San Antonio Water System

Annual Operating Budget and Capital Improvement Program

Fiscal Year Ending December 31, 2018 **San Antonio, Texas**

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ANNUAL OPERATING BUDGET
AND
CAPITAL IMPROVEMENT PROGRAM

FISCAL YEAR ENDING DECEMBER 31, 2018

DOUGLAS P. EVANSON
SENIOR VICE PRESIDENT & CHIEF FINANCIAL OFFICER

MARY E. BAILEY
VICE PRESIDENT - ACCOUNTING & BUSINESS PLANNING

PREPARED BY BUSINESS PLANNING DEPARTMENT:
LOUIS LENDMAN, BUDGET MANAGER
PATRICIA ARRIOLA
BEN BENZAQUEN
BENJAMIN KIDD
TAKASHI REINBOLD
ROBERT WALKER

MARK SCHNUR, SR. RESOURCE ANALYST

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GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished Budget Presentation Award

PRESENTED TO

San Antonio Water System

Texas

For the Fiscal Year Beginning

January 1, 2017

Christopher P. Morrill

Executive Director

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to **San Antonio Water System, Texas** for its annual budget for the fiscal year beginning **January 1, 2017**. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan and as a communications device.

This award is valid for a period of one year only. We believe our current budget continues to conform to program requirements, and we are submitting it to GFOA to determine its eligibility for another award.

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CITY OF SAN ANTONIO
MAYOR AND CITY COUNCIL

Ron Nirenberg
Mayor

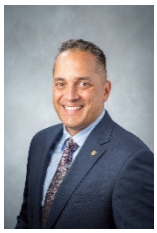
Roberto C. Treviño
District 1

William "Cruz" Shaw
District 2

Rebecca J. Viagran
District 3

Rey Saldaña
District 4

Shirley Gonzales
District 5



Greg Brockhouse
District 6

Ana Sandoval
District 7

Manuel "Manny" Pelaez
District 8

John Courage
District 9

Clayton Perry
District 10

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SAN ANTONIO WATER SYSTEM
BOARD OF TRUSTEES

Berto Guerra, Jr.
Chairman

Pat Jasso
Vice Chairman

Ernesto Arrellano, Jr.
Secretary

Louis E. Rowe
Assistant Secretary

Pat Merritt

David McGee

Ron Nirenberg, ex Officio

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SAN ANTONIO WATER SYSTEM
ORGANIZATION CHART

RATEPAYERS

MAYOR AND CITY COUNCIL

BOARD OF TRUSTEES

EXECUTIVE MANAGEMENT

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MISSION – VISION - VALUES

The mission and vision statements, combined with SAWS' intrinsic core values, provide the compass which serves to guide the activities, goals and objectives of SAWS leadership team and workforce.

SAWS' mission of sustainable, affordable water services defines its purpose in serving the ratepayers.

The vision statement – to be leaders in delivering responsible water services for life – along with the values of excellence, integrity and respect, make up SAWS' core philosophy, describing what we as an organization believe, where we stand today, and where we wish to be in the future.

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January 11, 2018

Mr. Berto Guerra, Jr., Chairman
Ms. Pat Jasso, Vice Chairman
Mr. Ernesto Arrellano, Jr., Secretary
Mr. Louis E. Rowe, Assistant Secretary
Ms. Pat Merritt, Trustee
Mr. David McGee, Trustee
Honorable Ron Nirenberg, Mayor

Honorable Mayor and Trustees:

I am pleased to present the 2018 Annual Operating Budget and Capital Improvement Program of the San Antonio Water System (SAWS), which has been prepared in accordance with the requirements of San Antonio City Ordinance No. 75686. Some of the key objectives of this budget are:

- Continued repair and replacement of aging infrastructure,
- Sustained investment in water supply initiatives in support of the 2017 Water Management Plan and,
- Compliance with the requirements of the Consent Decree entered into with the United States Environmental Protection Agency and Texas Commission on Environmental Quality relating to the reduction of sanitary sewer overflows.

In November 2017 the Board of Trustees approved the 2018 budget and recommended to the City Council that rates be adjusted effective January 1, 2018 and 2019 to provide the resources necessary to achieve both the 2018 budget objectives and the projected operating and capital requirements for 2019. On December 7, 2017, the City Council adopted the recommended rate adjustments. The 2018 rate adjustments consist of percentage increases of 9.7% for water delivery rates, 4.5% for water supply fee rates, 3.6% for wastewater rates, and 7.8% for recycled water rates. The average residential customer's bill, assuming 7,092 gallons of water and 5,668 gallons of sewer, will increase 5.8% in 2018. The 2019 rate adjustments consist of percentage increases of 0.4% for water delivery rates, 4.3% for water supply fee rates, 8.0% for wastewater rates, and 1.8% for recycled water rates. The average residential customer's bill will increase 4.7% in 2019.The rate adjustments are projected to generate a total of $36.3 million in additional revenues in 2018 and $27.2 million in 2019.

The 2018 budget balances revenue requirements for the fiscal year ending December 31, 2018 with available revenues and other funding sources. Highlights of the 2018 budget:

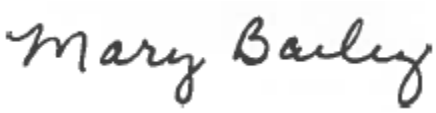
- Assumes 2018 billed water usage of 65.4 billion gallons
- Assumes Water customer growth of 1.5% and wastewater growth of 1.7% for a combined growth of 1.6%
- Includes estimated total Sources of Funds of $780.8 million, which is $60.1M or 8.3% higher than the 2017 Sources of Funds and comprised of:
  - Operating revenues totaling $695.2 million
  - Non-Operating revenues totaling $11.3 million
  - Equity transfer of $1.4 million
  - Capital recovery fees of $72.9 million
- Provides for funding of $339.9 million in operations and maintenance costs, reflecting a $15.0 million or 4.6% increase when compared to the 2017 Budget

- Assumes funding for $391.4 million of capital improvement projects
  - $44.6 million in Water Supply projects
  - $159.2 million in Water Delivery projects
  - $187.6 million in Wastewater projects
- Provides for $10.5 million in capital outlay funding for vehicles, equipment, and computer related capital
- Provides for $236.2 million in funding for debt service and expenses, which is $12.1 million or 5.4% higher than the 2017 budget for debt service and expenses
- Conservatively plans for debt coverage of 3.93 times for senior lien debt and 1.57 times for total bonded debt
- Includes a transfer of $18.1 million to the City of San Antonio

The annual budget process is an effort to strike the appropriate balance between ensuring that rates remain affordable for SAWS customers and ensuring the ongoing operational and financial integrity of the organization. The 2018 Annual Operating Budget and Capital Improvement Program will allow the San Antonio Water System to continue providing high quality water, wastewater, recycled water, and chilled water services at reasonable costs, while also maintaining a healthy financial position.

Respectfully submitted,

Douglas P. Evanson
Senior Vice President/Chief Financial Officer



Mary Bailey
Vice President – Accounting & Business Planning

Budget Summary

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BUDGET SUMMARY

The 2018 budget presents a comprehensive projection of San Antonio Water System (SAWS) operations from January 1, 2018 through December 31, 2018. This budget summary describes the key recommendations encompassing the 2018 Adopted Budget.

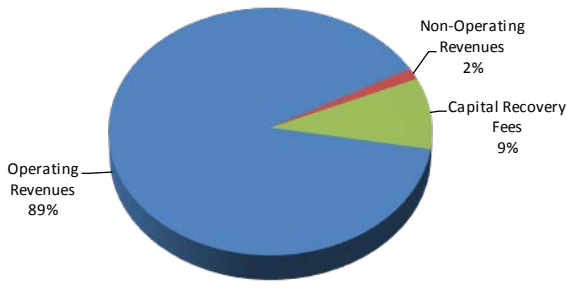
In November 2017, the Board of Trustees adopted a combined 5.8% rate adjustment in water delivery, water supply and wastewater rates to support the requirements of the 2018 budget. A summary of these requirements, as well as the sources of funding to meet these requirements is provided in the table below.

	$ in Millions			
	2017 Budget	2018 Budget	Change	% Change
Sources of Funds				
Operating Revenues	$ 651.7	$ 695.2	$ 43.5	6.7%
Non-Operating Revenues	8.0	11.3	3.3	41.3%
Draw on Equity	4.9	1.4	(3.5)	-71.4%
Capital Recovery Fees	56.1	72.9	16.8	29.9%
Total	**$ 720.7**	**$ 780.8**	**$ 60.1**	**8.3%**
Uses of Funds				
Operations and Maintenance	$ 324.9	$ 339.9	$ 15.0	4.6%
Debt Service and Expenses	224.1	236.2	12.1	5.4%
Transfer to City of San Antonio	16.8	18.1	1.3	7.7%
Available for Renewal and Replacement - Restricted	57.9	75.3	17.4	30.1%
Available for Renewal and Replacement - Unestricted	97.0	111.3	14.3	14.7%
Total	**$ 720.7**	**$ 780.8**	**$ 60.1**	**8.3%**

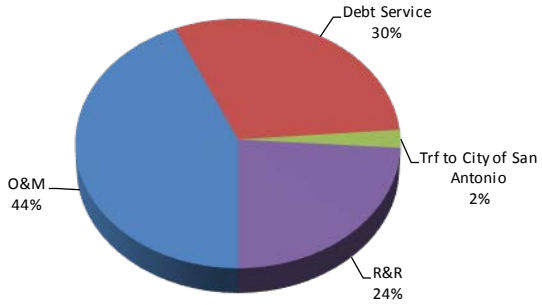
The 2018 budget presents a financial plan designed to continue SAWS' mission to provide sustainable affordable water services. The budget balances revenue requirements with available revenues and other funding sources. Some of the key objectives of the plan are:

- Continued repair and replacement of aging infrastructure,
- Sustained investment in water supply initiatives in support of the 2017 Water Management Plan and,
- Compliance with the requirements of the Consent Decree entered into with the United States Environmental Protection Agency and Texas Commission on Environmental Quality relating to the reduction of sanitary sewer overflows.

SOURCES OF FUNDS
$780.8 MILLION



USES OF FUNDS
$780.8 MILLION



OPERATIONS AND MAINTENANCE (O&M) BUDGET HIGHLIGHTS

The 2018 O&M budget totals $339.9 million. This is an increase of $15.0 million, or 4.6% compared to $324.9 budgeted in 2017. The table below summarizes the primary drivers for the change in the O&M budget from 2017 to 2018.

	$ in Millions	
2017 O&M Budget		**$ 324.9**
Increase in positions, base wages, other compensation and benefits	$ 5.6	
Additional costs to support regulatory compliance	2.3	
Vista Ridge electrical service payment	4.8	
Automated Metering Infrastructure (AMI) pilot	1.6	
Other O&M changes (net)	0.7	
Net increase in O&M		15.0
2018 O&M Budget		**$ 339.9**

The increase in salary and benefits includes funds for 11 additional full-time equivalent (FTE) positions in Engineering to support the growing capital program, employee wages increases averaging 3%, and an additional $1 million in employee benefits to support a decrease in the discount rate from 6.75% to 6.5% for the SAWS Retirement Plan. Funds are also provided to support water and wastewater regulatory compliance. These funds support well plugging, manhole rehabilitation and certain wastewater treatment activities. Additional O&M funds have also been provided in 2018 to fund $4.8 million for electrical service for the Vista Ridge supply facilities, which is needed to meet SAWS obligations under the Water Transmission and Purchase Agreement (WTPA). The 2018 budget also includes $1.6 million to conduct an Automated Metering Infrastructure (AMI) pilot program.

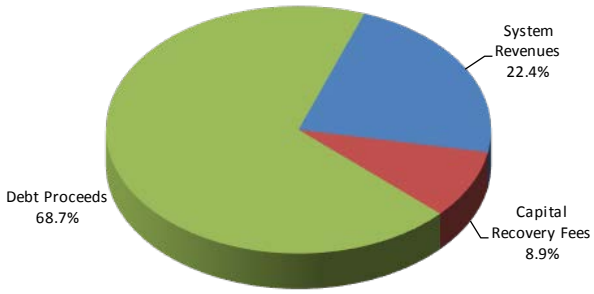
CAPITAL IMPROVEMENT PROGRAM (CIP) HIGHLIGHTS

The projected 2018 Capital Improvement Program (CIP) totals $391.4 million. The planned projects include:

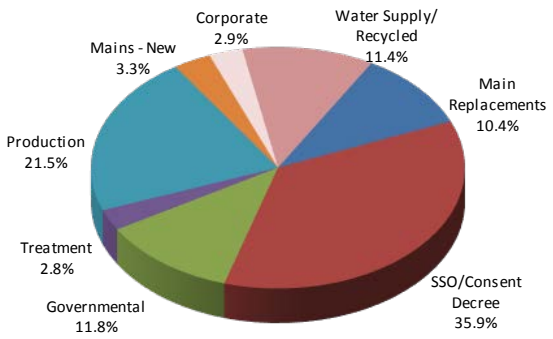
- Improvements necessary to comply with the federal Consent Decree requiring major capital improvements to address sanitary sewer overflows (SSOs),
- Improvements to water production and wastewater treatment facilities,
- Water and sewer main replacements and relocation that support City of San Antonio, Bexar County, and Texas Department of Transportation (TXDOT) street, highway, and drainage improvements,
- Replacement of other deteriorating water mains, and
- New water and sewer mains in support of growth within SAWS service area.

The 2018 budget assumes that approximately 69% of the funds necessary to complete the 2018 CIP will be provided by the issuance of additional debt while the remaining funds will be provided by a combination of revenues and impact fees.

SOURCES OF FUNDS
2018 CIP FUNDING
$391.4 MILLION



USES OF FUNDS
2018 CIP BY CATEGORY
$391.4 MILLION



FIVE-YEAR CIP PROJECTION BY CATEGORY

Over the next five years, SAWS expects to invest more than $2.0 billion in capital improvements, the majority of which will be focused on improvements to our wastewater system in support of our obligations under the federal Consent Decree.

$ in millions

Core Business/ Category	2018	2019	2020	2021	2022	Total 2018-2022
Water Delivery						
Corporate - WD	$ 4.8	$ 22.2	$ 32.5	$ 37.2	$ 22.8	$ 119.5
Governmental	22.1	32.0	38.8	35.6	33.9	162.4
Mains - New	7.5	4.5	9.0	7.7	21.6	50.3
Main Replacements - Water	40.7	35.0	29.2	25.2	26.1	156.2
Production	84.1	48.0	21.4	28.8	49.0	231.3
Water Delivery Total	**159.2**	**141.7**	**130.9**	**134.5**	**153.4**	**719.7**
Wastewater						
Corporate - WW	6.6	10.4	20.2	23.6	14.4	75.2
Governmental	24.1	25.5	35.9	34.4	32.7	152.7
Main Replacements - Sewer	140.5	129.6	113.9	209.8	95.6	689.4
Mains - New	5.4	10.3	1.2	1.3	3.0	21.2
Collection Facilities	-	2.9	6.8	22.0	-	31.7
Treatment	11.0	33.1	39.5	11.0	64.1	158.7
Wastewater Total	**187.6**	**211.8**	**217.5**	**302.1**	**209.8**	**1,128.9**
Water Resources						
Corporate - WR	-	2.8	3.8	-	-	6.6
Desalination	2.8	-	1.2	-	-	4.0
ASR	1.4	-	18.1	11.2	5.1	35.9
Expanded Carrizo	-	-	-	-	0.3	0.3
Vista Ridge Integration	2.8	2.6	-	-	-	5.4
WRIP	37.1	58.2	7.6	-	-	102.9
Water Resources Total	**44.1**	**63.6**	**30.7**	**11.2**	**5.4**	**155.1**
Recycled Water	**0.5**	**0.3**	**0.3**	**0.3**	**4.7**	**6.1**
Grand Total	**$ 391.4**	**$ 417.4**	**$ 379.4**	**$ 448.1**	**$ 373.3**	**$ 2,009.8**

IMPACT ON RATES

To support the requirements of the 2018 budget, a 5.8% rate adjustment is required for the average residential customer (assuming 7,092 gals water and 5,668 gallons sewer usage per month).

The SAWS Board and the City Council also approved rate adjustments for 2019 at the same time the 2018 rate adjustments were approved. The two years of rate adjustments reflects the commitment of the SAWS Board and the City Council to continued improvement and maintenance of water and sewer infrastructure in San Antonio.

Rate Category	2018 Adjustment	2019 Adjustment
Wastewater	3.60%	8.00%
Water Delivery	9.70%	0.40%
Water Supply	4.50%	4.30%
Combined Impact on Average Residential Customer *	5.80%	4.70%
Recycled Water	7.60%	1.80%

* Average based on 7,092 gallons water/5,668 gallons sewer usage per month excluding EAA and TCEQ pass-through fees and City storm water fees.

Community Profile

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COMMUNITY PROFILE

Beyond its role as a significant population and business center within the state of Texas, San Antonio possesses a deep history that dates back to the 1700's. In 1718, Spanish monks built a mission named San Antonio de Valero on the site of a Coahuiltecan Indian village. Eventually, this mission would be named the Alamo, where Texan forces fought Mexican soldiers to the death during the Texas revolution. This battle has made the Alamo a symbol of Texas' liberty and prosperity. Following the revolution, Texas was annexed into the United States and San Antonio served as a place of cultural convergence that has shaped it into the city that it is today.

LOCATION

San Antonio, the county seat of Bexar County (pronounced "bear"), is located in south central Texas. The city encompasses a total geographic area of 486 square miles and is:

- 80 miles south of Austin (state Capitol)
- 280 miles south of Dallas
- 200 miles west of Houston
- 140 miles northwest of the Gulf of Mexico
- 150 miles northeast of the city of Laredo on the Mexican border

CLIMATE

With its location on the northwest edge of Texas' Gulf Coastal Plain, San Antonio experiences a modified subtropical climate. Average temperatures range from 50 degrees in January to the mid-90s in July and August. While the summer is hot, with daily temperatures above 90 degrees over 80% of the time, extremely high temperatures are relatively uncommon. Mild weather prevails during the winter months, with temperatures below freezing occurring on an average of about 20 days per year. Average yearly long-term rainfall is approximately 32 inches. The extremes vary from 10.11 inches in 1917 to 52.28 inches in 1973.

POPULATION

According to 2016 estimates by the US Census Bureau, the city of San Antonio is the seventh most populous city in the United States and the second most populous city in Texas. The San Antonio-New Braunfels Metropolitan Statistical Area (MSA) includes Atascosa, Bandera, Bexar, Comal, Guadalupe, Kendall, Medina, and Wilson counties and was estimated to contain 2.43 million people in 2016. The San Antonio-New Braunfels MSA ranks twenty-fourth among national MSAs and third among those in Texas.

The following table provides the population of the City, Bexar County, and the San Antonio-New Braunfels MSA for the years shown:

Year	City of San Antonio	Bexar County	San Antonio-New Braunfels MSA
2016 (Estimated)	1,492,510	1,928,680	2,429,609
2010	1,327,407	1,714,773	2,142,508
2000	1,144,646	1,392,931	1,711,703
1990	935,933	1,185,394	1,407,745
1980	785,880	988,800	1,154,648
1970	654,153	830,460	951,876
1960	587,718	687,151	796,792
1950	408,442	500,460	603,775
1940	253,854	338,176	437,854
1930	231,542	292,533	389,445
1920	161,379	202,096	289,089

As of June 2003, the U.S. Office of Management and Budget redefined the MSA by increasing the number of counties from four to eight: Atascosa, Bandera, Kendall, and Medina Counties were added to Bexar, Comal, Guadalupe, and Wilson Counties. (The 2000 figure reflects the new 2003 redefined eight-county area.) As of December 2009, New Braunfels, Texas qualified as a new principal city of the San Antonio MSA, and the MSA was retitled San Antonio-New Braunfels MSA. Data for 1920-1990 has been restated from the redefined eight-county MSA to the original four-county MSA.

Sources: U.S. Census Bureau; Texas Association of Counties – County Information Project; City of San Antonio

EDUCATION

Within 50 miles of San Antonio, 15 colleges and universities offer degrees in all major fields of study and educate more than 159,000 students.

Institution	Certified Fall 2015	Certified Fall 2016	Change	% Change
Texas State University	37,979	38,808	829	2.18%
The University of Texas at San Antonio	28,787	28,959	172	0.60%
San Antonio College	20,638	19,028	(1,610)	-7.80%
Northwest Vista College	16,656	16,793	137	0.82%
St. Philip's College	11,198	11,604	406	3.63%
Palo Alto College	8,671	9,108	437	5.04%
University of the Incarnate Word of San Antonio	8,598	8,597	(1)	-0.01%
Texas A&M University-San Antonio	4,564	5,474	910	19.94%
St. Mary's University	3,592	3,531	(61)	-1.70%
Wayland Baptist University	3,592	3,510	(82)	-2.28%
Northeast Lakeview College	3,332	3,484	152	4.56%
Our Lady of the Lake University	3,334	3,292	(42)	-1.26%
The University of Texas Health Science Center at San Antonio	3,130	3,250	120	3.83%
Trinity University	2,439	2,462	23	0.94%
Texas Lutheran University	1,373	1,295	(78)	-5.68%
Total	**157,883**	**159,195**	**1,312**	**0.83%**

Source: Texas Higher Education Coordinating Board

ECONOMY

San Antonio boasts a favorable business environment that supports economic diversification and growth. This diversification can be seen by the large variety of industries that have major operations in the city, including the aerospace, bioscience/healthcare, environmental/green technology, financial services information technology and cyber security, and manufacturing industries along with the military. All of these industries are supported by the city's commitment to strengthen infrastructure improvements and to invest in a growing and dedicated workforce.

The San Antonio Economic Foundation, a private, nonprofit organization that assists business and industry relocating or expanding into the San Antonio area, the Greater San Antonio Chamber of Commerce and the U.S. Bureau of Labor Statistics are the sources of the following information on local industry.

AEROSPACE/AVIATION

The local aerospace industry includes a range of businesses that manufacture aircraft equipment and parts, service and repair aircraft, produce and distribute air transportation equipment and supplies, provide both scheduled and unscheduled air transportation, and operate flight schools. The local combined aerospace-related maintenance, repair and operations, manufacturing, military and air transportation services industry provides over 13,000 jobs. Most of these jobs are concentrated at the San Antonio International Airport and Port San Antonio which occupies the facilities formerly operated by the U.S. Air Force as Kelly Air Force Base.

BIOSCIENCE/HEALTHCARE

As one of San Antonio's leading industries, the healthcare and bioscience industry has shown steady growth and innovation over the past two decades. The industry is composed of health services and related industries such as research, pharmaceuticals, and medical device manufacturing. In the Hospitals and Ambulatory Health Care Services employment subsectors alone there were over 98,000 jobs in 2017 in the local area. Employment in these two subsectors has increased by over 40% since 2007.

FINANCIAL SERVICES

The Financial Services industry in San Antonio includes the following sectors: banking and credit; investment activities; insurance; funds, trusts and other financial vehicles; accounting and bookkeeping. San Antonio's financial sector employs more than 87,000 people. It is one of the city's most stable, promising and significant business sectors and has grown in number of jobs by over 31% since 2007.

INFORMATION TECHNOLOGY/CYBER SECURITY

The Information Technology (IT) industry plays a major role in San Antonio. According to a recent economic impact study, in 2014, San Antonio's IT industry consisted of over 34,000 IT professionals and generated an economic impact of nearly $10 billion. The industry itself is both large and diverse, with over 1,000 IT companies in and around San Antonio.

MANUFACTURING

San Antonio has a large and diverse manufacturing industry, with a representation of every major sector of U.S. manufacturing present in the community, including materials and electricity, equipment and metal, transportation, and diversified products. This sector employs almost 50,000 people in the San Antonio area as of September 2017.

MILITARY/DEFENSE

The U.S. military has had a significant and historic presence in San Antonio dating back well into the 19th century. The military mainly operates in San Antonio today under the framework known as Joint Base San Antonio (JBSA). JBSA has a substantial impact on the local economy in San Antonio and in Texas. The Texas Comptroller of Public

Accounts and JBSA registered an impact estimated at $48.7 billion overall. In fact, JBSA contributes 65% of Texas' total military GDP and generates an annual disposable personal income of approximately $17 billion. Military employment accounts for 3.4% of the area's total employment.

EMPLOYMENT

The San Antonio economy has experienced robust, sustained growth since the mid-1990's. This economic growth coupled with the net in-migration trends experienced in many areas of Texas has resulted in population growth that has exceeded national averages. While job growth slowed significantly during the national downturn experienced from 2008-2012 (average annual growth of 1.1%), growth has steadily increased since 2012 through 2017 at an average annual rate of 3.2%. The diversity of the San Antonio economy has provided a measure of stability through up and down economic cycles. Specifically, San Antonio's strategic positions in key employment sectors including government and military, biomedical sciences, medical services, tourism, and hospitality contribute to this stability. San Antonio's favorable economic position relative to the nation is reflected in the fact that, according to the U.S. Bureau of Labor Statistics, as of December 2017, the San Antonio MSA unemployment rate was 3.0%, while the nation's was 4.1%.

A summary of San Antonio's nonagricultural employment by industry since 2008 is as follows:

San Antonio MSA Non-Farm Employment by Industry (2008 - 2017)

as of December of each year 2008-2017

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Natural Resources, Mining and Construction	63,100	57,400	58,700	57,900	51,100	47,000	44,000	45,200	48,600	55,500
Manufacturing	48,300	48,100	47,400	47,000	46,300	46,900	46,400	45,300	43,500	45,600
Trade, Transportation and Utilities	187,100	186,500	181,300	175,000	166,700	159,000	153,700	149,400	148,500	154,600
Information	20,500	21,100	21,500	21,800	21,500	20,500	19,700	18,400	18,600	21,000
Financial Activities	90,100	89,000	86,200	82,400	78,600	76,300	71,900	69,800	67,100	67,400
Professional and Business Services	138,000	133,500	126,900	122,800	117,300	114,100	108,200	104,300	105,800	107,800
Educational and Health Services	163,100	161,300	153,900	147,400	142,200	138,700	137,100	131,900	127,100	122,900
Leisure and Hospitality	134,000	127,800	123,000	117,700	114,200	110,800	105,600	101,200	97,500	99,300
Other Services	38,000	37,300	36,100	35,900	35,300	34,500	32,800	33,000	32,000	31,800
Government	174,100	172,300	171,300	168,200	165,700	164,300	163,700	166,200	163,900	160,100
Total Non-Farm Employment	1,056,300	1,034,100	1,005,100	976,100	938,900	912,100	883,100	864,700	852,600	866,000

Source: U.S. Bureau of Labor Statistics

In addition to the wide selection of employment and job opportunities, the cost of living in San Antonio is relatively low. The city is especially competitive in housing, groceries, and utilities. These economic benefits help to attract San Antonio's workforce, employers, and students to the city.

San Antonio Water System Profile

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SAN ANTONIO WATER SYSTEM PROFILE

HISTORY

SAWS was created in 1992 through the consolidation of three predecessor agencies: the City Water Board (the previous city-owned water supply utility); the City of San Antonio Wastewater Department (a department of the city government responsible for sewage collection and treatment); and the Alamo Water Conservation and Reuse District (an independent city agency created to develop a system for reuse of the city's treated wastewater). In addition, the water resources planning staff of the City Planning Department was realigned to the new agency to provide combined water related services for the San Antonio area.

On January 1, 2017, SAWS completed all legally required steps to fully integrate the operations and customers of the former Bexar Metropolitan Water District (BexarMet) with SAWS. This final step of full integration included the application of consistent rates for both existing SAWS and former BexarMet customers.

GOVERNANCE

San Antonio Water System is a public utility owned by the City of San Antonio. It is the largest municipally-owned water, wastewater, chilled water, and recycled water utility in the San Antonio/Bexar County area. SAWS provides service to the majority of the population within the corporate limits of the City and Bexar County. SAWS maintains more than 12,500 miles of water and sewer mains.

Complete management and control of SAWS is vested in a Board of Trustees consisting of the mayor and six members who are appointed by the San Antonio City Council, and serve staggered four-year terms. The mayor of San Antonio serves as an ex-officio voting member. The general operations of the utility are under the supervision of the President/Chief Executive Officer.

SERVICE AREA

WATER DELIVERY AND WASTEWATER

SAWS' water delivery service area currently extends over approximately 941 square miles, making it the largest water purveyor in Bexar County. The service area includes most of Bexar County, several suburban municipalities and parts of adjacent counties. In addition to serving its own retail customers, SAWS also provides wholesale water to a few smaller utility systems within this area.

SAWS provides potable water service to residential, commercial, multifamily, industrial and wholesale accounts. As of December 31, 2017, the water delivery system provides potable water service to 496,543 customer connections.

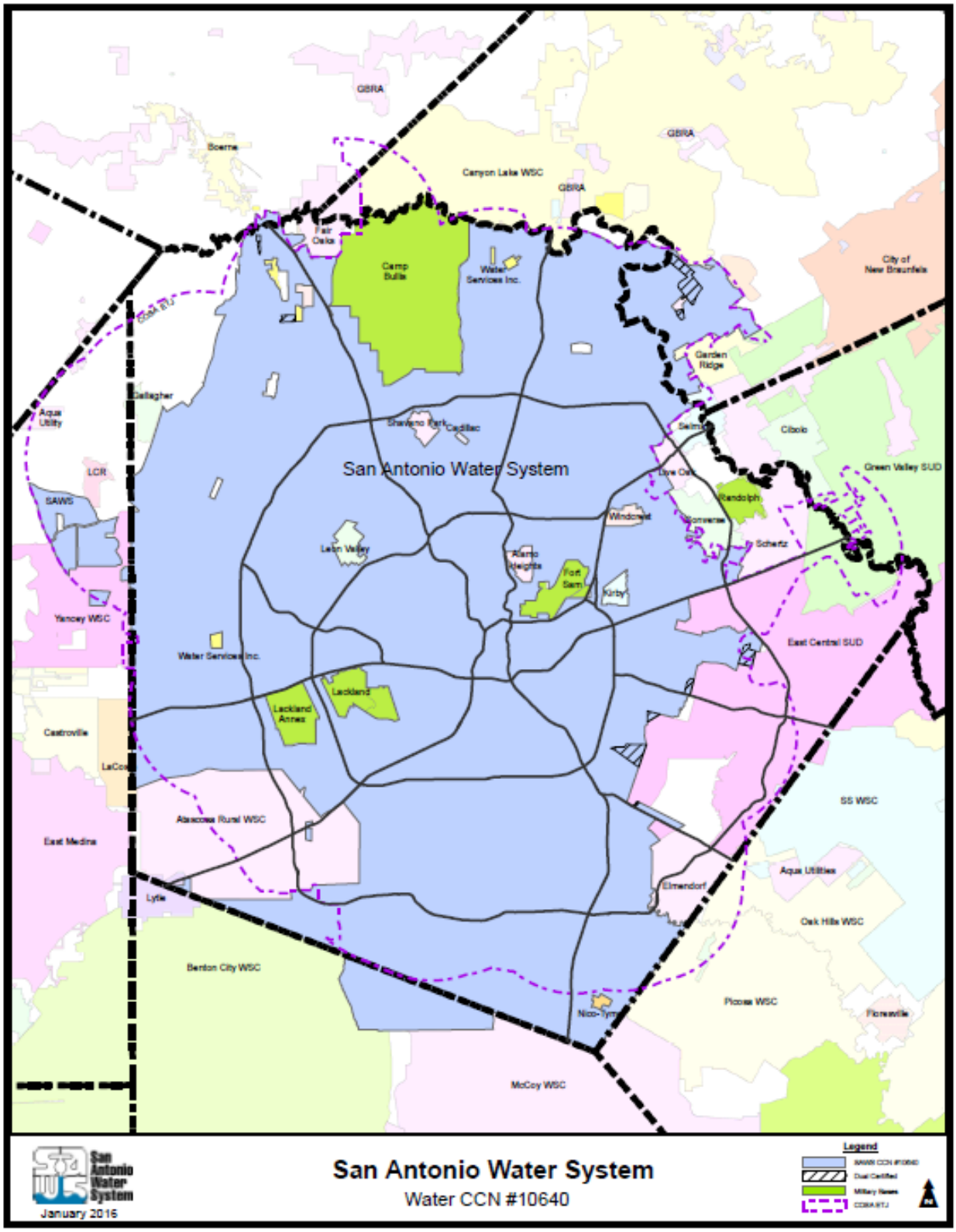
The water delivery system currently utilizes 125 elevated and ground storage tanks with a combined storage capacity of 277.2 million gallons. As of December 31, 2017, SAWS had installed 7,060 miles of distribution mains, ranging in size from 1 inch to 96 inches in diameter and 40,872 fire hydrants were in service.

A somewhat different area, following natural watersheds, is defined for wastewater collection and treatment. SAWS is the largest wastewater treatment agency in the San Antonio area. SAWS also provides collection and treatment services by contract to developments outside its defined service area to avoid unnecessary proliferation of state wastewater discharge permits. The wastewater system has certain prescribed boundaries that currently

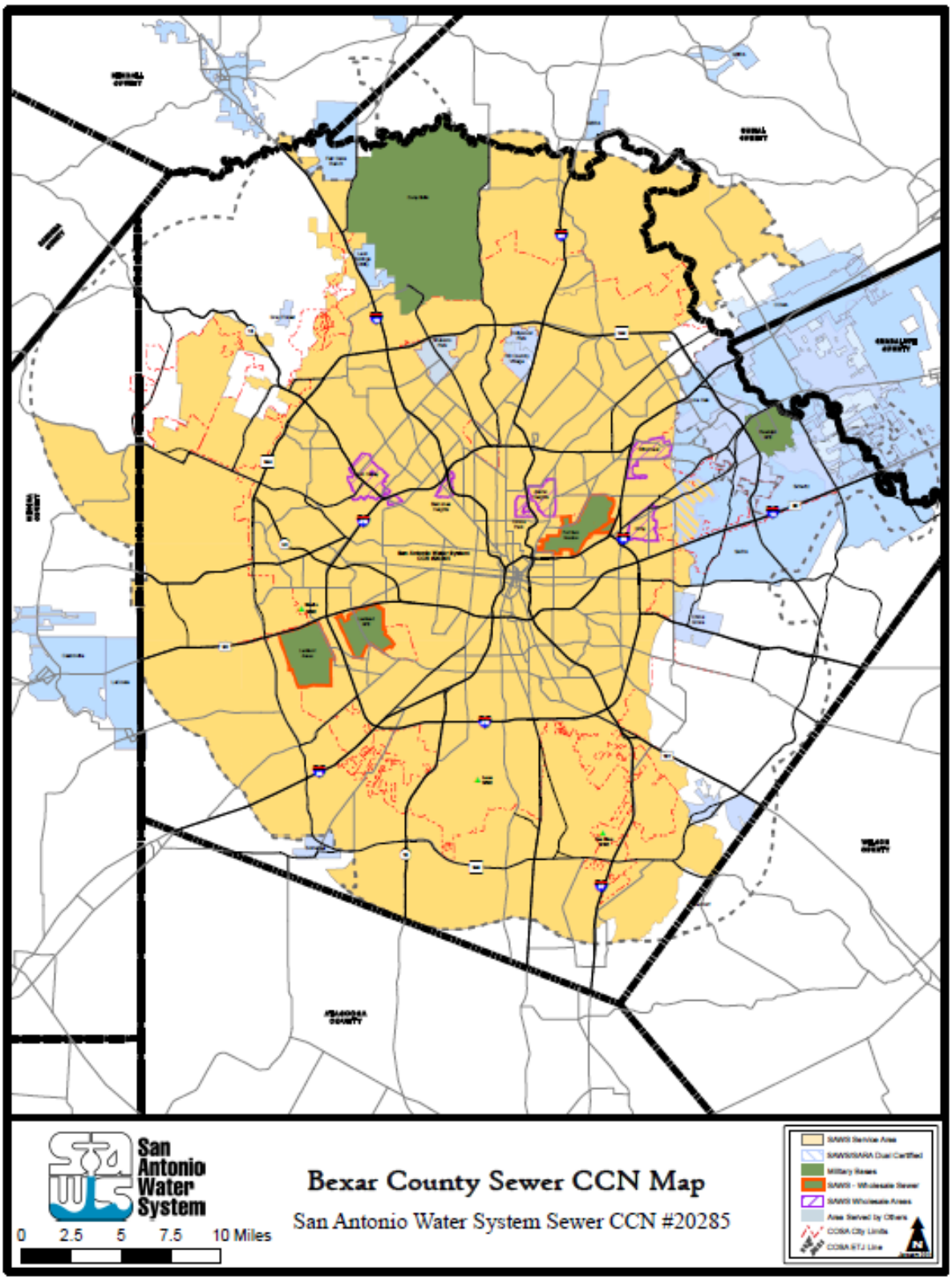
cover an area of approximately 862 square miles. As of December 31, 2017, SAWS provided wastewater services to 445,023 customer connections, including 12 wholesale sewer connections.

The wastewater system is composed of approximately 5,482 miles of mains and three major treatment plants: Dos Rios Water Recycling Center, Leon Creek Water Recycling Center and Medio Creek Water Recycling Center.

WATER SERVICE AREA



WASTEWATER SERVICE AREA

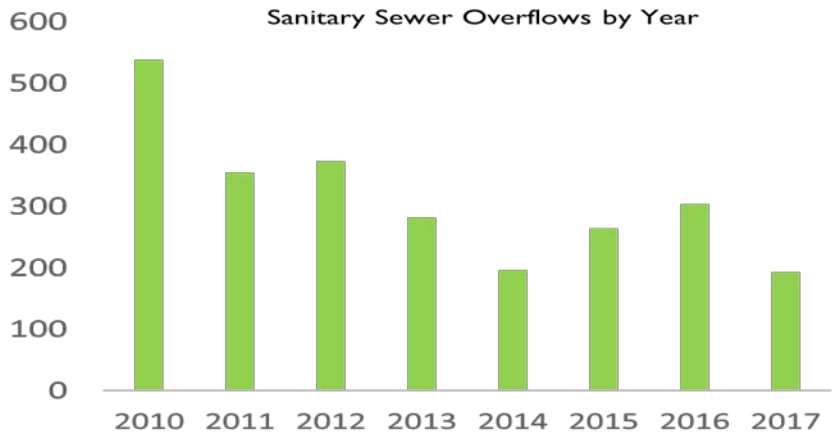


CHILLED WATER SYSTEM

SAWS owns, operates, and maintains five thermal energy facilities providing chilled water services to governmental and private entities. Two of the facilities, located in the City's downtown area, provide chilled water to 21 customers. They include various City facilities such as the Henry B. Gonzalez Convention Center and the Alamodome, which constitute a large percentage of the downtown system's chilled water annual production requirements. In addition to City facilities, the two central plants also provide chilled water service to a number of major hotels in the downtown area, including the Grand Hyatt, Marriott Riverwalk and Hilton Palacio Del Rio. The other three thermal facilities, owned and operated by SAWS, are located at the Port San Antonio industrial area and provide chilled water to large industrial customers that include Boeing Aerospace and Standard Aero. SAWS' chilled water producing capacity places it as one of the largest producers of chilled water in south Texas.

SEWER MANAGEMENT

In June 2013, SAWS approved a settlement with the U.S. Environmental Protection Agency (EPA) that will require additional work over 10 to 12 years to reduce sanitary sewer overflows (SSOs). The work required to comply with the consent decree includes system-wide inspection, cleaning and evaluation of sanitary sewer pipelines. Additionally, increased investment in the replacement and rehabilitation of aging sewer infrastructure is necessary. The targeted replacement and rehabilitation program will be specifically tailored based on extensive condition assessments currently being performed. SAWS has significantly reduced the number of SSOs as result of efforts made since 2012 to clean and replace sewer pipelines. The following chart shows the number of SSOs since 2010.



The 2018 O&M budget includes $29 million in operating costs related to program management, televising and cleaning sewer mains, capacity assessment activities, and repair of sewer infrastructure. Additionally, $140.5 million in capital project investments are planned in 2018 to rehabilitate aging sewer infrastructure and address system capacity issues.

WATER SUPPLY

Historically, San Antonio obtained nearly all of its water from the Edwards Aquifer. In 1993, the Texas Legislature created the Edwards Aquifer Authority (EAA) as a conservation and reclamation district. The EAA has broad powers to manage, conserve, preserve, and protect the Edwards Aquifer and to increase the recharge of, and limit withdrawals from, the Edwards Aquifer through a permitting system that ensures continuous minimum spring flows of the Comal Springs (in New Braunfels) and the San Marcos Springs are maintained to protect endangered and threatened species.

In 1996, the City Council appointed a 34-member Citizens Committee to develop strategic policies and goals for water resource management. The Citizens Committee on Water Policy report, entitled "A Framework for Progress: Recommended Water Policy Strategy for the San Antonio Area," was unanimously accepted by City Council, becoming the foundation for SAWS' *1998 Water Resource Plan*. In November 1998, the City Council accepted the *1998 Water Resource Plan* "Securing our Water Future Together" as the first comprehensive, widely supported water resource plan for San Antonio. The *1998 Water Resource Plan* established programs for immediate implementation, as well as a process for developing long-term water supplies. In October 2000, the City Council created a permanent funding mechanism, the Water Supply Fee, for water supply development and water quality protection.

The *1998 Water Resource Plan* has been updated numerous times. The recently approved *2017 Water Management Plan* is the current version of SAWS long range planning efforts. The 2017 Water Management Plan charts the path that SAWS plans to pursue to meet the long-term needs of current and future San Antonio residents through 2070 – even during periods of extreme drought.

CURRENT SOURCES OF WATER SUPPLY

The table below provides a summary of the available sources of water supply under non-drought conditions for SAWS:

Available Sources of Water Supply Budgeted for 2018
Under Non-Drought Conditions

Source	Acre-Feet
Edwards Aquifer	276,283
Recycled Water (CPS Energy Power Plants)	50,000
Recycled Water (Direct Customers)	25,000
Regional Carrizo	11,557
Canyon Regional Water Authority	5,300
Medina Surface Water	-
Canyon Lake	8,800
Local Carrizo	9,900
Trinity Aquifer	13,262
Brackish Groundwater Desalination	13,440
Total	**413,542**

EDWARDS AQUIFER

The largest amount of SAWS water holdings is Edwards Aquifer permitted groundwater withdrawal rights. In 2018, SAWS has budgeted for a total inventory of 276,283 acre-feet per year of EAA-permitted groundwater withdrawal rights. Access to these permitted groundwater withdrawal rights is subject to varying levels of availability (cutbacks) depending on a management system using water levels at key index wells and spring flows. These cutbacks in any given year may range from 0% to 44%. The following table shows annual average cutbacks for the last five years.

Year	EAA Cutback	J-17 Index Well - average level
2013	28.92%	644.4
2014	34.90%	636.3
2015	19.71%	652.9
2016	0.00%	672.3
2017	3.40%	670.4

Through SAWS' Aquifer Storage and Recovery facility (ASR), SAWS is able to store Edwards Aquifer water in a portion of the Carrizo Aquifer located in southern Bexar County during wet times or periods of low customer demand. This water can be recovered during periods of drought in order to augment SAWS' available water supplies to meet customers' water demands. As of December 31, 2017, 153,949 acre-feet of Edwards Aquifer is currently stored in the ASR.

In connection with the EAA's directive by the Texas Legislature to ensure that continuous minimum spring flows of the Comal Springs and the San Marcos Springs are maintained to protect endangered and threatened species, the Edwards Aquifer Recovery Implementation Program (EARIP) was established in 2007. The EARIP was developed through a consensus-based process that involved input from the U.S. Fish and Wildlife Service (USFWS), other appropriate federal agencies, and all interested stakeholders in the Edwards region. Together, these entities over a four-year period developed and approved a springflow protection and habitat restoration plan, the Edwards Aquifer Habitat Conservation Plan (EAHCP).

The primary parties to the EAHCP include the EAA, SAWS, the City of New Braunfels, the City of San Marcos and Texas State University. The EAHCP was used by the USFWS as the basis for issuing an Incidental Take Permit (ITP) which will protect San Antonio and the region from the threat of future environmental lawsuits and federal control of the aquifer over a 15-year term. This ITP was issued by the USFWS on March 18, 2013.

A major component of the EAHCP includes the use of the SAWS ASR facility in conjunction with other measures to contribute to modeled spring flow protections during severe droughts. After the approval of the EAHCP, SAWS and the EAA entered into an Interlocal Contract in August 2013 that details the implementation of the ASR strategy contributing to springflow protection. The EAA itself, or by use of an agent, acquires Edwards Aquifer groundwater withdrawal rights which are conveyed to SAWS for storage at ASR. An amount commensurate to the water conveyed on behalf of the region will be forborne from SAWS Edwards Aquifer production when specified triggers during a drought similar to Texas' drought of record are met. The contract, and amount of water leased by the EAA and conveyed to SAWS to store, limits the forbearance SAWS is obligated to perform over the term of the ITP. SAWS is reimbursed by the EAA for the incremental cost of storing EAHCP water in ASR and withdrawing that water during drought of record conditions to cover its forbearance requirements under the agreement.

Recycled Water

The San Antonio Water System has the largest recycled water system in the United States and is permitted to sell Type I (high quality) recycled water from its wastewater treatment plants. The water recycling program is designed to provide up to 25,000 acre-feet per year of recycled water to commercial and industrial businesses in the City. This water recycling system was originally comprised of two transmission lines, running north and south on the eastern and western sides of the city. In 2008, these two major transmission lines were interconnected at the northern end, providing additional flexibility to this valuable water resource. Currently, approximately 130 miles of pipeline deliver highly treated effluent to 126 customer connections. Recycled water is being delivered for industrial processes, cooling towers, and irrigation of golf courses and parks, all of which would otherwise rely on potable-quality water. Aside from supporting the local economy, this water recycling system also releases water into the upper San Antonio River and Salado Creek to sustain river flows. The result has been significant and lasting environmental improvements for the aquatic ecosystems in these streams.

Under a recycled water supply contract, SAWS also provides up to 50,000 acre-feet of water to San Antonio's municipally owned electric and gas utility, CPS Energy. This water is discharged by San Antonio's three Water Recycling Centers and then flows to a downstream location on the San Antonio River where CPS Energy diverts the water into Braunig and Calaveras Lakes to provide cooling water for its nearby power plants.

Regional Carrizo

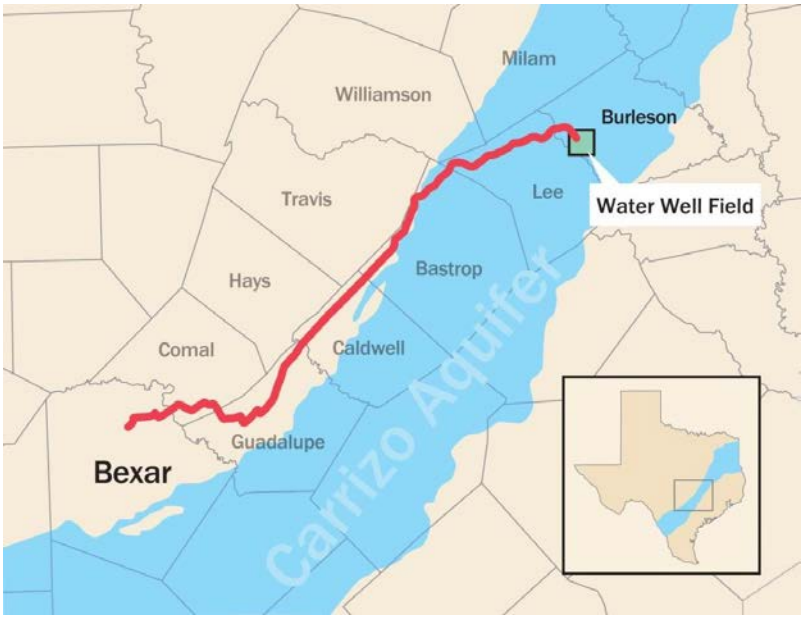
As part of diversifying SAWS' water portfolio, a regional partnership with Schertz-Seguin Local Government Corporation (SSLGC) was formed. The Regional Carrizo project is located in Gonzales County, approximately 50 miles from San Antonio. This project allows SAWS to utilize available capacity in an existing pipeline and water treatment plant owned and operated by SSLGC. In 2017, this project provided 13,188 acre-feet of water to SAWS customers, from the Carrizo Aquifer in western Gonzales County. In 2018, SAWS has budgeted for 11,557 acre-feet of water from the Regional Carrizo project, including the purchase of an additional 500 acre-feet of water from SSLGC.

Brackish Groundwater Desalination

In January 2017, Phase 1 of SAWS Brackish Groundwater Desalination (BGD) plant came on line. The plant produces brackish water from the Wilcox Aquifer in southern Bexar County and treats it to drinking water quality standards. Phase I of the plant has the capacity to provide 13,440 acre-feet per year of drought-proof desalinated groundwater to San Antonio's taps. Future phases will eventually bring the total supply from this program to 33,600 acre-feet per year. The desalination plant is located at the newly named H_2Oaks Center in south Bexar County, where three sources of water are managed: Brackish groundwater, Aquifer Storage and Recovery (ASR) and Local Carrizo. The Center provides research facilities for college/university students to help improve water technology and processes and offers educational tours to the public.

Future Sources of Water Supply

Vista Ridge – Regional Water Supply



In October 2014, the City Council adopted an ordinance, approving the execution of a Water Transmission and Purchase Agreement (WTPA) between the City, acting by and through SAWS, and Vista Ridge LLC to provide up to 50,000 acre-feet of potable water per year for an initial period of 30 years. This project represents a significant diversification of SAWS' water sources as the water provided, if delivered at the maximum amount, will account for approximately 20% of the SAWS' current annual usage.

The project achieved financial close in November 2016 and is now in the construction phase. During this phase, Vista Ridge LLC will construct well fields to withdraw water from the Carrizo and Simsboro aquifers in Burleson County, Texas pursuant to currently-held long-term leases with landowners and construct a 142-mile pipeline from this well field to northern Bexar County. The pipeline will be connected to the SAWS distribution system at this delivery point in northern Bexar County. The anticipated capital cost of SAWS improvements necessary to receive and distribute this water is approximately $145 million.

In accordance with the WTPA, SAWS will pay costs arising under the Agreement, as a maintenance and operating expense of the System for rate setting purposes, for water made available. In May 2016, SAWS exercised its contractual right to fix the Capital and Raw Groundwater Unit Price under the Agreement based on the methodology provided for therein. This action served to lock in the price of the water component of SAWS annual payment requirement at $1,606 per acre foot for the entire 30 year term of the WTPA. In addition to the Capital and Raw Groundwater Unit Price, SAWS will pay operations and maintenance costs as a direct pass through under the Agreement and electricity cost. It is estimated that the water will initially cost approximately $2,000 per acre foot, resulting in an estimated initial annual cost of approximately $100 million for 50,000 acre feet of delivered water.

At the end of the WTPA, the well fields, pipeline and related infrastructure will transfer to SAWS at no additional cost. Under an agreement with Blue Water Vista Ridge, the owner of the groundwater leases, SAWS will have the ability to continue production for an additional 30 year term.

Delivery of water from the Project is expected to begin in 2020. In 2015, the City Council approved a series of increases to the water supply fee through 2020 to support the acquisition of new water supplies, including water supplied from this project.

CONSERVATION

The cost of developing and acquiring additional water supplies to meet the increased water demands of San Antonio's projected future population is high. SAWS recognizes that efforts to promote conservation are a cost-efficient approach to minimizing the increase in demand for water caused by population growth. Beginning in 1994, SAWS implemented progressive water conservation programs aimed at reducing the number of gallons of water used. These programs target both indoor and outdoor residential, commercial and industrial uses. SAWS' conservation efforts over time have had a dramatic impact on water usage per customer and helped to avoid the need to develop even more water supplies to support the city's population growth over the last 20 years. Continued reductions in customer demand as a result of these programs is an important component of SAWS water planning efforts The 2017 Water Management Plan assumes that conservation efforts will reduce customer demand from 117 gallons per capital per day (GPCD) to 88 GPCD by 2070.

INTEGRATION

Western Pipeline

The Western Pipeline was designed to provide the ability to integrate water produced from the various sources at the H_2Oaks Center and delivering that water to western Bexar County. Phase I of the pipeline was completed in 2016 and includes 28 miles of large capacity water transmission pipeline and new pump stations at the H_2Oaks s facility and the Old Pearsall Pump Station. Phase II extends the pipeline 17 miles to Anderson Pump Station at Hwy 151 and Loop 1604. This project is planned to be operational by 2020. With the addition of the Anderson Pump Station facility as a water integration point, the rated capacity of both phases of the pipeline will be up to 75 MGD.

Central Water Integration Pipeline

The Vista Ridge project will introduce approximately 45 MGD of water to the SAWS system through a single entry point. The biggest integration challenge SAWS faces in the early years of this project will be distributing this

constant rate water supply during times of low customer demand. This typically occurs in the cooler winter months when demand is lower.

During cold and/or wet periods during the early years of the project, the Vista Ridge water will make up approximately one-third of the total water demand of the system. This water must be conveyed to locations in the distribution system where it can be effectively consumed. This will require a number of integration improvements including modifications to existing infrastructure as well as the construction of new pipelines, control valves, tanks and pumps

The completion of the Central Water Integration Pipeline comes with a number of benefits to customers. The former BexarMet service areas of north central San Antonio will see improved water service reliability. Water distribution operators will have greater flexibility to feed multiple pressure zones across San Antonio and to provide water to as far south as Calaveras Lake. The integration of Vista Ridge water allows SAWS to eliminate an outdated former BexarMet facility in need of major renovations, saving customers over $9 million.

FINANCIAL POLICIES

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FINANCIAL POLICIES

BASIS OF ACCOUNTING

SAWS' financial statements are prepared using the accrual basis of accounting with the economic resources measurement focus as prescribed by the Governmental Accounting Standards Board (GASB). SAWS operates as a enterprise fund and applies all applicable GASB pronouncements and presents its financial statements in accordance with the GASB Codification of Governmental Accounting and Financial Reporting Standards. Under this approach, all assets, deferred outflow of resources, liabilities and deferred inflows of resources of SAWS are reported in the statement of net position, revenues are recorded when earned and expenses are recorded at the time liabilities are incurred.

RECOGNITION OF REVENUES

Revenues are recognized as goods or services are provided. Customers' water meters are read and bills are prepared monthly based on billing cycles. SAWS uses historical information to estimate and record earned revenue not yet billed.

REVENUE AND EXPENSE CLASSIFICATION

Enterprise funds distinguish operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services in connection with an enterprise fund's principal ongoing operations. The principal operating revenues of SAWS are charges to customers for water supply, water delivery, wastewater, and chilled water services. Operating expenses include costs of service, administrative expenses and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

ANNUAL BUDGET

Approximately sixty days prior to the beginning of each fiscal year, SAWS presents an annual budget prepared on an accrual basis to serve as a tool in controlling and administering the management and operation of the organization. The annual budget reflects an estimate of gross revenues and disposition of these revenues in accordance with the flow of funds required by Ordinance No. 75686. The annual budget is submitted to the City Council for review and consultation.

The annual budget should be a balanced budget that projects Gross Revenues sufficient to fund estimated financial requirements. The annual budget is prepared on a comprehensive basis and includes all water supply, water delivery, wastewater and chilled water operations as well as a capital improvement program. The Board of Trustees may subsequently modify its approved budget by giving notice thereof to the City.

The basis of budgeting used is the same as the basis of accounting, with the exception of budgeting for employee benefits and capital asset impairments. Contributions to employee retirement plans, both pension and post-retirement medical, are budgeted on a cash basis, rather that accrual basis. Periodically SAWS reviews its capital assets for possible impairment. Unfunded employee benefit expenses and capital assets write-offs do not meet the definition of Operations and Maintenance Expense in accordance with Ordinance No. 76586, as they do not require an outlay of cash.

Encumbrances are not formally recorded in the accounting system, however, SAWS monitors and controls spending by utilizing budget variance reports for each accounting unit, which are periodically reviewed by the CFO and the Executive Management Team.

All funds are appropriated in the 2018 annual operating budget. Capital Improvement Program financial projections are not appropriated. Any amendments to the annual operating budget which are expected to reduce the annual unrestricted transfer to the Renewal and Replacement Fund must be approved by the Board of Trustees.

CORE BUSINESSES

SAWS' operations are segregated into four core businesses as follows:

- Water Delivery – the functions of distributing water to the customer
- Water Supply – the functions related to the development and provision of additional water resources
- Wastewater – the functions of collecting and treating wastewater from the user customer
- Chilled Water – the functions related to providing chilled water service to specific customers of SAWS

RESTRICTED RESOURCES

When an expenditure is made for purposes for which both restricted and unrestricted resources are available, it is SAWS policy to choose the appropriate resource based on the availability of resources and funding goals established by management for those expenditures.

CASH EQUIVALENTS

SAWS considers investments with an original maturity of three months or less at the time of purchase to be cash equivalents.

INVESTMENTS

City Ordinance No. 75686, SAWS' Investment Policy, and Texas state law allow SAWS to invest in direct obligations of the United States or its agencies and instrumentalities. Other allowable investments include direct obligations of the State of Texas or its agencies and instrumentalities; secured certificates of deposit issued by depository institutions that have their main office or a branch office in the State of Texas; defined bankers acceptances and commercial paper; collateralized direct repurchase agreements, reverse repurchase agreements; no-load money market mutual funds; investment pools; municipal bonds; and other types of secured or guaranteed investments. These investments are subject to market risk, interest rate risk, and credit risk which may affect the value at which these investments are recorded. Under the provisions of GASB Statement No. 31, money market investments, including US Treasury and agency obligations, with a remaining maturity at time of purchase of one year or less are reported at amortized cost. All other investments are reported at fair value.

ACCOUNTS RECEIVABLE

Accounts receivable are recorded at the invoiced amounts plus an estimate of unbilled revenue receivable. The allowance for uncollectible accounts is management's best estimate of the amount of probable credit losses based on account delinquencies and historical write-off experience. Account balances are written off against the allowance when it is probable the receivable will not be recovered. A provision to increase the allowance for uncollectible accounts is recorded as an offset to operating revenue.

INVENTORY

Inventories are valued at the lower of weighted average cost or market. Inventories are reported in the Statements of Net Position in Other Current Assets.

RESTRICTED ASSETS

Assets restricted by City Ordinance (which incorporates the bond indentures) to pay current liabilities are reported as current assets in the Statement of Net Position, regardless of their relative liquidity. Assets restricted for the acquisition of capital assets or to pay noncurrent liabilities are reported as noncurrent assets in the Statement of Net Position.

CAPITAL ASSETS

Assets in service are capitalized when the unit cost is greater than or equal to $5,000. Utility plant additions are recorded at cost, which includes materials, labor, direct internal costs, and interest capitalized during construction. Included in capital assets are intangible assets, which consist of purchased water rights and land easements, costs associated with acquiring additional Certificates of Convenience and Necessity (CCN) related to new service areas and development costs for internally generated computer software. Assets acquired through capital leases are recorded on the cost basis and included in utility plant in service. Assets acquired through contributions, such as those from developers, are recorded at estimated acquisition value at date of donation. Maintenance, repairs, and minor renewals are charged to operating expense; major plant replacements are capitalized. Capital assets are depreciated on the straight-line method. This method is applied to all individual assets except distribution mains and intangible assets. Groups of mains are depreciated on the straight-line method over an estimated average useful life of 50 years. Mains are included in the Distribution and Transmission System asset category. Intangible assets not considered to have indefinite useful lives are amortized over their estimated useful life. Capital assets are tested for impairment when a significant unexpected decline in its service utility occurs.

CAPITALIZED INTEREST

Interest expense during the construction period is capitalized as part of the cost of capital assets.

CAPITAL CONTRIBUTIONS

Capital Contributions consist of plant contributions from developers, capital recovery fees, and grant proceeds received from governmental agencies for facility expansion. Capital Contributions are recognized in the Statement of Revenues, Expenses, and Changes in Net Position, after non-operating revenues (expenses), when eligibility requirements are met.

Capital recovery fees are charged to customers to connect to the water or wastewater system. By Texas law, these fees are to be used for capital expenditures that expand infrastructure capacity or to reimburse SAWS for the cost associated with existing excess infrastructure capacity. In certain instances, infrastructure that facilitates expansion of SAWS' service capacity is contributed by developers. In these instances, SAWS records the donated infrastructure as plant contributions and abates future capital recovery fees due from the developer equal to the acquisition value of the excess capacity of the infrastructure contributed. These abatements are conditional based on the type of development and in certain instances, time requirements and geographic restrictions.

COMPENSATED ABSENCES

It is SAWS' policy to accrue earned but unused employee vacation pay as well as the employer portion of Social Security taxes and required pension contributions related to the accrued vacation pay. Sick leave is not accrued as a terminating employee is not paid for accumulated sick leave.

SELF-INSURANCE

SAWS is self-insured for a portion of workers' compensation, employee's health, employer's liability, public officials' liability, property damage, and certain elements of general liability. A liability is recorded for the estimated amount of eventual loss which will be incurred on claims arising prior to the end of the period including incurred but not reported claims.

Rates and Charges

In accordance with City of San Antonio, Texas Ordinance No. 75686 requirements, SAWS must establish and maintain rates and charges to produce sufficient Gross Revenues in each fiscal year to:

1. Pay Operations and Maintenance Expenses;
2. Produce Pledged Revenues sufficient to pay:
    a. 1.25 times the senior lien annual debt service requirements and
    b. The amounts required to be deposited in any reserve fund created for the payment and security of senior lien obligations;
3. Pay outstanding debt service obligations;
4. Fund payments to the City of San Antonio; and
5. Pay any other debt payable from the net revenues.

Funds Flow

City Ordinance No. 75686 adopted April 30, 1992 requires that Gross Revenues of the System be applied in sequence to:

1. Pay Operations and Maintenance Expenses, including a two-month operating reserve
2. Deposit into Debt Service fund the amount required for:
    a. Senior Lien debt obligations and Reserve Fund obligations
    b. Junior Lien debt obligations
    c. Subordinate Lien debt obligations
    d. Inferior Lien debt obligations
3. Equal payments to the City of San Antonio's General Fund and to SAWS Renewal and Replacement Fund

Payments to the City of San Antonio General Fund

City Ordinance No. 75686 requires SAWS to make payments to the City each month after making all other payments required by the City Ordinance. The amount of the payment is determined by City Council from time to time and cannot exceed 5%. Currently SAWS pays 2.7% of Gross Revenues to the City. Payments to the City are reported as non-operating expense in the Statement of Revenues, Expenses and Changes in Net Position.

Fund Structure

Within SAWS' enterprise fund accounts, separate self-balancing sub-funds are maintained to account for resources for various purposes, thereby distinguishing balances restricted by City Ordinance or other enabling legislation from unrestricted resources.

System Fund

All Gross Revenues shall be credited to this fund upon receipt, unless otherwise provided in City Ordinance No. 75686. All current expenses of maintenance and operations shall be paid from this fund as a first charge against the gross revenues so credited. Before making any deposits to other funds required to be made from the System Fund, the Board of Trustees shall retain in the System Fund at all times an amount at least equal to two months of the amount budgeted for the current fiscal year for current maintenance and operation expenses.

Debt Service Fund

The sole purpose of this fund is for the payment of principal and interest on all bonds which are payable from pledged revenues.

Reserve Fund

This fund shall be used to pay the principal and interest on any bonds when and to the extent the amounts in the Debt Service Fund are insufficient for such purpose, and may be used for the purpose of finally retiring the last of any bonds.

PROJECT FUND

This fund shall be used to account for the proceeds of debt obligations and investment earnings thereon. Funds may only be used to pay for capital improvements in accordance with bond agreements and Internal Revenue Service regulations related to tax-exempt borrowings.

RENEWAL AND REPLACEMENT FUND

This fund shall be used for the purpose of

1. Paying the costs of improvements, enlargements, extensions, additions, replacements, or other capital expenditures, or
2. Paying the costs of unexpected extraordinary repairs or replacements for which System Funds are not available
3. Paying unexpected or extraordinary expenses of maintenance and operations for which System Funds are not otherwise available
4. Depositing any funds received by SAWS pursuant to the CPS Energy contract
5. Paying bonds or other SAWS' obligations for which other System revenues are not available
6. Making up any shortfall in the Payment to the City of San Antonio General Fund as required by Section 17 of Ordinance 75686 and
7. For any other lawful purpose.

DEBT MANAGEMENT

CAPITAL PLANNING

A five-year Capital Improvement Program is developed and updated annually, including anticipated funding sources. During the annual budgeting process, the current year's proposed capital improvement projects are reviewed and prioritized to ensure consistency with SAWS' goals and objectives.

CAPITAL FINANCING

Capital financing will typically include two types of funding – pay-as-you-go and debt financing.

1. Pay-as-you-go financing is an integral part of the overall capital-financing plan. Pay-as-you-go financing is defined as all sources of funding other than debt issuance and includes unrestricted resources, capital recovery/impact fees, investment earnings and certain grant proceeds.
2. The use of debt financing will be based, in part, on SAWS' long-term needs and the amount of funds available for pay as you go financing. The following criteria will be used to evaluate pay-as-you-go versus debt financing:
    - Factors which favor pay-as-you-go financing:
        - Current revenues and adequate liquidity are available
        - Debt levels would adversely affect SAWS' credit rating or market conditions are unstable or present difficulties in marketing debt.
    - Factors which favor debt financing include:
        - Revenues available for debt service are considered sufficient and reliable so that debt financing can be marketed with the appropriate credit rating
        - Market conditions present favorable interest rates and demand for municipal financings
        - Federal or state subsidized debt is available to finance specific capital improvements and current revenues and liquidity are insufficient to pay the cost of those improvements

DEBT LIMIT

There is no statutory debt limitation on the issuance of revenue indebtedness by the San Antonio Water System, acting on behalf of the City of San Antonio, Texas. SAWS has established its own policies regarding the utilization of debt instruments.

The currently outstanding bond ordinances impose conditions precedent on the issuance of additional revenue bonds and require Net Revenues of 125% of maximum annual debt service in order to issue senior lien revenue bonds and 100% of average annual debt service in order to issue junior lien revenue bonds in a public offering.

DEBT POLICY

- Debt financing should only be used to fund capital improvements and should not be used for operating purposes.
- SAWS shall maintain rates and charges sufficient to ensure that Net Revenues equal or exceed 1.25 times the Annual Debt Service Requirements for the current fiscal year on SAWS' outstanding Senior Lien Obligations as required by the bond indenture. Historically, SAWS target was to maintain Net Revenues equal to at least 2.00 times Annual Senior Lien Debt Service and 1.70 to 1.75 times Total Annual Debt Service to ensure the required debt coverage in times of revenue fluctuations.
- SAWS shall analyze each new debt issue to ensure compliance with SAWS' debt policies and determine the impact of the new debt issue on SAWS' overall debt capacity.
- SAWS shall move toward a goal of funding approximately 50% of capital expenditures with non-debt sources.
- SAWS may maintain a variable rate component of debt of no more than 30% of its outstanding debt.
- SAWS shall employ an interest rate mitigation strategy to mitigate interest rate risk associated with variable rate debt.
- SAWS seeks to maintain or improve its current credit rating to ensure continued access to capital markets and minimize borrowing cost.
- The term of debt issued should not exceed the expected useful life of the capital improvements being financed.

RESERVE POLICIES

- As required by ordinance, an operating reserve shall be maintained in the SAWS System Fund consisting of a two-month reserve of the current year's budgeted maintenance and operation expenses.
- SAWS' target is to maintain unrestricted Days Cash on Hand of approximately 300 days.
- The Debt Service Fund will be funded with revenues sufficient to pay the principal and interest of SAWS' bonded debt as it becomes payable.
- Deposits shall be made to the Renewal and Replacement Fund in amounts equal to the amount payable to the City of San Antonio pursuant to the bond indenture. These funds will typically be used to fund capital improvements.
- Deposits shall be made to the Reserve Fund pursuant to SAWS bond indentures. These deposits will be made with proceeds from bonds issued or with unrestricted resources. SAWS may provide surety policies in amounts equal to all or part of the required reserve amount in lieu of depositing cash into the Reserve Fund.

Financial Planning Process

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FINANCIAL PLANNING PROCESS

LONG RANGE FINANCIAL PLANNING

Long-range financial planning is critical for SAWS to accomplish its mission. The overriding goal of financial planning, analysis, and strategy development is to improve SAWS financial position in order to meet its short-term and long-term operational and strategic objectives. In developing the SAWS financial plan, concerns of all stakeholders are considered with various scenarios and potential risks evaluated by executive management in reaching the optimum balance of limited resources with organizational needs and stakeholder concerns.

The financial plan is organized into two distinct planning horizons in order to facilitate management of the system: Short-term of five years in length, and long-term of five to twenty years in length. The planning horizons play a key role in prioritizing SAWS' strategic, operational, and financial needs and resources.

The short-term planning horizon is the basis for implementing, through the formalized budget, short-term goals and objectives in support of the strategic plan. The long-term planning process sets the course of the overall direction of financial, operational, and capital resource allocation priorities of the system.

Major strategic policy guidelines emphasized are long-term water supply needs and infrastructure replacement goals. Strategic priorities include, but are not limited to, water supply, system expansion, environmental sustainability, system reliability and service consistency, innovation and technology, financial strength, and human resource development. All priorities are planned through operational, capital, and financial resource assessment and allocation.

A crucial component of SAWS' financial management strategy is the comprehensive 20-year Multi-Year Financial Plan (MYFP). The MYFP serves as a foundation supporting SAWS' strategic, operational, investment, and financial planning functions. Through analyses of cash flow probabilities and risk, investment and financing opportunities and constraints, and strategic plan goals and targets, financial forecasts are made in the MYFP to assist executive management in the allocation of SAWS' resources.

The MYFP provides a critical planning platform to perform statistical risk and resource allocation analyses through scenario, simulation and constraint modeling on revenues, operations and maintenance expense, capital expenditures, capital financing, including cash and debt financing and rate requirements. Resource utilization analyses and planning help identify factors affecting SAWS' strategic outcomes and provide opportunities for new strategies and program development to allocate resource costs for various growth and replacement scenarios.

The fundamental structure of the MYFP is the calculation of the flow of funds and rate adjustment requirements based on SAWS enabling Ordinance 75686, adopted on April 30, 1992. This ordinance outlines important financial requirements and calculations that SAWS uses in the MYFP to calculate rates and charges, flow of funds, pledged revenues toward debt service, debt coverage ratios and fund requirements. The MYFP incorporates forecasts and requirements by each of SAWS' core businesses: Water Supply, Water Delivery, Wastewater, and Chilled Water.

ANNUAL BUDGET PROCESS

The annual budget process begins with updating the MYFP. As part of this process, Business Planning staff review SAWS' financial activity, levels of service provided, customer growth and consumption patterns, weather trends and financial market trends. In addition, the following variables are also evaluated:

- Available funding
- Financial risk
- Regulatory requirements
- Level of services that can be sustained
- Capital investment requirements
- Future commitments and resource demands
- Other variables that could cause a change in the level of revenue

Business Planning staff and executive management review the resulting financial forecasts and plans to ensure that forecasted revenues are sufficient to meet projected financial needs. If it becomes evident that forecasted revenues are not sufficient to address forecasted operations, maintenance, infrastructure and water supply needs, then staff evaluates rate scenarios to calculate the optimum rate adjustment that will balance affordable and competitive rates with the need to continue providing necessary services.

All potential pricing adjustments are evaluated in the context of customer affordability measures and key financial statistics. The affordability of customer bills is evaluated relative to the income of SAWS' customers and price competitiveness with other utilities. Key financial statistics include: debt coverage ratios for total debt, percentage of capital financed with cash, and overall level of cash balances.

2018 BUDGET PROCESS

The 2018 budget process began with identifying SAWS' short-term priorities. The focus of the 2018-2022 financial forecast included the following objectives:

- Employee pay and benefits are fair and competitive
- Retirement obligations are valued appropriately and adequately funded
- Infrastructure is adequately maintained to ensure reliability of service and compliance with regulatory requirements
- Technology advancements are implemented in order to increase productivity and enhance customer interactions
- Strong financial metrics and debt ratings are maintained

REVENUE FORECAST

One of the key elements of the financial planning process is the assessment of risk and impact of errors in forecasted revenues. Errors in the revenue forecast will cause inefficiencies to the system. The value of these inefficiencies will be evident once management has to take corrective action due to the forecast error. Overestimating revenues causes excess allocation of capital resources. Adjusting these resources or changing to alternative resources can be time intensive and costly. On the other hand, underestimating revenues results in underutilization of resources in the current period. However, these resources can be put to use in subsequent planning periods. The risk to the system from overestimating revenues are assumed to be of greater significance than the risk to the system from underestimating revenues. As a result, SAWS' revenue forecast is generally conservative in nature. The table below includes a sample of the issues driving the 2018 revenue forecast.

Revenue Source	Drivers
Operating Revenues	Mitigate impacts of sustained periods of above normal rainfall
	Effect of conservation programs and tiered water rates on customer usage
Non-operating Revenues	Gradual improvement in short-term interest rates
Capital Recovery Fees	Utilized for capital funding - dependent upon development activity

Operations and Maintenance Budget

Current Services Level

The 2018 budget process involved a calculation of the Current Services Level budget, which was an estimate of the cost required to maintain the current level of services in 2018. The Current Services Level budget served as the baseline for all subsequent 2018 budget changes and was developed from the following components:

- Current employee wage and benefit costs
- Estimated 2018 utility costs including provision for any electric and gas utility rate increases
- Estimated 2018 fuel costs
- Elimination of one-time 2017 budgeted expenses

Improvements and/or Mandates

Departments requiring additional funding for improvements or newly identified mandates that exceeded the 2018 Current Services Level were required to submit decision packages to include detailed justification for each specific request.

Budget Development and Review

- Vice presidents/department directors reviewed current programs, activities and current levels of service provided to their customers. Additionally, they evaluated and prioritized new departmental needs.
- During individual departmental reviews, current spending levels were compared to current and proposed budget spending levels, with appropriate adjustments being made.
- The Executive Management Team (EMT) conducted a comprehensive review of decision packages submitted. During this review, all requests for additional funding were prioritized and were approved or denied based on this prioritization. This review by the EMT further ensured that departmental budgets were aligned with corporate goals and objectives.
- Several review sessions were held with the City of San Antonio Public Utilities office to discuss the O&M budget inputs and assumptions.

Capital Improvement Program

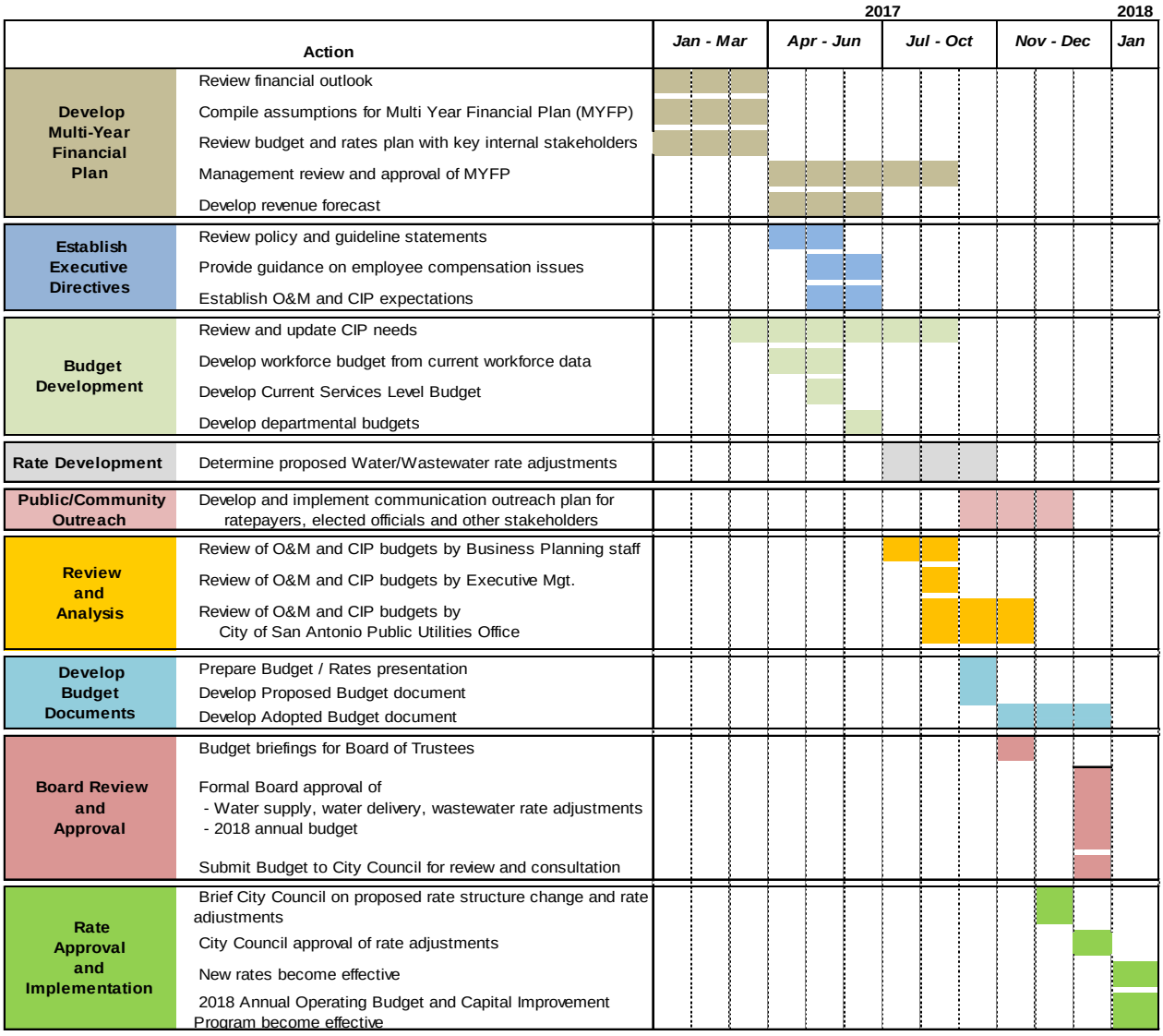
The 2018 CIP was developed using a project prioritization process. Projects generated by the CIP stakeholder groups from SAWS' Treatment, Production, Master Planning, Facilities Engineering, Operations, and Distribution and Collection departments were reviewed and evaluated by a CIP Planning Group consisting of submitting vice presidents, directors and managers from SAWS Engineering and Operations groups. The evaluation and prioritization process addressed the business risk exposure, independent of available funds, by prioritizing the projects as either Mandatory, Critical, or High priority.

Mandatory	Critical	High
• Loss of life or limb	• Risk of Injury	• Corporate initiatives
• Legal/Regulatory requirements	• Legal/Regulatory implications	• City or State conflicts
• High Customer dissatisfaction	• Customer dissatisfaction	• Customer dissatisfaction
• Significant mission disruption	• Mission delay	• Needed system improvements

Projects were totaled by dollar amount and compared to the long term funding strategy. The CIP projects were developed using recent cost estimates; SAWS overhead and an inflation factor of 2.8% per year were added to develop the programmed costs for 2018 and future years. The 2018 and 5-year CIP project lists were reviewed in detail, final selection was made by SAWS' Executive Management Team and approved by SAWS' Board of Trustees.

The 2018 CIP projects were collected, reviewed, and summarized in SAWS Capital Project Management System (CPMS), which was brought online in mid-2015. This system streamlines the CIP into an enterprise project management system that increases the efficiency and visibility of the program.

2018 Budget Timeline



SHORT-TERM FIVE YEAR FORECAST

The current projection of SAWS sources and uses of funds for the period 2018 – 2022 is shown in the table below.

$ in Millions	2018 Budget	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Sources of Funds					
Revenue, incl. prior adjustments	$ 658.9	$ 699.8	$ 730.0	$ 831.2	$ 893.4
Rate Adjustment, incremental	36.3	27.2	96.2	56.8	26.6
Nonoperating Revenues	11.3	13.2	13.1	13.0	12.9
Draw on Equity	1.4	1.4	-	-	-
Capital Recovery Fees	72.9	65.6	65.6	65.6	65.6
Total Sources of Funds	**$ 780.8**	**$ 807.2**	**$ 904.9**	**$ 966.6**	**$ 998.5**
Uses of Funds					
Operations and Maintenance	$ 339.9	$ 347.5	$ 433.7	$ 468.2	$ 476.1
Debt Service & Expenses	236.2	253.1	261.8	281.2	293.7
Transfer to City of San Antonio	18.1	19.0	21.7	23.3	24.2
Available for R&R Restricted	75.3	81.4	72.7	68.3	67.4
Available for R&R Unrestricted	111.3	106.2	115.0	125.6	137.1
Total Uses of Funds	**$ 780.8**	**$ 807.2**	**$ 904.9**	**$ 966.6**	**$ 998.5**

The forecasted amounts for 2019-2022 will continue to be analyzed and adjusted as additional efficiencies are identified, circumstances change, or priorities shift.

The sources of funds primarily include revenues from metered customers, with anticipated adjustments to the metered revenues required to fund the projected operational and capital needs of the system. A discussion of the drivers of the revenues, growth in customers, and changes in use per customer are discussed in the revenue section of this book.

Projected increases in operations and maintenance costs over the forecast period are driven by inflationary pressures as well as operating costs associated with the acquisition of new water supplies. SAWS will begin receiving water from the Vista Ridge project in early to mid-2020, contributing to the increases in operations and maintenance expenses in 2020 and 2021.

The growth in debt service reflects the allocation of capital resources toward major strategic priorities of water resources, infrastructure replacement, system growth, and sustainability. The five year 2018 – 2022 capital improvement program is projected at $2.0 billion as shown below. A significant priority includes wastewater capital replacement projects associated with the wastewater Sanitary Sewer Overflow Reduction Program (SSORP).

CIP *($ in Millions)*	2018	2019	2020	2021	2022	Total
Water Supply	$ 44.7	$ 63.9	$ 31.0	$ 11.5	$ 10.2	$ 161.3
Water Delivery	159.2	141.7	130.9	134.5	153.5	719.7
Wastewater	187.6	211.9	217.6	302.0	209.9	1,128.9
Chilled Water	-	-	-	-	-	-
Total	***$ 391.4***	***$ 417.5***	***$ 379.5***	***$ 447.9***	***$ 373.5***	***$ 2,009.9***

Funding for the five year capital improvement program is projected to come from a mixture of renewal and replacement, impact fees, investment income, and bond funds. While SAWS long term goal is for approximately 50% of capital improvements to be funded from non-debt sources, during the 2018-2022 five year forecast, the percentage of the capital improvements funded with non-debt sources is currently projected to average 42%.

Capital Improvement Program					
	2018	**2019**	**2020**	**2021**	**2022**
CIP Budget $M	$ 391.4	$ 417.5	$ 379.5	$ 447.9	$ 373.5
Capital Improvement Program Funding					
	2018	**2019**	**2020**	**2021**	**2022**
Revenue/Renewal & Replacement	22.4%	29.2%	38.7%	33.3%	36.9%
Capital Recovery Fees	8.9%	12.7%	19.8%	5.6%	8.0%
Bond Capacity	0.0%	0.0%	0.0%	0.0%	0.0%
Bonds/Commercial Paper	68.7%	58.2%	41.6%	61.1%	55.1%
Total	100.0%	100.1%	100.1%	100.0%	100.0%
Cash Funding $M	$ 122.5	$ 174.5	$ 221.8	$ 174.3	$ 157.6
Debt Funding $M	$ 268.9	$ 243.0	$ 157.7	$ 273.6	$ 215.9

Annual Operating Budget

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ANNUAL OPERATING BUDGET

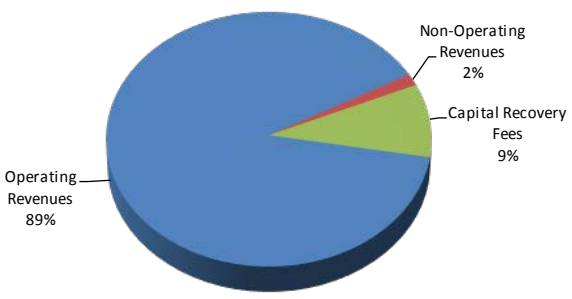
FINANCIAL PLAN SUMMARY

The following table summarizes the consolidated Sources and Uses of Funds that comprise the SAWS Annual Operating Budget.

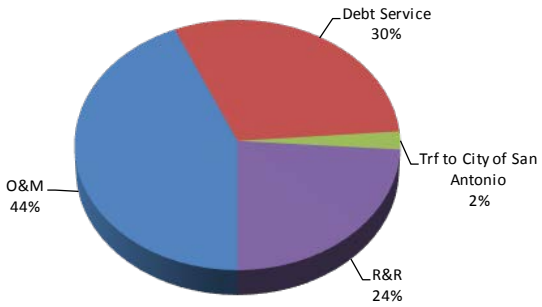
(dollars in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
SOURCES OF FUNDS				
Operating Revenues				
Sewer Service Charges	$ 208,912	$ 229,445	$ 238,496	$ 249,969
Metered Water Sales	173,096	195,887	202,690	225,247
Water Supply Fee	120,150	133,421	150,862	161,513
EAA Fee	19,545	25,513	24,059	24,023
Chilled Water Sales	11,102	11,541	10,236	10,327
Conservation	9,152	10,579	10,525	11,049
Industrial Waste Surcharge	5,401	6,292	6,026	6,114
Stormwater	4,797	4,967	4,592	5,204
Recycled Water System	5,046	5,657	5,548	5,496
Recovery of TCEQ Fees	1,840	1,908	2,235	1,957
Reduction for Affordability Program	(2,007)	(2,753)	(3,548)	(5,681)
Total Operating Revenues	557,034	622,457	651,721	695,218
Nonoperating Revenues	2,486	4,492	4,450	7,826
Build America Bonds Subsidy	3,690	3,653	3,585	3,524
Total Revenues	563,210	630,602	659,756	706,568
Capital Recovery Fees	64,056	67,991	56,103	72,877
Grant Revenue		3,866		
Draw on Equity	1,400	1,400	4,850	1,400
Total Sources of Funds	**$ 628,666**	**$ 703,859**	**$ 720,709**	**$ 780,845**

(dollars in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
USES OF FUNDS				
Operations and Maintenance	$ 296,518	$ 315,238	$ 324,860	$ 339,852
Revenue Bond Debt Requirement	188,388	190,537	219,048	230,830
Other Debt Service Requirement	2,001	2,892	5,005	5,405
Transfer to the City of San Antonio	12,683	14,229	16,847	18,103
Balance Available for:				
Renewal and Replacement Fund (Restricted)	65,614	72,482	57,912	75,279
Renewal and Replacement Fund (Unrestricted)	63,462	108,481	97,037	111,376
Total Uses of Funds	**$ 628,666**	**$ 703,859**	**$ 720,709**	**$ 780,845**

SOURCES OF FUNDS
$780.8 MILLION



USES OF FUNDS
$780.8 MILLION



FINANCIAL PLAN SUMMARY BY CORE BUSINESS

The San Antonio Water System consists of four core businesses, which are essentially four separate utilities. Each core business generates revenues that are designed to recover their respective cost of service. The core businesses are Water Supply, Water Delivery, Wastewater, and Chilled Water.

The following schedule reflects the 2018 budget for Sources and Uses of Funds by core business:

(dollars in thousands)	Water Supply	Water Delivery	Wastewater	Chilled Water	Total
SOURCES OF FUNDS					
Operating Revenues					
Sewer Service Charges	$ -	$ -	$ 249,969	$ -	$ 249,969
Metered Water Sales		225,247			225,247
Water Supply Fee	161,513				161,513
EAA Fee	24,023				24,023
Chilled Water Sales				10,327	10,327
Conservation	11,049				11,049
Industrial Waste Surcharge			6,114		6,114
Stormwater	5,204				5,204
Recycled Water System	5,496				5,496
Recovery of TCEQ Fees		1,497	460		1,957
Reduction for Affordability Program	(1,289)	(1,289)	(3,103)		(5,681)
Intercompany Reallocations	5,630	(5,630)			-
Total Operating Revenues	211,626	219,825	253,440	10,327	695,218
Nonoperating Revenues	2,348	2,348	3,130	-	7,826
Build America Bonds Subsidy	924	1,079	1,521	-	3,524
Total Revenues	214,898	223,252	258,091	10,327	706,568
Capital Recovery Fees	27,463	20,596	24,818	-	72,877
Draw on Equity	1,400	-	-	-	1,400
Total Sources of Funds	**$ 243,761**	**$ 243,848**	**$ 282,909**	**$ 10,327**	**$ 780,845**
USES OF FUNDS					
Operations and Maintenance	$ 134,546	$ 89,351	$ 109,326	$ 6,629	$ 339,852
Revenue Bond Debt Requirement	54,125	79,018	94,763	2,924	230,830
Other Debt Service Requirement	1,094	1,797	2,395	119	5,405
Transfer to the City of San Antonio	4,897	5,988	6,939	279	18,103
Balance Available for:					
Renewal and Replacement Fund (Restricted)	27,893	21,664	25,704	18	75,279
Renewal and Replacement Fund (Unrestricted)	21,206	46,030	43,782	358	111,376
Total Uses of Funds	**$ 243,761**	**$ 243,848**	**$ 282,909**	**$ 10,327**	**$ 780,845**

WATER SUPPLY CORE BUSINESS

The Water Supply core business is responsible for all functions related to the development and provision of additional water resources, including recycled water. In order to support the cost associated with these initiatives, SAWS implemented the Water Supply Fee in 2001, which is a separate funding mechanism for water supply development and water quality protection. The Water Supply core business also strives to extend SAWS' existing water supplies by promoting water conservation practices.

(dollars in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
SOURCES OF FUNDS				
Operating Revenues				
Water Supply Fee	$ 120,150	$ 133,421	$ 150,862	$ 161,513
Conservation	9,152	10,579	10,525	11,049
EAA Fee	19,545	25,513	24,059	24,023
Recycled Water System	5,046	5,657	5,548	5,496
Stormwater	4,797	4,967	4,592	5,204
Reduction for Affordability Program	(550)	(729)	(789)	(1,289)
Intercompany Reallocations	5,630	5,630	5,630	5,630
Total Operating Revenues	163,770	185,038	200,427	211,626
Nonoperating Revenues	917	1,537	1,451	2,348
Build America Bonds Subsidy	968	956	940	924
Total Revenues	165,655	187,531	202,818	214,898
Capital Recovery Fees	14,685	24,719	18,669	27,463
Draw on Equity	1,400	1,400	2,000	1,400
Total Sources of Funds	**$ 181,740**	**$ 213,650**	**$ 223,487**	**$ 243,761**
USES OF FUNDS				
Operations and Maintenance	$ 105,364	$ 112,038	$ 127,680	$ 134,546
Revenue Bond Debt Requirement	49,868	50,570	53,852	54,125
Other Debt Service Requirement	958	628	1,000	1,094
Transfer to the City of San Antonio	3,225	3,592	4,587	4,897
Balance Available for:				
Renewal and Replacement Fund (Restricted)	16,112	24,828	19,261	27,893
Renewal and Replacement Fund (Unrestricted)	6,213	21,994	17,107	21,206
Total Uses of Funds	**$ 181,740**	**$ 213,650**	**$ 223,487**	**$ 243,761**

WATER DELIVERY CORE BUSINESS

The Water Delivery core business is responsible for the actual distribution of water from the source to the customers' premises. SAWS delivers potable water service to residential, commercial, multifamily, industrial and wholesale customers. Another primary function of this core business is the maintenance of the water system infrastructure.

(dollars in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
SOURCES OF FUNDS				
Operating Revenues				
Metered Water Sales	$ 173,096	$ 195,887	$ 202,690	$ 225,247
Recovery of TCEQ Fees	1,411	1,460	1,779	1,497
Reduction for Affordability Program	(548)	(804)	(854)	(1,289)
Intercompany Reallocations	(5,630)	(5,630)	(5,630)	(5,630)
Total Operating Revenues	168,329	190,913	197,985	219,825
Nonoperating Revenues	638	1,290	1,335	2,348
Build America Bonds Subsidy	1,130	1,119	1,098	1,079
Total Revenues	170,097	193,322	200,418	223,252
Capital Recovery Fees	24,852	19,893	16,374	20,596
Grant Revenue		3,866		-
Draw on Equity	$0	-	1,350	-
Total Sources of Funds	**$ 194,949**	**$ 217,081**	**$ 218,142**	**$ 243,848**
USES OF FUNDS				
Operations and Maintenance	$ 79,892	$ 84,377	$ 84,683	$ 89,351
Revenue Bond Debt Requirement	63,507	62,677	73,369	79,018
Other Debt Service Requirement	644	1,698	1,874	1,797
Transfer to the City of San Antonio	3,363	3,943	5,379	5,988
Balance Available for:				
Renewal and Replacement Fund (Restricted)	24,770	23,904	16,750	21,664
Renewal and Replacement Fund (Unrestricted)	22,773	40,482	36,087	46,030
Total Uses of Funds	**$ 194,949**	**$ 217,081**	**$ 218,142**	**$ 243,848**

WASTEWATER CORE BUSINESS

The Wastewater core business's primary function is the collection and treatment of wastewater. The functions also extend to monitoring wastewater discharged by large industries into the sewer collection system.

(dollars in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
SOURCES OF FUNDS				
Operating Revenues				
Sewer Service Charges	$ 208,912	$ 229,445	$ 238,496	$ 249,969
Industrial Waste Surcharge	5,401	6,292	6,026	6,114
Recovery of TCEQ Fees	429	448	456	460
Reduction for Affordability Program	(909)	(1,220)	(1,905)	(3,103)
Total Operating Revenues	213,833	234,965	243,073	253,440
Nonoperating Revenues	794	1,498	1,664	3,130
Build America Bonds Subsidy	1,592	1,578	1,547	1,521
Total Revenues	216,219	238,041	246,284	258,091
Capital Recovery Fees	24,519	23,379	21,060	24,818
Draw on Equity	-	-	1,500	-
Total Sources of Funds	**$ 240,738**	**$ 261,420**	**$ 268,844**	**$ 282,909**
USES OF FUNDS				
Operations and Maintenance	$ 103,925	$ 111,332	$ 105,548	$ 109,326
Revenue Bond Debt Requirement	72,501	74,750	89,217	94,763
Other Debt Service Requirement	212	505	1,999	2,395
Transfer to the City of San Antonio	5,792	6,378	6,605	6,939
Balance Available for:				
Renewal and Replacement Fund (Restricted)	25,358	23,746	21,878	25,704
Renewal and Replacement Fund (Unrestricted)	32,950	44,709	43,597	43,782
Total Uses of Funds	**$ 240,738**	**$ 261,420**	**$ 268,844**	**$ 282,909**

CHILLED WATER CORE BUSINESS

The Chilled Water core business provides cooling services to SAWS customers, including various downtown hotels, the City of San Antonio Convention Center, Hemisfair Plaza, Alamodome, and Port San Antonio tenants.

(dollars in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
SOURCES OF FUNDS				
Operating Revenues				
Chilled Water Sales	$ 11,102	$ 11,541	$ 10,236	$ 10,327
Total Operating Revenues	11,102	11,541	10,236	10,327
Nonoperating Revenues	137	167	-	-
Build America Bonds Subsidy	-	-	-	-
Total Revenues	11,239	11,708	10,236	10,327
Capital Recovery Fees	-	-	-	-
Draw on Equity	-	-	-	-
Total Sources of Funds	**$ 11,239**	**$ 11,708**	**$ 10,236**	**$ 10,327**
USES OF FUNDS				
Operations and Maintenance	$ 7,337	$ 7,491	$ 6,949	$ 6,629
Revenue Bond Debt Requirement	2,512	2,540	2,610	2,924
Other Debt Service Requirement	187	61	132	119
Transfer to the City of San Antonio	303	316	276	279
Balance Available for:				
Renewal and Replacement Fund (Restricted)	(626)	4	23	18
Renewal and Replacement Fund (Unrestricted)	1,526	1,296	246	358
Total Uses of Funds	**$ 11,239**	**$ 11,708**	**$ 10,236**	**$ 10,327**

NET POSITION

Net Position is the difference between the assets and liabilities of SAWS as reflected on the statement of net position and is a key indicator of financial condition. It is the measure of financial resources available for future use after payment of all obligations.

The largest portion of SAWS' net position reflects its net investment in capital assets. SAWS' net investment in capital assets represents the carrying value of capital assets and capital related deferred outflows of resources, less capital related borrowings. The primary reasons for an increase in the net investment in capital assets are capital assets acquired with non-debt resources, including assets contributed by developers, and repayments of debt. Depreciation expense serves to decrease the net investment in capital assets.

Funds that have been restricted for a specific purpose by legally enforceable legislation and bond covenants are classified as restricted net position. In accordance with City of San Antonio Ordinance 75686, SAWS must maintain an operating reserve equal to two months of the annual maintenance and operations budget. SAWS is also required to make monthly transfers to a Debt Service Fund sufficient to make the semi-annual debt service payments on outstanding bonds. Cash and investments restricted for construction purposes, net of any related liabilities, are also reflected in these totals. Finally, SAWS must accumulate and maintain a Debt Service Reserve equal to 100% of the maximum annual debt service requirements for senior lien debt obligations plus the average annual debt service on all junior lien debt obligations secured by the Debt Service Reserve. SAWS may provide surety policies equal to all or part of the required debt service reserve.

The remaining balance of SAWS' net position is unrestricted and may be used for any allowable purpose as outlined in Ordinance 75686.

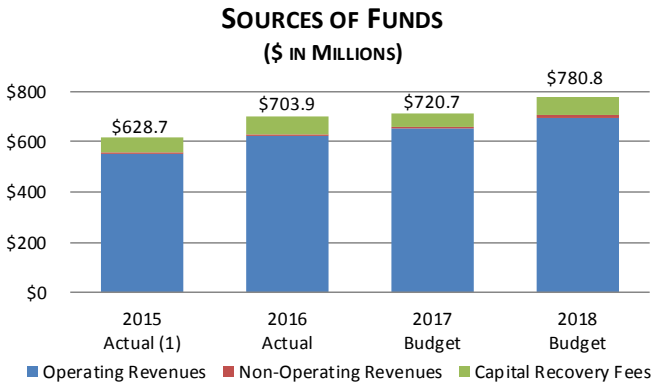
The following schedule reflects the components of Net Position at December 31, 2015, 2016 and 2017 and the projected Net Position at December 31, 2018. Net Position is projected to increase $89.1 million or 3.1% during 2018.

($ in thousands)	2015 Actual	2016 Actual	2017 Actual	2018 Projected
Net investment in capital assets	1,939,292	2,106,957	2,217,283	2,290,834
Restricted for operating reserve	45,801	52,279	54,143	55,420
Restricted for debt service	56,775	60,396	59,719	69,250
Restricted for debt service reserve	62,716	56,016	56,364	56,364
Restricted for construction	168,968	150,198	188,227	168,289
Unrestricted	126,352	187,503	278,542	303,237
Net Position, end of year	**$2,399,904**	**$2,613,349**	**$2,854,278**	**$2,943,393**

SOURCES OF FUNDS

The following table summarizes the 2018 budgeted Sources of Funds for all core businesses.

(dollars in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
SOURCES OF FUNDS				
Operating Revenues				
Sewer Service Charges	$ 208,912	$ 229,445	$ 238,496	$ 249,969
Metered Water Sales	173,096	195,887	202,690	225,247
Water Supply Fee	120,150	133,421	150,862	161,513
EAA Fee	19,545	25,513	24,059	24,023
Chilled Water Sales	11,102	11,541	10,236	10,327
Conservation	9,152	10,579	10,525	11,049
Industrial Waste Surcharge	5,401	6,292	6,026	6,114
Stormwater	4,797	4,967	4,592	5,204
Recycled Water System	5,046	5,657	5,548	5,496
Recovery of TCEQ Fees	1,840	1,908	2,235	1,957
Reduction for Affordability Program	(2,007)	(2,753)	(3,548)	(5,681)
Total Operating Revenues	**557,034**	**622,457**	**651,721**	**695,218**
Nonoperating Revenues	2,486	4,492	4,450	7,826
Build America Bonds Subsidy	3,690	3,653	3,585	3,524
Total Revenues	**563,210**	**630,602**	**659,756**	**706,568**
Capital Recovery Fees	64,056	67,991	56,103	72,877
Grant Revenue		3,866		
Draw on Equity	1,400	1,400	4,850	1,400
Total Sources of Funds	**$ 628,666**	**$ 703,859**	**$ 720,709**	**$ 780,845**



REVENUES

Sources of funds include operating revenues, non-operating revenues, Build America Bonds subsidy, and capital recovery fees. Operating revenues consist primarily of revenues generated through metered billings for potable water, recycled water, wastewater and chilled water services. Additional operating revenues include special services fees designed to recover costs associated with providing services that typically benefit a particular customer or type of service. These services include various permit, sampling or laboratory fees, and account services.

WATER AND WASTEWATER CUSTOMER AND USAGE TRENDS

Over 90% of SAWS operating revenues come from the Water Supply Fee, Metered Water Sales, EAA Fee and Sewer Service Charges, which all vary based on customer's metered water usage. Fluctuations in system wide metered water usage are primarily tied to changes in:

- the number of customer connections
- the average use per customer

In the budget process, customer connections and usage data statistics and trends are tracked by each rate block to generate multiple revenue forecast projections, including:

- each rate class of SAWS (residential, general, wholesale and irrigation)
- each rate block
- inside and outside city limit customers

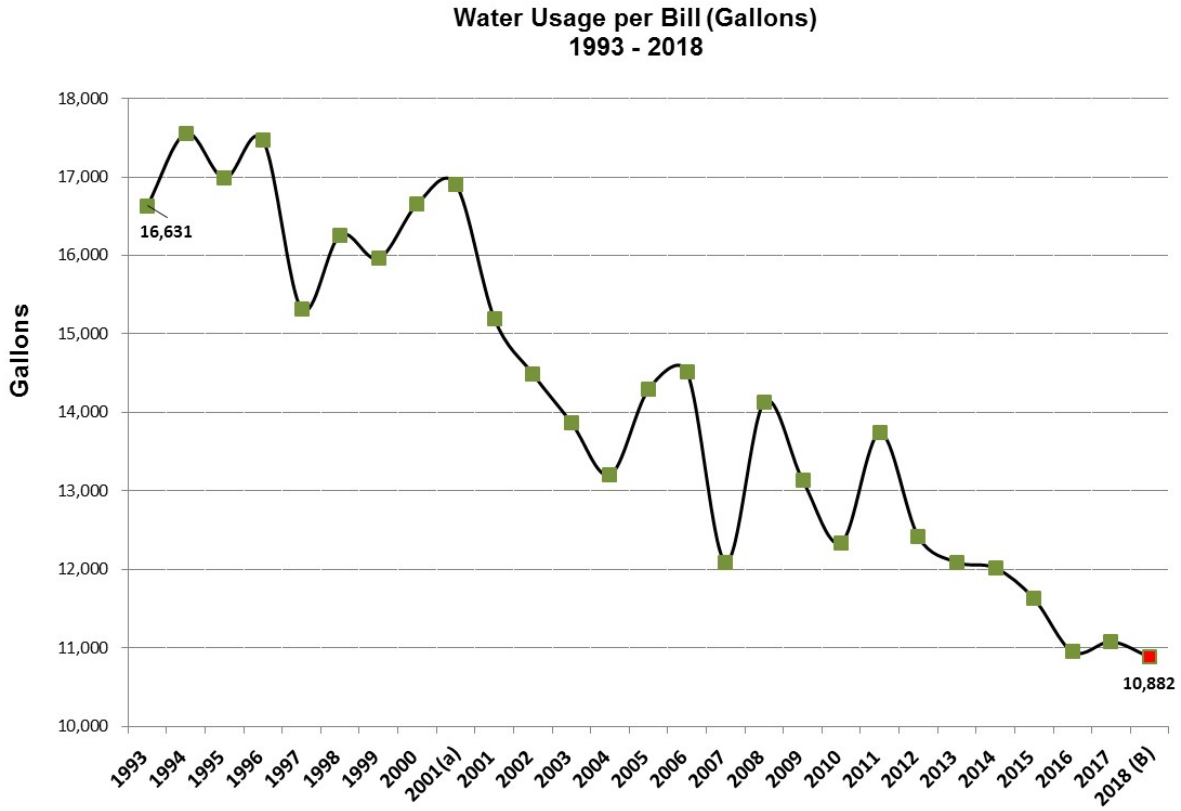
Through this systematic and comprehensive approach to forecasting metered revenues, SAWS has been able to identify developing shifts in usage patterns and underlying trends in customers' water usage. These customer connections and usage forecasts are aggregated to develop a comprehensive forecast for water and wastewater revenues of the system.

In recent years, the growth in wastewater customers has exhibited slightly higher growth than customers in the SAWS water service area. With this trend expected to continue, 2018 total water and wastewater combined customer growth is forecasted at 1.6% with water customer growth projected at 1.5% and wastewater customer growth projected at 1.7%.

Average usage per customer is typically affected by weather (temperature and precipitation), seasonal, cyclical, price elasticity, conservation, and drought restriction variables. Therefore the modeling of the average usage per customer incorporates statistical forecasting to incorporate these variables.

The following chart shows the average monthly water usage for all customers by year since 1993. Beginning in 2016, the average usage includes water usage for customers in the former SAWS DSP service area. The average usage for these customers is substantially less than the historical average usage for SAWS customers. As a result average usage drops significantly in 2016. Other noticeable effects on average usage include:

- A significant, persistent downward trend through the whole data series
- Volatility in the trend after 2004 due to the weather variations
- Impacts of ongoing drought restrictions from 2013 through 2015



Note: Gallons Prior to 2016 Do Not Include Sale to the District Special Project

(B) Budgeted

Weather fluctuations, from very rainy periods to drought conditions and related drought restrictions, factor into future water usage forecasts. Extreme weather profiles of very dry conditions in 2011 and wet conditions in 2015 and 2016 provide a starting proxy for the expected range of usage conditions in the future.

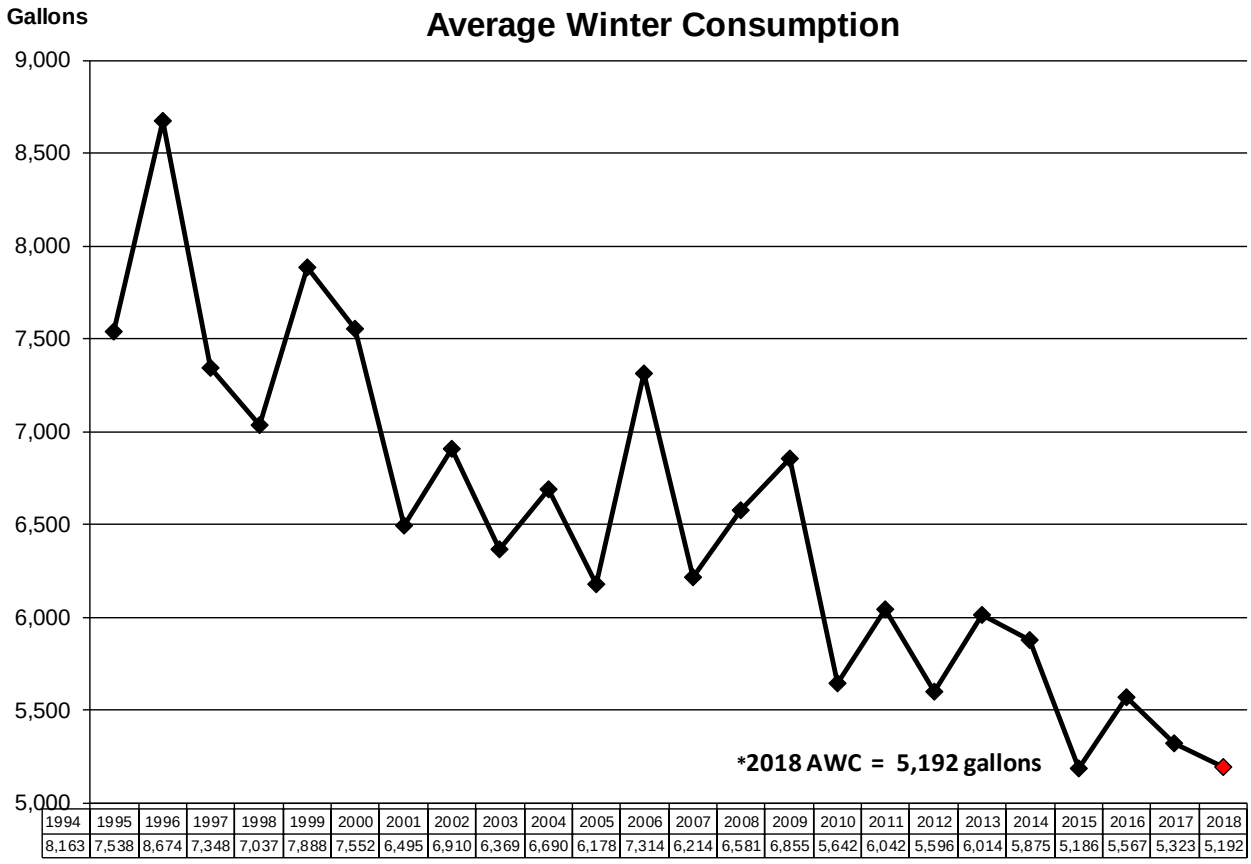
The drought that began in 2011 lasted into 2015. The resulting drought restrictions during that period, brought customer usage levels in 2013 and 2014 to what was up until then historically low usage levels. Extremely wet weather conditions during 2015 served to end the drought but also dampened average customer demand to a new historic low level of 11,645 gallons. 2016 was another very wet year. This, combined with the consolidation of the SAWS DSP service areas, resulted in average customer usage of 10,948 gallons for 2016. Average customer usage increased to 11,078 gallons in 2017 as the year was drier than 2015 or 2016.

In order to minimize the financial risk to the system of overestimating revenues, 2018 budgeted revenues assume average customer use per bill of 10,882 gallons. This forecast allows for the possibility of either recurring wet conditions or drought restrictions as well as accounts for impacts of continuing conservation efforts. Total budgeted water usage of 65.4 billion gallons for 2018 is 0.9% more than the 64.8 billion gallons budgeted in 2017 but in line with actual 2017 water usage.

Metered wastewater volumetric revenues are based on contributed flow estimated through water usage. For the commercial class, all water usage with the exception of water used for irrigation is subject to wastewater charges. For the residential class, the contributed flow is estimated through the average winter consumption (AWC), which is the average water usage during three consecutive billing periods beginning after November 15 and ending on or about March 15 of each year.

The 2018 AWC budget of 5,192 gallons assumes a systematic decline in use per customer conditions due to water conservation and increased awareness of rate adjustments that affect the customer's bill.

The AWC, as shown in the following chart, has declined persistently since 1994 as a result of indoor conservation efforts and increasing public awareness about the winter averaging method and measurement period. The 2018 budgeted AWC of 5,192 projects that this trend will continue, although at a gradually slowing rate of decline.



1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
8,163	7,538	8,674	7,348	7,037	7,888	7,552	6,495	6,910	6,369	6,690	6,178	7,314	6,214	6,581	6,855	5,642	6,042	5,596	6,014	5,875	5,186	5,567	5,323	5,192

Operating Revenues

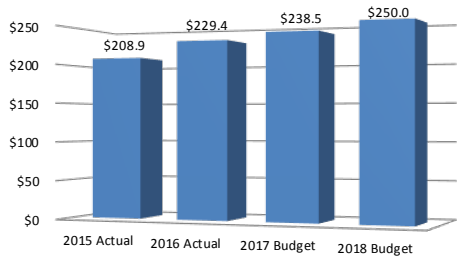
The 2018 revenue budget includes a rate adjustment of 5.8% on an average residential bill (*7,092 gallons water; 5,668 wastewater assumed*). Details of the rate adjustment are as follows:

- 4.5% Water Supply Fee, 9.7% water delivery, and 3.6% wastewater rate adjustments
- Rate increases are effective for usage beginning January 1, 2018
- Rate adjustments are projected to result in additional operating revenue of $36.3 million in 2018

Wastewater Operating Revenues

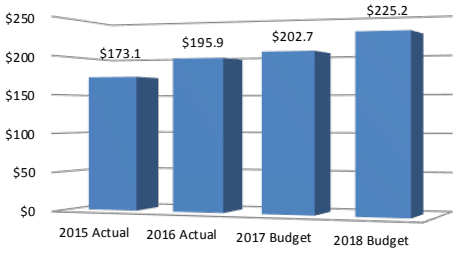
Wastewater operating revenues recover the costs associated with the collection and treatment of wastewater. Sewer service charges consist of a fixed monthly service availability fee and volumetric charges based on each customer's contributed wastewater flow. Residential contributed wastewater flow is estimated based upon a customer's water usage during three consecutive billing periods between November 15th and March 15th. For all other customers, actual monthly water usage, excluding any amount used for irrigation (metered or assumed), is used to calculate contributed wastewater flow.

Sewer Service Charges
($ in Millions)



Wastewater operating revenues for 2018 consist primarily of $250.0 million in sewer service charges and $6.1 million in sewer surcharge revenues. Net metered wastewater revenues include a 3.6% rate adjustment forecast to generate $8.6 million in additional wastewater revenue in 2018.

Metered Water Sales
($ in Millions)

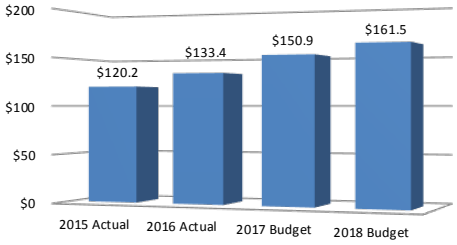


Water Delivery Operating Revenues

Water delivery operating revenues recover the costs associated with the production, transmission, and distribution of potable water to the customer primarily through monthly fixed and volumetric charges on each customer's metered water usage. 2018 metered water sales are forecast at $225.2 million, including a 9.7% rate adjustment forecast to generate $19.3 million in additional water revenue in 2018.

The 2018 revenue forecast assumes that water sales will total 65.4 billion gallons which is a 0.9% increase from the 64.8billion gallons forecasted for the 2017 SAWS annual budget. The increase in assumed usage reflects increased customer growth offset slightly by declining per-customer usage in recent years.

Water Supply Fee Revenues
($ in Millions)



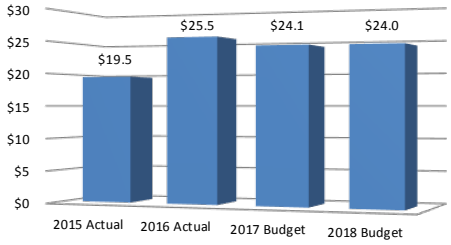
Water Supply Operating Revenues

2018 budgeted water supply operating revenues consist primarily of revenues from: the Water Supply Fee; Edwards Aquifer Authority pass-through fees, and recycled water charges. Additionally, SAWS allocates a portion of water delivery charges to the water supply core business to fund conservation programs and receives fees from the City of San Antonio to provide services related to the City's storm water program.

The Water Supply Fee was implemented in 2001 to support one of SAWS fundamental responsibilities: developing and procuring additional water supplies. The Water Supply Fees consists of volumetric charges assessed on customers' meter water usage. 2018 Water Supply Fee revenues are projected to be $161.5 million which includes a 4.5% rate adjustment forecasted to generate $8.4 million in additional revenue in 2018.

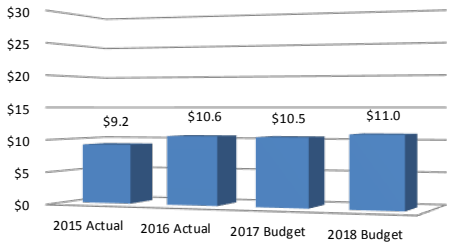
The Edwards Aquifer Authority (EAA) is statutorily empowered to impose an annual permit fee on all parties permitted to pump water from the Edwards Aquifer. The annual permit fee charged to SAWS is based on the number of acre-feet per year that SAWS is permitted to pump from the Edwards Aquifer and is recovered by SAWS through the assessment of a pass-through volumetric charge to its customers; the EAA Fee. The 2018 EAA Fee budgeted revenue is $24.0 million.

EDWARDS AQUIFER AUTHORITY FEE
($ IN MILLIONS)



Recycled water revenues are budgeted to be $5.5 million in 2018, including a 7.8% rate adjustment on all metered recycle water sales not including the CPS Energy contract. The forecasted receipt of $3.2 million from the CPS Energy contract is projected to contribute 58% of recycled water revenues.

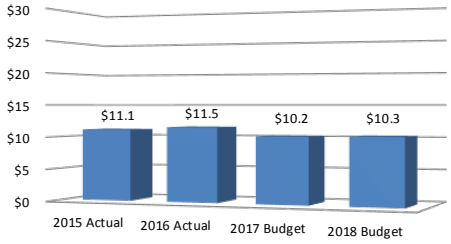
CONSERVATION
($ IN MILLIONS)



Conservation revenues are used to fund residential and commercial conservation programs. Conservation revenues for 2018 will be recovered from a portion of the residential water charges for monthly usage in excess of 7,481 gallons, a portion of non-residential monthly meter charges, and a portion of the irrigation revenues from all usage blocks. For 2018, conservation revenues are budgeted at $11.0 million or 4.5% of total Water Supply operating revenues.

SAWS bills storm water charges to customers and provides certain other services related to the City of San Antonio's Storm Water Program. The City of San Antonio will provide a reimbursement to SAWS of $5.2 million in 2018 to offset the cost of providing those services.

CHILLED WATER
($ IN MILLIONS)



CHILLED WATER OPERATING REVENUES

SAWS provides chilled water for cooling purposes primarily to commercial customers located in downtown San Antonio and Port San Antonio. 2018 revenues are projected at $10.3 million, slightly more than budgeted in 2017. Chilled water services compromise approximately 1.5% of total operating revenues.

NON-OPERATING REVENUE

2018 non-operating revenues, budgeted at $11.3 million, are comprised of $7.8 million of interest earnings on investments and a $3.5 million federal subsidy to be received on previously issued Build America Bonds. Non-operating revenues account for 1.4% of the total sources of funds for 2018.

The average investment base is assumed to be $750 million and the yield on those investments is estimated to be 1.00% in 2018.

DRAW ON EQUITY

The 2018 Draw on Equity of $1.4 million comes from an annual payment from the Lower Colorado River Authority (LCRA) that SAWS will eceive through 2019 as a result of a lawsuit settlement.

CAPITAL RECOVERY FEES

Capital recovery fees, also referred to as impact fees, are codified in Chapter 395 of the Texas Local Government Code and provide for the collection of fees to recover capital improvement costs necessary to serve new development. Through the city ordinances that formed SAWS, capital recovery fees are not considered to be included in Gross Revenues in the flow of funds. Instead, these fees are treated as capital contributions dedicated to fund eligible projects in the capital improvement program.

The collection of capital recovery fees varies from year to year based on the number of new customer connections and the fees charged. SAWS typically performs an impact fee study every five years. The last impact fee study was completed in 2014 and the impact fees charged to customers connecting to SAWS water or wastewater systems were adjusted. Impact Fee rates are not expected to change until the next impact fee study, which will begin in 2108 and conclude in 2019. Capital recovery fees are budgeted at $72.9 million in 2018, reflecting continuing strong customer growth. In total, these fees are projected to account for 9.3% of the total sources of funds for 2018.

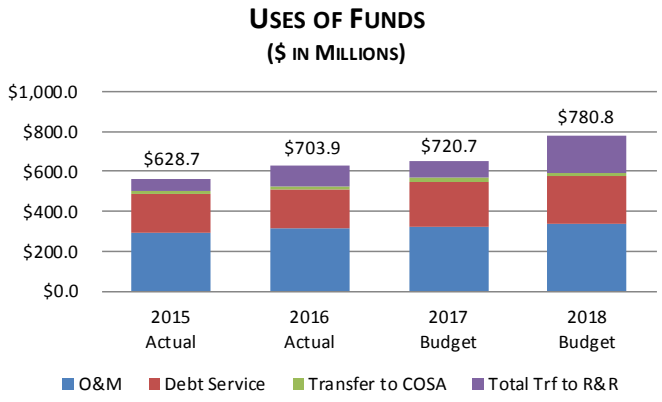
USES OF FUNDS

City of San Antonio, Texas Ordinance No. 75686 requires that Gross Revenues be pledged and appropriated to the extent required for the following uses and in the order of priority shown to pay:

1. Operations & Maintenance
2. Debt Service & Reserve Fund Requirements
3. Transfer to the City
4. Any Surplus Transferred to R&R (provides cash for funding future capital program)

Uses of funds are summarized in the following table and chart:

(dollars in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
USES OF FUNDS				
Operations and Maintenance	$ 296,518	$ 315,238	$ 324,860	$ 339,852
Revenue Bond Debt Requirement	188,388	190,537	219,048	230,830
Other Debt Service Requirement	2,001	2,892	5,005	5,405
Transfer to the City of San Antonio	12,683	14,229	16,847	18,103
Balance Available for:				
Renewal and Replacement Fund (Restricted)	65,614	72,482	57,912	75,279
Renewal and Replacement Fund (Unrestricted)	63,462	108,481	97,037	111,376
Total Uses of Funds	**$ 628,666**	**$ 703,859**	**$ 720,709**	**$ 780,845**



Operation and Maintenance Expense

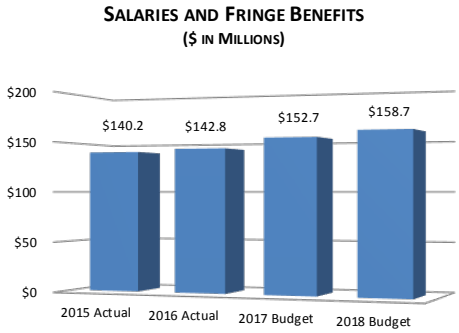
The cost to operate and maintain the system on a daily basis comprises the largest single use of SAWS' revenues. Approximately 49 cents of every dollar collected from customers in 2018 will go toward supporting ongoing operations and maintenance. The 2018 budget for Operations and Maintenance (O&M) is $339.9 million, which is an increase of 4.6% from the 2017 budget.

SAWS operation and maintenance expenses are categorized into four major expenditure types: Salaries and Fringe Benefits, Contractual Services, Materials and Supplies, and Other Charges. Additionally, a portion of these costs are capitalized in direct support of SAWS Capital Improvement Program.

($ in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 140,174	$ 142,799	$ 152,694	$ 158,729
Contractual Services	163,864	170,845	175,567	181,534
Materials and Supplies	23,490	22,029	24,416	23,538
Other Charges	7,502	12,269	10,647	10,048
O&M Before Capitalized Cost Total	**$ 335,030**	**$ 347,942**	**$ 363,323**	**$ 373,849**
Capitalized Cost	(38,514)	(32,698)	(38,464)	(33,997)
Intercenter Transfers	2	(5)	-	-
Total O&M	**$ 296,518**	**$ 315,239**	**$ 324,859**	**$ 339,852**

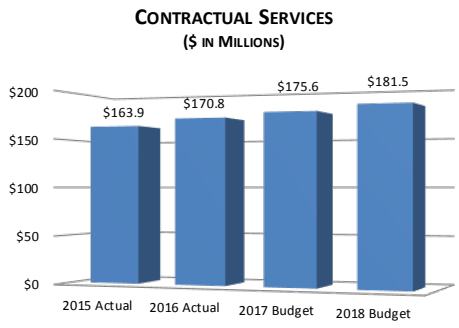
Salaries and Fringe Benefits

Salaries and fringe benefits include wages and benefits for all full-time and part-time employees including: overtime, on-call pay, employees' insurance and retirement benefits, and contributions to a trust established to provide other post-employment benefits (OPEB). Total salary and fringe benefit costs for 2017 are estimated at $158.7 million, or 42.5% of gross operation and maintenance expenditures (before capitalization) and reflects a 4.0% increase from prior year budget. The increased salary and fringe benefits are the result of an additional 9.5 full-time equivalent employees as well as projected wage adjustments. Included in wage adjustments is an increase in the minimum wage from $14 per hour to $14.50 per hour.



Contractual Services

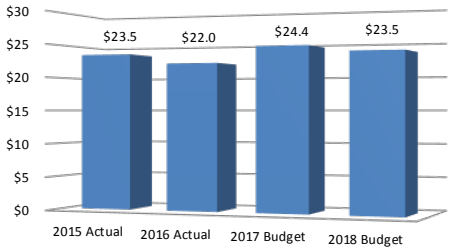
Contractual services expenditures represent operating services that are obtained through express or implied contracts. Total Contractual Services for 2018 are budgeted at $181.5 million, which is 48.6% of the gross operation and maintenance expenditures (before capitalization) and reflect a 3.4% increase over the 2017 budget. This increase is driven primarily by the projected cost of $4.8 million for electrical service for the Vista Ridge supply facilities, which is needed to meet SAWS obligations under the Water Transmission and Purchase Agreement (WTPA). Also contributing to the increase is new funding for an Automated Metering Infrastructure (AMI) pilot program.



Materials and Supplies

The Materials and Supplies budget of $23.5 million is 6.3% of gross operation and maintenance expenditures and reflects a decrease of 3.6% compared to the 2017 budget. The decrease is attributable primarily to chemical costs. With the brackish groundwater desalination plant now in its first year of production, a better estimate of future chemical costs resulted in a projected decrease in 2018. Also contributing to this decrease is a lower projected unit cost for fuel.

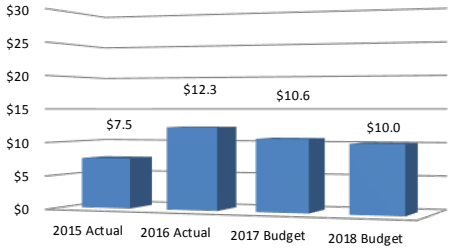
Materials and Supplies
($ in Millions)



Other Charges

Other Charges for 2018 are estimated at $10.0 million, or 2.7% of gross operation and maintenance expenditures, and reflect a 5.6% decrease from the 2017 budget. Included in this category is property, casualty and workers' compensation costs, retirees' healthcare costs, and bank charges. The decrease is due primarily to adjustments to retiree healthcare cost sharing.

Other Charges
($ in Millions)



Capitalized Costs

Operating and maintenance costs that support functions directly related to capital improvements are reflected as reductions to the gross Operations and Maintenance costs and are funded as part of SAWS' Capital Improvement Program (CIP). In 2018, Capitalized Costs are estimated at $34.0 million, or 9.1% of gross operation and maintenance expenditures.

OPERATION AND MAINTENANCE SUMMARY BY EXPENSE CLASSIFICATION

($ in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Salaries and Fringe Benefits				
511100 Salaries	$ 89,252	$ 91,187	$ 101,062	$ 104,117
511140 Overtime Pay	5,566	5,226	4,290	5,533
511150 On-Call Pay	636	617	528	544
511160 Employee Insurance	15,617	17,684	16,336	16,366
511162 Retirement	19,577	19,004	20,684	22,375
511164 Unused Sick Leave Buyback	67	(22)	70	70
511166 Personal Leave Buyback	893	846	950	950
511168 Accrued Vacation leave	974	674	1,200	1,200
511170 Incentive Pay	92	83	74	74
511175 Other Post Employment Benefits	7,500	7,500	7,500	7,500
Salaries and Fringe Benefits Total	**140,174**	**142,799**	**152,694**	**158,729**
Contractual Services				
511210 Operating Expense	1,941	2,120	2,228	2,012
511211 Rental of Facilities	299	242	297	364
511212 Alarm and Security	1,381	1,666	1,939	1,939
511214 Uniforms and Shoe Allowance	285	246	397	421
511216 Catering Svcs & Luncheons	87	94	99	108
511219 Conservation Programs	1,854	2,687	3,675	3,682
511220 Maintenance Expense	12,980	15,870	15,216	18,027
511221 Street Cut Permit Admin Fee	1,080	847	751	851
511222 St Pave/Repair Fee	2,433	1,776	1,620	1,801
511223 Preventive Maintenance	102	135	102	140
511224 Corrective Maintenance	2,007	1,804	1,717	1,350
511225 Damage Repair	153	286	179	179
511230 Equipment Rental Charges	917	621	281	291
511240 Travel	83	109	245	193
511245 Training	514	602	716	800
511247 Conferences	24	60	126	103
511250 Memberships and Subscriptions	363	495	447	435
511260 Utilities	28,327	26,662	32,633	31,612
511261 Water Options	43,519	46,616	45,165	44,347
511265 Ground Water District Pay	24,700	24,448	24,705	24,669
511270 Mail and Parcel Post	2,223	2,113	2,294	2,290
511310 Educational Assistance	136	111	167	67
511312 Contractual Prof Svcs	28,669	31,294	28,786	33,337
511313 Inspect & Assessment Fees	1,774	1,791	2,250	2,247
511314 Water Treatment Plant Svcs.	227	5	-	-
511315 Temporary Employees	1,194	642	598	553
511320 Legal Services	1,222	1,481	1,925	2,170
511370 Communications	1,301	1,379	1,657	1,668
511381 Software and Hardware Maintenance	4,070	4,644	5,351	5,879
Contractual Services Total	**163,864**	**170,845**	**175,567**	**181,534**

OPERATION AND MAINTENANCE SUMMARY BY EXPENSE CLASSIFICATION *(continued)*

($ in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Materials and Supplies				
511410 Small Tools	681	696	812	715
511417 Copy and Printing Expense	12	18	37	25
511420 Operating Materials	2,382	2,624	2,512	2,366
511421 Heating Fuel	27	16	29	15
511422 Chemicals	5,457	6,192	8,344	7,763
511425 Education of School Children	25	30	30	30
511426 Public Awareness-WQEE	-	-	1	1
511427 Enforcement	-	-	20	5
511428 Program Materials	-	-	-	-
511430 Maintenance Materials	9,960	8,887	8,283	8,566
511440 Safety Materials & Supplies	932	792	866	874
511441 Inventory Variances	937	(7)	35	15
511450 Tires and Tubes	634	733	703	703
511451 Motor Fuel & Lubricants	2,443	2,049	2,746	2,460
Materials and Supplies Total	**23,490**	**22,029**	**24,416**	**23,538**
Other Charges				
511510 Judgements and Claims	(1,177)	919	725	725
511511 AL & GL Claims - Cont. Liab.	(490)	-	330	330
511520 Bank Charges	1,043	2	20	-
511525 Cash Short/(Over)	(5)	6	-	-
511530 Employee Relations	125	170	233	204
511540 Retiree Insurance	6,245	8,096	6,899	6,440
511570 Casualty Insurance	906	997	1,230	1,140
511580 Unemployment Compensation	49	44	80	80
511590 Workers Comp Medical	807	2,035	1,130	1,130
Other Charges Total	**7,502**	**12,269**	**10,647**	**10,048**
O&M Before Capitalized Cost Total	**335,030**	**347,942**	**363,323**	**373,849**
Capitalized Cost	(38,512)	(32,703)	(38,464)	(33,997)
Grand Total	**$ 296,518**	**$ 315,239**	**$ 324,859**	**$ 339,852**

Revenue Bond Debt Service Requirement

The bonded debt service requirement is comprised of bond interest costs and the retirement of a certain portion of bond principal. This requirement is projected based on maturity schedules of existing debt and 30-year level debt service on new debt necessary to support the capital program. The 2018 debt service schedules assume the issuance of an additional $289.9 million of bonds in 2018 to provide funds for the 2018 CIP. The amount necessary to fulfill total bonded debt service requirements in 2018 on existing and new bonded debt is projected to be $230.8 million, which is 5.4% more than the 2017 budgeted level. Additional discussion of SAWS debt program is included in the Debt Service section of this report.

Other Debt Expense

SAWS expects to pay approximately $5.4 million in debt related expenses in 2018. These expenses include the following fees: remarketing agent, credit liquidity facility, rating agency, and paying agent. Remarketing agents are investment-banking firms responsible for the marketing and remarketing of variable rate obligations to investors as they mature. The credit liquidity facility provider commits to purchasing the maturing variable rate obligations should the remarketing agent be unable to remarket the variable rate obligations.

Transfer to the City of San Antonio

Pursuant to City Ordinance No. 75686, SAWS is required to transfer to the General Fund of the City up to 5% of the gross revenues as defined by ordinance. Certain revenues are exempt from gross revenues for purposes of calculating the transfer. The actual percentage contributed is determined by City Council. Since the inception of SAWS in 1992, the transfer to the City has been set at 2.7% of non-exempt gross revenues. SAWS has budgeted $18.1 million for this transfer in 2018.

Balance Available for Transfer to Renewal and Replacement Fund

After meeting all other requirements of system revenues including operations and maintenance expenses, debt service, and transfer to the City's General Fund, $186.7 million is estimated to be available for transfer to the Renewal and Replacement Fund (R&R) of which $75.3 million is restricted for use associated with SAWS Capital Improvement Program. Unrestricted R&R can be used for the purpose of funding improvements, extensions, additions, replacements, or other capital expenditures (including capital outlay) related to the System and for any other lawful purpose. At a minimum, SAWS is required to transfer to this fund an amount equal to the amount that is transferred to the City's General Fund each year.

Capital Outlay consists of expenditures for certain capital assets not included in SAWS Capital Improvement Program. These assets have an individual cost of $5,000 or more and a useful life greater than one year but less than fifteen years. This includes machinery and equipment, computer hardware, software systems, laboratory equipment, vehicles, heavy equipment, and miscellaneous equipment. The Capital Outlay program is based on priorities established by executive management. The capital outlay program for 2018 consists of $10.5 million in planned capital expenditures meeting the above criteria.

The following table summarizes the planned expenditures in 2018 for the capital outlay program:

($ in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Automobiles and Trucks	$ 433	$ 1,576	$ 3,983	$ 2,915
Computer Equipment	1,690	2,066	2,662	2,522
Heavy Equipment	2,631	3,109	1,580	2,347
Lab Equipment	60	92	200	200
Light Equipment	9	-	19	-
Machinery and Equipment	-	-	1,315	575
Miscellaneous Equipment	1,346	1,165	2,259	1,883
Pumping Equipment	934	463	863	-
Software Systems	457	423	1,111	35
Grand Total	**$ 7,560**	**$ 8,894**	**$ 13,992**	**$ 10,477**

After funding of $10.5 million for 2018 capital outlay expenditures, $100.9 million in unrestricted funds is expected to be added to the R&R Fund in 2018. These unrestricted funds are expected to be utilized to provide pay-as-you-go funding to support the SAWS Capital Improvement Program in 2019 and beyond.

Debt Service

San Antonio Water System utilizes both long-term and short-term debt to finance the Capital Improvements Program (CIP). SAWS' currently outstanding revenue bonds consist of fixed-rate and variable rate obligations. Commercial paper provides SAWS with flexibility and efficiency in the timing and amount of debt issued. The commercial paper program and variable rate debt provides a hedge to partially offset the variable rate nature of the investment portfolio.

Revenue Bonds

As of December 31, 2017 SAWS currently has Senior and Junior Lien Water System Revenue Bonds outstanding.

- **Senior Lien Water System Revenue Bonds -** comprised of Series 2009, Series 2009B, Series 2010B, Series 2011, Series 2011A, Series 2012, and Series 2012A outstanding in the amount of $742,025,000 as of December 31, 2017 and collateralized by a senior lien and pledge of the gross revenues of the System after deducting and paying the current expenses of operation and maintenance of the System and maintaining an operating reserve for operating and maintenance expenses.

- **Junior Lien Water System Revenue Bonds** - comprised of Series 2007, Series 2008, Series 2008A, Series 2009, Series 2009A, Series 2010, Series 2010A, Series 2011, Series 2011A, Series 2012 (NO RESERVE FUND), Series 2012, Series 2013A, Series 2013B (NO RESERVE FUND), Series 2013C, Series 2013D, Series 2013E (NO RESERVE FUND), Series 2014A (NO RESERVE FUND), Series 2014C, Series 2014D, Series 2015A, Series 2015B (NO RESERVE FUND), Series 2106A (NO RESERVE FUND), Taxable Series 2016B (NO RESERVE FUND), Series 2016C (NO RESERVE FUND), Series 2016D, Series 2016E, and Series 2017A (NO RESERVE FUND) outstanding in the amount of $1,597,110,000 as of December 31, 2017 and collateralized by a junior lien and pledge of the gross revenues of the System after deducting and paying the current expenses of operation and maintenance of the System, maintaining an operating reserve for operating and maintenance expenses, and paying the debt service on senior lien debt.

- **Junior Lien Water System Variable Rate Revenue Bonds** – comprised of the Series 2013F (NO RESERVE FUND) Bonds (the "Series 2013F Bonds), and the Series 2014B (NO RESERVE FUND) Bonds (the "Series 2014B Bonds), (together the "Bonds"). The Bonds were issued as multi-modal variable rate bonds, initially issued in a Securities Industry and Financial Markets Association (SIFMA) Index Mode for a three-year term. The Bonds have been remarketed into a Term Mode for a five year period. The Series 2013F Bonds were remarketed at a fixed interest rate of 2.00%, yielding 1.63% for a five year period ending October 31, 2021 and the Series 2014B Bonds were remarketed at a fixed interest rate of 2.00%, yielding 1.80% for a five year period ending October 31, 2022. Total Junior Lien Variable Rate Revenue Bonds outstanding as of December 31, 2017 was $198,385,000. The debt service for the variable rate bonds is collateralized by a junior lien and pledge of the gross revenues of the System after deducting and paying the current expenses of operation and maintenance of the System, maintaining an operating reserve for operating and maintenance expenses, and paying the debt service on senior lien debt.

- **Subordinate Lien Revenue and Refunding Bonds - Interest Rate Hedge Agreement (Swap) -** In 2003, $122.5 million of "City of San Antonio, Texas Water System Subordinate Lien Revenue and Refunding Bonds, Series 2003-A and 2003-B" (the "Subordinate Lien Obligations") were issued in a weekly interest rate mode. To hedge against changes in interest expenses, the City of San Antonio, through SAWS, entered into an interest rate hedge agreement (the "Swap Agreement") under which SAWS must pay a fixed rate of 4.18% and receive a variable rate which corresponds to the Municipal Swap Index published by SIFMA. The rates are applied to a specified notional amount which matches the amortization schedule of the principal amount of the Subordinate Lien Obligations. The payments under this obligation are collateralized by a subordinate lien and pledge of the gross revenues of the System after deducting and paying the current expenses of operation and maintenance of the system, maintaining an operating reserve for operating and maintenance expenses, and paying debt service on senior lien and junior lien debt.

  In 2008, SAWS issued a Notice of Partial Redemption for $110.6 million of the Subordinate Lien Obligations due to unfavorable market conditions relating to variable rate demand obligations, resulting in the related interest rate hedge agreement not providing an effective hedge against short term interest rate movements applicable to the related obligations. The Subordinate Lien Obligations were redeemed with commercial paper notes. At December 31, 2017, $84,705,000 of the commercial paper notes outstanding are hedged by the Swap Agreement.

  SAWS still considers the Swap Agreement to be a valuable variable rate management tool within its debt portfolio. The obligation to pay the fixed rate of 4.18% on the notional amount outstanding remains and is included in the 2018 budgeted debt service requirements of SAWS at the original principal amortization of the Subordinate Lien Obligations.

RESERVE FUND REQUIREMENT

SAWS' bond ordinance requires the maintenance of a reserve fund for the payment of senior lien and junior lien debt obligations in an amount equal to 100% of the maximum annual debt service requirement for the senior lien obligations and 100% of the average annual debt service requirement for the junior lien obligations requiring a reserve fund. The ordinance provides for the use of cash, debt, and surety policies or a combination thereof, to satisfy the reserve fund requirement. The debt service schedules for the bonds anticipated to be issued in 2018 assumes any required increase in the reserve fund will be funded with proceeds from bonds issued.

TAX EXEMPT COMMERCIAL PAPER (TECP)

SAWS also maintains a commercial paper program that is used to provide funds for the interim financing of a portion of the capital improvements program. City Council of the City of San Antonio has authorized a commercial paper program of up to $500 million. The TECP program is supported by two revolving credit agreements, one with Bank of Tokyo-Mitsubishi UFJ, Ltd. (the "Series A Agreement"), and the other with Wells Fargo Bank, N.A (the "Series B Agreement" and, together with the Series A Agreement, the "Agreements"). Bank of Tokyo-Mitsubishi UFJ, Ltd.

currently supports a $350 million program of Series A TECP notes, and Wells Fargo Bank, N.A. currently supports a $100 million program of Series B TECP notes. The Series A Agreement extends to October 4, 2018. The Series B Agreement extends to January 15, 2021. Pursuant to these Agreements, the revolving line of credit currently totals $450 million.

The 2018 Budget assumes approximately $304 million of commercial paper remains outstanding to fund capital improvement projects through 2018. As stated in the "Interest Rate Hedge Agreement (Swap)" section herein, an additional $84.7 million of the commercial paper program is attributable to the redemption of the Subordinate Lien Obligations. The 2018 Budget assumes that the interest to be paid on the TECP attributable to the redemption of the Subordinate Lien Obligations will be offset in its entirety by the amount to be received under the variable rate leg of the Swap. SAWS' capital financing plan provides for the refunding of commercial paper as the outstanding balance trends toward the upper limit of the Agreement to ensure the outstanding balance does not exceed the revolving line of credit amount.

Bond and Commercial Paper Ratings

In January 2017, SAWS' credit ratings were reaffirmed by the three major rating agencies. These ratings are as follows:

	Senior Lien	Junior Lien	TECP Series A/TECP Series B
Fitch Ratings	AA+	AA	F1/F1+
Moody's Investors Service	Aa1	Aa2	P-1/P-1
Standard & Poor's	AA+	AA	A-1+/A-1+

The high quality ratings reflects SAWS' large, diverse and growing service area, sound financial performance, long term planning in water supply and infrastructure needs, and competitive water and sewer rates.

DEBT COVERAGE

SAWS is required by ordinance to maintain a debt coverage ratio of 1.25 times the annual debt service on outstanding senior lien debt. The 2018 Annual Operating Budget projects an estimated 2018 Senior Lien Debt Coverage ratio of 3.93 times and 2018 Total Debt Coverage ratio of 1.57 times.

DEBT COVERAGE CALCULATION *($ in thousands)*		
Total Sources of Funds		**$780,845**
Less Revenues from:		
City Public Service contract		3,223
Interest on CPS contract		
Capital Recovery Fees		72,878
Transfer from Renewal & Replacement Fund		1,400
Interest on Project Funds		1,125
Gross Revenues as defined by Ordinance No. 75686	**$**	**702,219**
Less: Operations & Maintenance		339,852
Pledged Revenues as defined by Ordinance No. 75686	**$**	**362,367**
2018 Senior Lien Debt Service Requirement	$	92,276
2018 Senior Lien Debt Coverage Ratio		**3.93** x
Maximum Senior Lien Debt Service Requirement (Year 2027)	$	120,589
Maximum Senior Lien Debt Coverage Ratio		**3.00** x
2018 Total Bonded Debt Service Requirement	$	230,830
2018 Total Bonded Debt Coverage Ratio		**1.57** x
Maximum Total Bonded Debt Service Requirement (Year 2021)	$	232,271
Maximum Total Bonded Debt Coverage Ratio		**1.56** x

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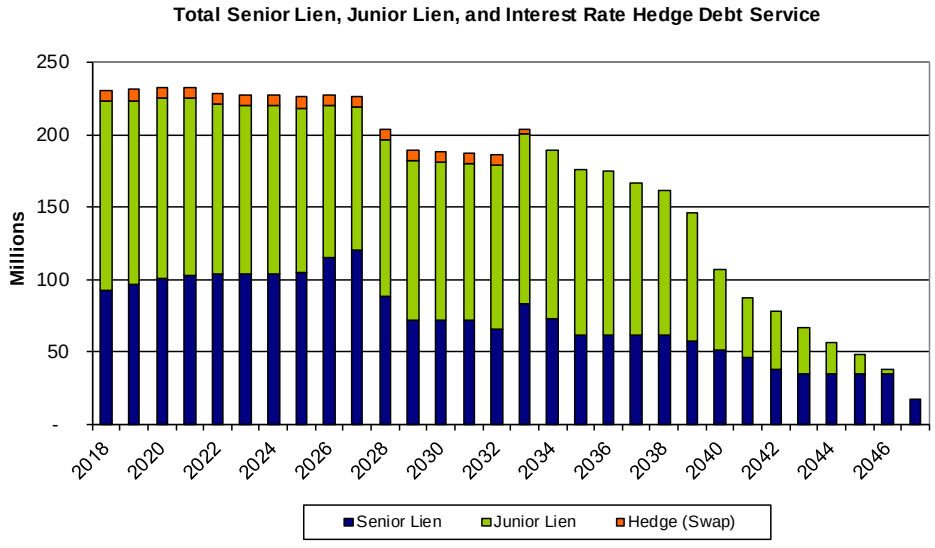
BUDGETED REVENUE AND REFUNDING BONDS DEBT SERVICE SCHEDULES

Fiscal Year	Senior Lien			Junior Lien		
December 31,	Principal	Interest	Total	Principal	Interest	Total
2018	30,703,333	61,571,031	92,274,365	64,715,000	66,580,226	131,295,226
2019	36,810,000	60,222,844	97,032,844	61,985,000	64,696,788	126,681,788
2020	42,335,000	58,576,270	100,911,270	61,283,333	62,578,897	123,862,230
2021	45,763,333	56,580,471	102,343,804	62,273,334	60,347,944	122,621,278
2022	49,036,667	54,377,202	103,413,869	59,706,666	58,332,177	118,038,843
2023	51,793,333	51,995,895	103,789,229	60,723,333	55,989,705	116,713,038
2024	54,346,667	49,468,587	103,815,254	62,250,000	53,594,742	115,844,742
2025	57,770,000	46,806,011	104,576,011	62,725,000	51,125,198	113,850,198
2026	71,321,667	43,955,425	115,277,091	55,785,000	48,609,064	104,394,064
2027	80,115,000	40,473,641	120,588,641	52,086,667	46,391,491	98,478,158
2028	51,596,667	36,777,683	88,374,350	63,243,333	44,400,121	107,643,454
2029	37,811,667	34,289,968	72,101,635	68,086,667	41,918,399	110,005,066
2030	39,553,333	32,431,293	71,984,627	69,396,667	39,270,393	108,667,060
2031	41,351,667	30,485,472	71,837,138	71,151,666	36,625,461	107,777,127
2032	37,525,000	28,490,876	66,015,876	78,991,667	33,859,310	112,850,977
2033	56,636,667	26,695,624	83,332,290	87,028,333	30,707,355	117,735,688
2034	48,916,667	23,797,009	72,713,676	89,790,000	27,154,432	116,944,432
2035	40,913,333	21,212,047	62,125,381	90,141,667	23,539,329	113,680,996
2036	42,728,333	19,203,650	61,931,984	92,523,333	19,923,888	112,447,221
2037	44,650,000	17,105,987	61,755,987	88,876,667	16,441,735	105,318,402
2038	46,645,000	14,914,778	61,559,778	86,941,667	12,982,085	99,923,752
2039	44,520,000	12,626,140	57,146,140	79,166,667	9,363,387	88,530,054
2040	40,631,667	10,456,492	51,088,158	49,123,333	6,314,699	55,438,033
2041	37,933,333	8,622,347	46,555,680	36,228,333	4,621,815	40,850,148
2042	31,403,333	7,008,272	38,411,605	36,510,000	3,510,467	40,020,467
2043	29,355,000	5,622,019	34,977,019	29,100,000	2,381,092	31,481,092
2044	30,660,000	4,309,906	34,969,906	19,716,667	1,438,044	21,154,710
2045	32,030,000	2,939,263	34,969,263	12,268,333	711,258	12,979,591
2046	33,480,000	1,506,925	34,986,925	3,316,667	172,553	3,489,219
2047	17,220,000	387,450	17,607,450	-	-	-
	1,305,556,667	862,910,578	2,168,467,244	1,755,135,000	923,582,054	2,678,717,054

Amounts represent transfers to the Debt Service Fund for existing and proposed debt, including obligations under the 2003 swap agreement.

BUDGETED REVENUE AND REFUNDING BONDS DEBT SERVICE SCHEDULES

Fiscal Year	Interest Rate Hedge (Swap)			Total Bonded Service		
December 31,	Principal	Interest	Total	Principal	Interest	Total
2018	3,823,333	3,437,284	7,260,617	99,241,667	131,588,541	230,830,208
2019	3,996,667	3,277,468	7,274,135	102,791,667	128,197,100	230,988,767
2020	4,178,333	3,110,408	7,288,741	107,796,667	124,265,574	232,062,241
2021	4,370,000	2,935,753	7,305,753	112,406,667	119,864,168	232,270,835
2022	4,571,667	2,753,087	7,324,754	113,315,000	115,462,467	228,777,466
2023	4,780,000	2,561,992	7,341,992	117,296,667	110,547,592	227,844,259
2024	4,996,667	2,362,188	7,358,854	121,593,333	105,425,517	227,018,851
2025	5,226,667	2,153,327	7,379,994	125,721,667	100,084,536	225,806,203
2026	5,461,667	1,934,852	7,396,519	132,568,333	94,499,341	227,067,675
2027	5,710,000	1,706,555	7,416,555	137,911,667	88,571,687	226,483,353
2028	5,971,667	1,467,877	7,439,543	120,811,667	82,645,681	203,457,347
2029	6,243,333	1,218,261	7,461,594	112,141,667	77,426,628	189,568,295
2030	6,528,333	957,290	7,485,623	115,478,334	72,658,976	188,137,309
2031	6,825,000	684,405	7,509,405	119,328,333	67,795,337	187,123,671
2032	7,135,000	399,120	7,534,120	123,651,667	62,749,307	186,400,973
2033	2,413,333	100,877	2,514,211	146,078,333	57,503,856	203,582,189
2034	-	-	-	138,706,667	50,951,441	189,658,108
2035	-	-	-	131,055,000	44,751,376	175,806,376
2036	-	-	-	135,251,667	39,127,538	174,379,205
2037	-	-	-	133,526,667	33,547,722	167,074,389
2038	-	-	-	133,586,666	27,896,863	161,483,529
2039	-	-	-	123,686,667	21,989,527	145,676,194
2040	-	-	-	89,755,000	16,771,191	106,526,191
2041	-	-	-	74,161,667	13,244,162	87,405,828
2042	-	-	-	67,913,333	10,518,739	78,432,072
2043	-	-	-	58,455,000	8,003,111	66,458,111
2044	-	-	-	50,376,667	5,747,950	56,124,617
2045	-	-	-	44,298,333	3,650,520	47,948,853
2046	-	-	-	36,796,667	1,679,478	38,476,144
2047	-	-	-	17,220,000	387,450	17,607,450
	82,231,667	31,060,744	113,292,411	3,142,923,333	1,817,553,376	4,960,476,709



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Organization and Staffing

ORGANIZATION AND STAFFING

OPERATIONS AND MAINTENANCE SUMMARY BY DEPARTMENT

($ in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Board of Trustees and Pres/CEO				
Board of Trustees	$ 51	$ 73	$ 58	$ 64
Office of the President-CEO	975	1,213	1,120	1,067
Board of Trustees Support	180	163	305	316
Internal Audit Dept	547	466	577	590
Board of Trustees and Pres/CEO Total	**1,754**	**1,915**	**2,060**	**2,037**
Engineering and Construction				
Office of the VP - Engineering and Construction	327	553	488	831
Construction	5,397	5,495	6,033	6,504
Development	4,022	3,975	3,904	4,521
Governmental Engineering	194	65	-	-
Pipelines	3,408	3,202	3,377	4,379
Plants and Major Projects	2,233	2,625	2,382	1,907
Water Supply Implementation	132	52	-	-
Engineering and Construction Total	**15,714**	**15,968**	**16,185**	**18,141**
Water Resources and Governmental Relations				
VP - Water Resources	341	53	8	8
Governmental Relations	792	864	1,215	1,063
Vista Ridge	142	402	2,016	6,659
Water Resources	71,585	73,238	72,556	71,435
Water Resources and Governmental Relations Total	**72,861**	**74,556**	**75,795**	**79,165**
Operations				
Ofc of Chief Operating Officer	624	714	676	1,104
Environmental Laboratory Services	2,229	2,235	2,244	2,180
Office of Energy Management	270	275	270	274
Resource Protection & Compliance Div	7,324	7,479	8,520	9,003
Operations Total	**10,447**	**10,702**	**11,710**	**12,562**
Distribution and Collection				
Office of the VP - Distribution and Collection	512	533	612	779
Construction and Maintenance	18,175	22,070	21,527	24,682
Distribution and Collection Support Services	783	559	443	2,244
Eastern Service Centers	12,343	11,482	12,827	10,951
Facilities	7,321	6,500	7,078	7,352
Fleet Management	8,788	8,124	8,700	9,077
Western Service Centers	12,847	11,673	11,149	10,363
Distribution and Collection Total	**60,768**	**60,942**	**62,336**	**65,447**
Production and Treatment				
Office of the VP - Production and Treatment	102	425	398	422
Ofc of Director - Production and Treatment	491	349	265	384
Chilled Water	6,113	6,201	5,725	5,338
Production	11,990	25,925	34,929	34,752
Security	2,575	2,858	3,399	3,491
Treatment Maintenance Management	31,101	17,983	17,183	17,744
Treatment Operations Management	20,743	21,464	21,690	21,239
Production and Treatment Total	**73,116**	**75,206**	**83,589**	**83,370**
Sewer System Improvements				
Capacity Assessment	2,375	2,242	2,100	1,320
Capacity Mgt O&M (CMOM)	6,580	5,591	2,473	4,289
Program Administration	7,458	9,818	9,411	6,592
Structural Sewer Assessment	5,626	4,733	2,136	2,075
Sewer System Improvements Total	**22,038**	**22,385**	**16,119**	**14,276**

OPERATIONS AND MAINTENANCE SUMMARY BY DEPARTMENT

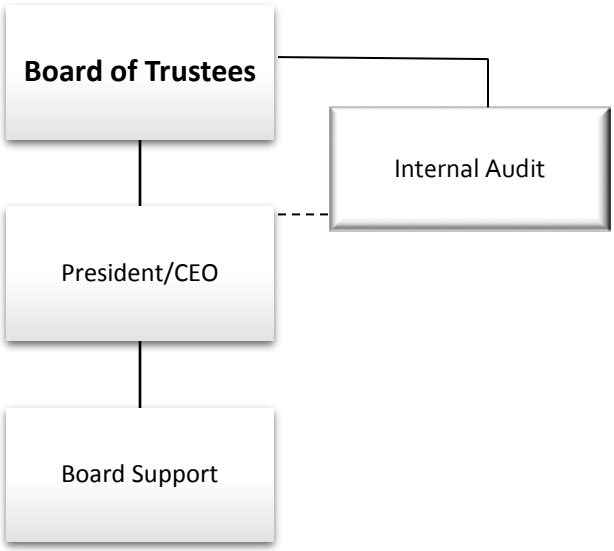
($ in thousands)	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Financial Services				
Office of the CFO	382	395	385	394
Accounting and Business Planning	2,991	2,908	3,461	3,433
Purchasing and Supply	2,688	1,862	1,847	1,877
Treasury	1,969	875	964	941
Financial Services Total	**8,029**	**6,040**	**6,657**	**6,645**
Information Systems				
Administration	701	634	890	862
Application Services	4,516	4,793	6,569	9,338
Control System Programming	594	567	579	571
Information Services Programs	568	698	690	700
Information Technology	9,715	10,248	11,165	11,554
Information Systems Total	**16,093**	**16,940**	**19,893**	**23,026**
Customer Service				
Customer Service Administration	808	959	567	515
Billing	1,776	1,870	2,467	2,210
Customer Care	4,073	4,726	5,238	5,283
Field Operations	5,191	6,065	6,550	6,326
Performance Analysis and Training	369	523	850	1,000
Customer Service Total	**12,217**	**14,143**	**15,671**	**15,334**
Legal				
Contracting	1,404	1,393	1,547	1,509
Corporate Real Estate	1,104	698	752	648
Legal	2,988	3,103	3,881	4,418
Legal Total	**5,497**	**5,195**	**6,180**	**6,575**
Human Resources				
Human Resources	3,362	3,602	3,810	4,186
Risk Management	2,569	2,838	3,245	3,155
Human Resources Total	**5,932**	**6,439**	**7,056**	**7,341**
Communications and External Affairs				
Communications Administration	398	462	478	507
Communications	1,294	1,448	1,657	1,625
Conservation	4,156	4,453	5,510	5,618
External Affairs	1,253	1,417	1,340	1,592
Communications and External Affairs Total	**7,101**	**7,780**	**8,985**	**9,342**
Other Requirements	**23,464**	**29,732**	**31,089**	**30,588**
Total O&M before Capitalized Costs	**335,030**	**347,942**	**363,323**	**373,849**
Capitalized Cost	(38,512)	(32,703)	(38,464)	(33,997)
Grand Total	**296,518**	**315,239**	**324,859**	**339,852**

OPERATIONS AND MAINTENANCE SUMMARIES BY GROUP

BOARD OF TRUSTEES AND PRESIDENT/CEO

The Board of Trustees and President /CEO Group provide the overall leadership, management direction and policy implementation for the San Antonio Water System. It consists of the Board of Trustees, Office of the President/CEO, Board support functions, and the Internal Audit function.

- **Board of Trustees** – SAWS is governed by the San Antonio Water System Board of Trustees. The Board consists of the Mayor and six members appointed by the City Council. The Board of Trustees is responsible for setting the overall policy direction of the system.
- **President/CEO** – The President/CEO is responsible and accountable for leading and managing the San Antonio Water System, including the implementation of the policy goals set by the Board of Trustees and City Council. The President/CEO sets the vision and works alongside employees to achieve SAWS' mission and goals.
- **Internal Audit –** The Internal Audit Office provides independent and objective assurance and consulting services designed to add value and improve SAWS' operations. Internal Audit co-reports to the Board of Trustees.



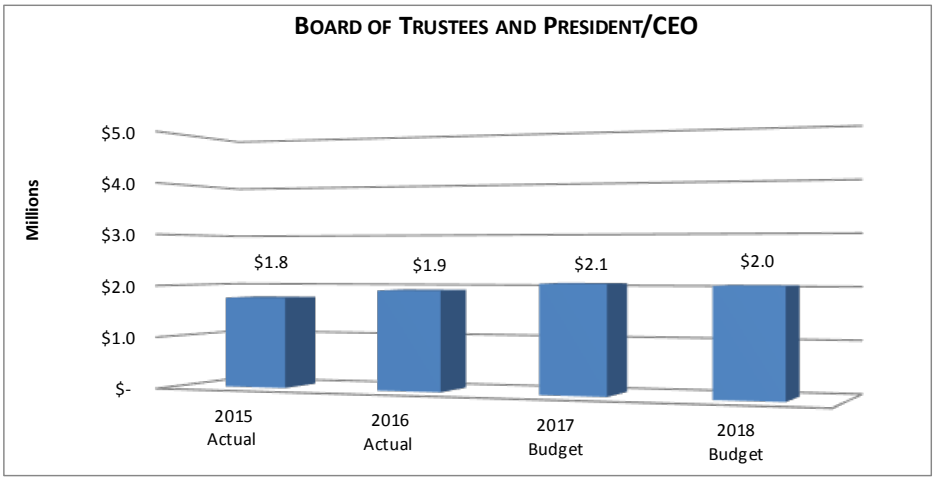
BOARD OF TRUSTEES AND PRESIDENT/CEO

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 1,498	$ 1,713	$ 1,679	$ 1,766
Contractual Services	253	196	368	258
Materials and Supplies	3	6	12	12
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**$ 1,754**	**$ 1,915**	**$ 2,060**	**$ 2,037**
Capitalized Cost	-	-	-	-
Intercenter Transfers	-	-	-	-
Total O&M	**$ 1,754**	**$ 1,915**	**$ 2,060**	**$ 2,037**
Capital Outlay	**$ 2**	**$ 2**	**$ -**	**$ -**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Board of Trustees	$ 51	$ 73	$ 58	$ 64
Office of the President-CEO	975	1,213	1,120	1,067
Board of Trustees Support	180	163	305	316
Internal Audit Dept	547	466	577	590
O&M Before Capitalized Cost Total	**1,754**	**1,915**	**2,060**	**2,037**
Capitalized Cost	-	-	-	-
Intercenter Transfers	-	-	-	-
Grand Total	**$ 1,754**	**$ 1,915**	**$ 2,060**	**$ 2,037**

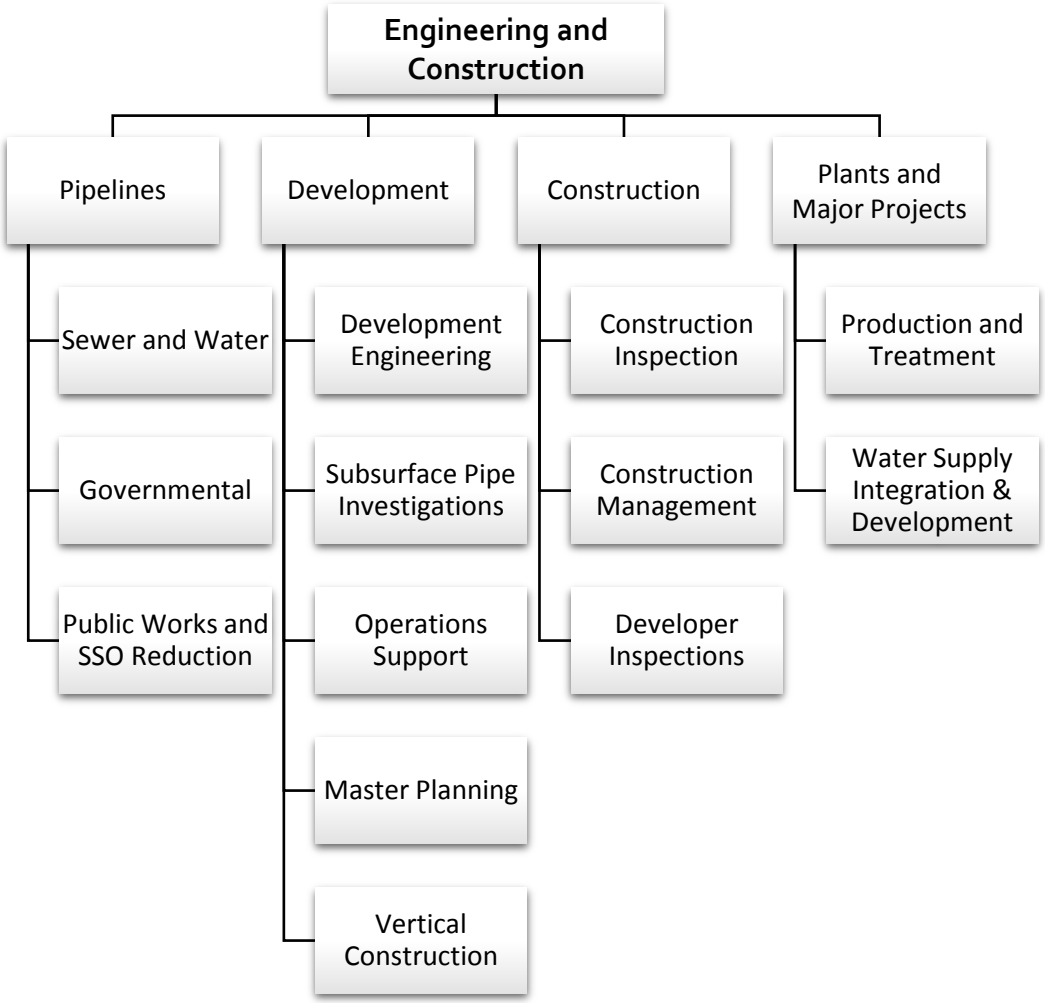
Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Office of the President-CEO	5.0	4.0	5.0	4.0
Board of Trustees Support	1.0	1.0	1.0	2.0
Internal Audit Dept	4.0	4.0	4.0	4.0
Total Full-Time Equivalent Positions	**10.0**	**9.0**	**10.0**	**10.0**



ENGINEERING AND CONSTRUCTION

The Engineering and Construction Group coordinates the development and execution of SAWS Capital Improvements Program (CIP). The group performs engineering analysis of existing facilities and plans new infrastructure to meet the increasing water and wastewater demands of the growing community. The group also designs and manages the construction of new and replacement water and wastewater infrastructure. The Engineering and Construction group is comprised of the following departments:

- **Pipelines** – Plans and coordinates design activities and manages construction for new and rehabilitated water distribution system and wastewater collection system projects.
- **Construction** – Inspects infrastructure construction projects for water delivery and sewer and water supply projects.
- **Development** – Manages impact fee program, develops water and wastewater master plans, coordinates infrastructure necessary for new development, and provides engineering support to Distribution and Collection and Production and Treatment.
- **Plants and Major Projects –** Plans, coordinates design activities for water supply integration projects, new water supply development, potable and recycled water production facilities, and wastewater treatment plants.



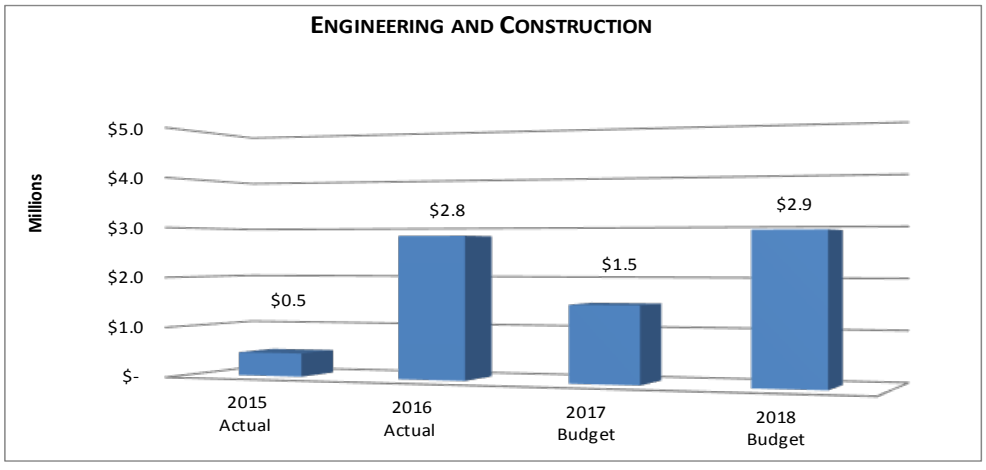
ENGINEERING AND CONSTRUCTION

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 14,509	$ 14,498	$ 15,221	$ 16,834
Contractual Services	1,140	1,387	867	1,237
Materials and Supplies	65	83	97	70
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**$ 15,714**	**$ 15,968**	**$ 16,185**	**$ 18,141**
Capitalized Cost	(15,246)	(13,142)	(14,681)	(15,221)
Intercenter Transfers	(1)	-	-	-
Total O&M	**$ 467**	**$ 2,825**	**$ 1,503**	**$ 2,921**
Capital Outlay	**$ 37**	**$ 19**	**$ 30**	**$ -**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Office of the VP - Engineering and Construction	$ 327	$ 553	$ 488	$ 831
Construction	5,397	5,495	6,033	6,504
Development	4,022	3,975	3,904	4,521
Governmental Engineering	194	65	-	-
Pipelines	3,408	3,202	3,377	4,379
Plants and Major Projects	2,233	2,625	2,382	1,907
Water Supply Implementation	132	52	-	-
O&M Before Capitalized Cost Total	**15,714**	**15,968**	**16,185**	**18,141**
Capitalized Cost	(15,246)	(13,142)	(14,681)	(15,221)
Intercenter Transfers	(1)	-	-	-
Grand Total	**$ 467**	**$ 2,825**	**$ 1,503**	**$ 2,921**

Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Office of the VP - Engineering and Construction	3.0	3.0	3.0	7.0
Construction	66.0	57.0	60.0	75.0
Development	41.5	43.0	54.0	45.0
Governmental Engineering	20.0	19.0	-	-
Pipelines	25.5	22.0	38.0	48.0
Plants and Major Projects	35.5	34.0	23.5	18.5
Water Supply Implementaion	-	5.0	-	-
Total Full-Time Equivalent Positions	**191.5**	**183.0**	**178.5**	**193.5**



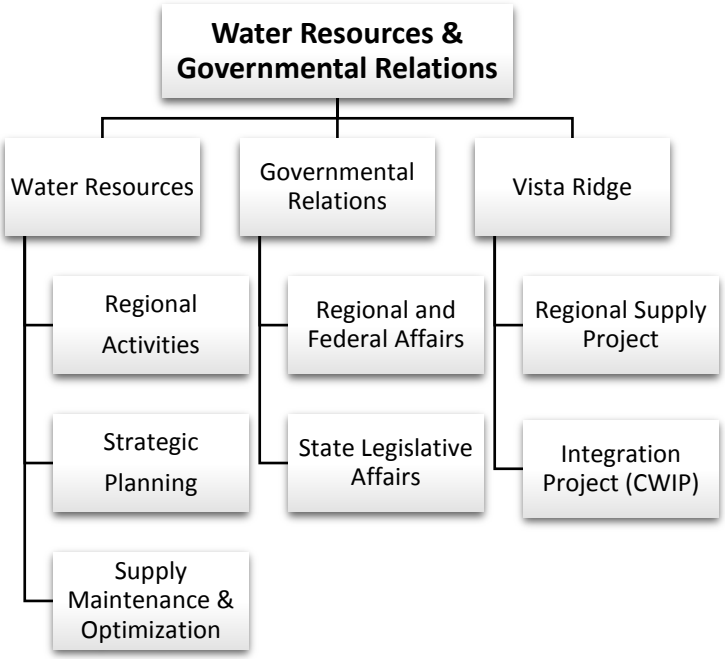
WATER RESOURCES AND GOVERNMENTAL RELATIONS

The Water Resources and Governmental Relations Group is primarily responsible for the development and management of water supplies, drought management and water rights acquisitions. The group consists of the following three departments:

- **Water Resources** – Implements the SAWS' long-range Water Management Plan, through proactively managing existing supplies to ensure customer needs are met and leading efforts in the planning and development of new water supply opportunities to meet the city's population growth. In addition to managing and developing supplies, Water Resources is also responsible for the marketing of the direct recycled water program as well as directing efforts to minimize non-revenue water, ensuring efficient use of water supplies.

- **Governmental Relations** – Identifies and manages critical issues that have public impact and require the attention of Executive Management. Manages key strategic policy issues and relationships with elected officials and agencies at the regional, state and federal levels.

- **Vista Ridge** – Manages SAWS' obligations and interests in a Public Private Partnership (P_3) contract with the Vista Ridge LLC ("Project Company") for the annual supply of 50,000 acre-feet of a new, non-Edwards Aquifer source of water for San Antonio. SAWS staff monitor the Project Company's activities during the Construction and Operations phases of the contract. Additionally, SAWS staff manage the design and construction of system improvements necessary to effectively integrate the Vista Ridge water into the existing SAWS system during all demand conditions. This will be accomplished through the completion of the Central Water Integration Pipeline (CWIP) Project



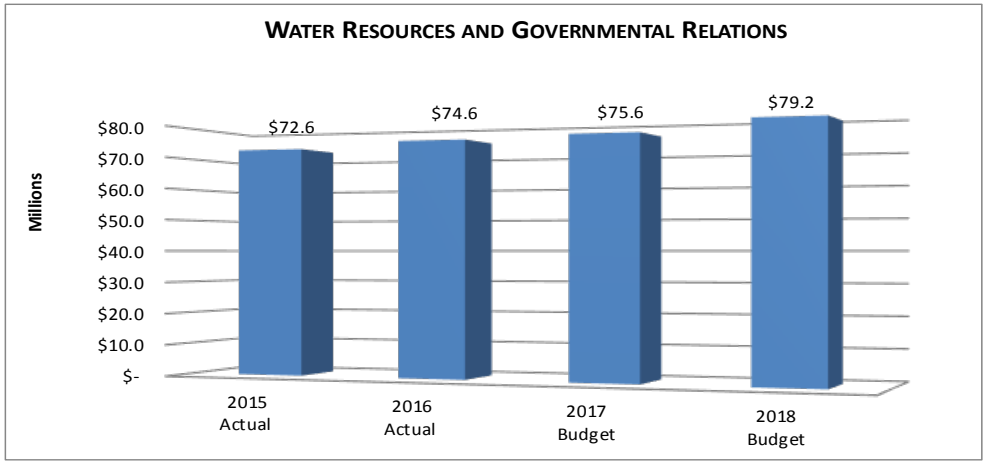
WATER RESOURCES AND GOVERNMENTAL RELATIONS

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 1,971	$ 1,680	$ 2,156	$ 2,736
Contractual Services	70,886	72,862	73,623	76,415
Materials and Supplies	4	14	15	15
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**$ 72,861**	**$ 74,556**	**$ 75,795**	**$ 79,165**
Capitalized Cost	(242)	-	(224)	-
Intercenter Transfers	15	-	-	-
Total O&M	**$ 72,634**	**$ 74,556**	**$ 75,571**	**$ 79,165**
Capital Outlay	**$ 498**	**$ 2**	**$ 122**	**$ 5**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
VP - Water Resources	$ 341	$ 53	$ 8	$ 8
Governmental Relations	792	864	1,215	1,063
Vista Ridge	142	402	2,016	6,659
Water Resources	71,585	73,238	72,556	71,435
O&M Before Capitalized Cost Total	**72,861**	**74,556**	**75,795**	**79,165**
Capitalized Cost	(242)	-	(224)	-
Intercenter Transfers	15	-	-	-
Grand Total	**$ 72,634**	**$ 74,556**	**$ 75,571**	**$ 79,165**

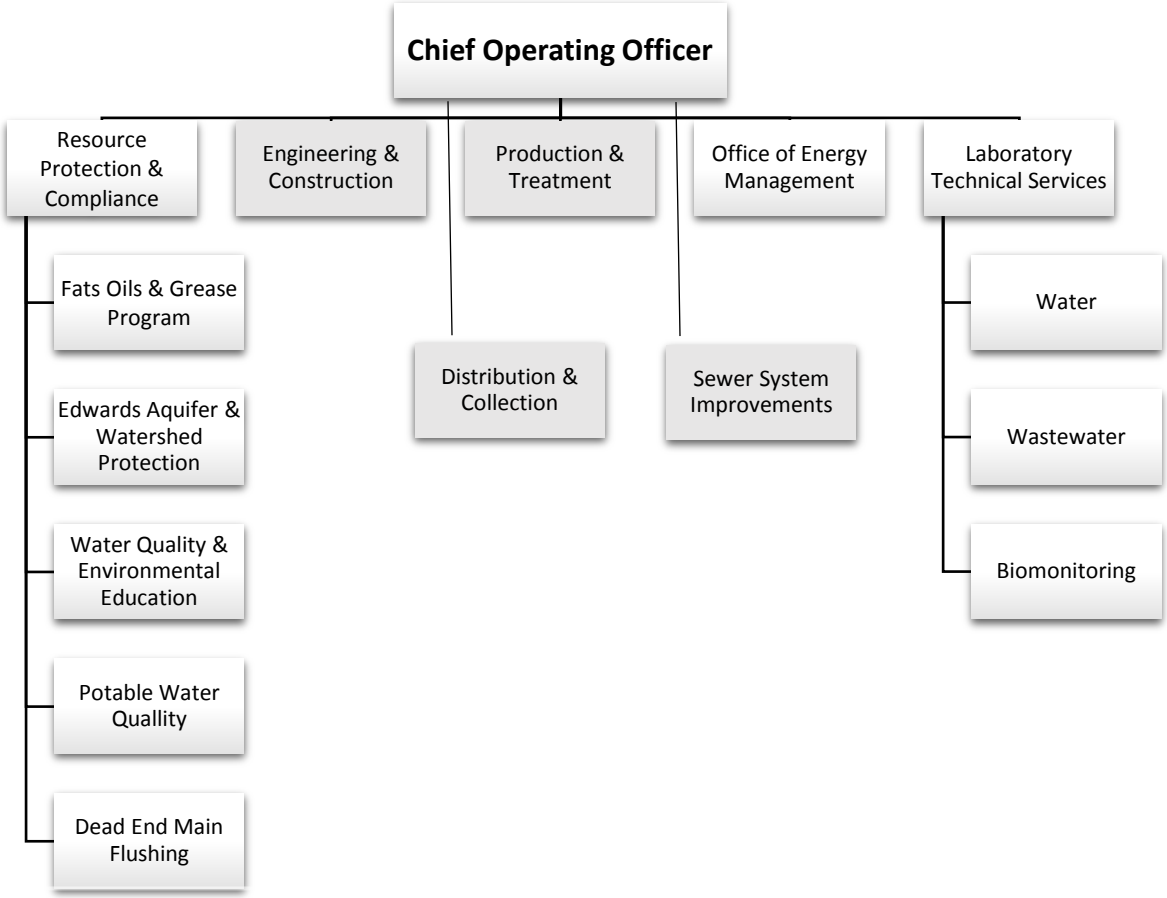
Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Office of VP - Water Resources	2.0	2.0	-	-
Governmental Relations	-	7.0	6.0	5.0
Vista Ridge	-	1.0	4.0	9.0
Water Resources	12.0	11.0	9.0	10.0
Total Full-Time Equivalent Positions	**14.0**	**21.0**	**19.0**	**24.0**



OPERATIONS

The Operations Group is managed by the Sr. Vice President and Chief Operating Officer (COO). The COO oversees the Engineering & Construction, Distribution & Collection, Production & Treatment, and Sewer System Improvement Groups. The area is responsible for managing the operation and maintenance of the water distribution and wastewater collection systems, and the water and wastewater plants. The following departments also report to the Chief Operating Officer:

- **Office of Energy Management** – Manages the electric and gas metering and bill review and payment process. Develops the energy budget and tracks expenses and analysis trends.
- **Resource Protection & Compliance** – Ensures water quality of all sources are protected; enforces the regulatory requirements established to protect regional water quality; monitors best management practices at construction sites; utilizes an extensive sampling and monitoring network for compliance purposes and oversees the Dead End Main Flushing Program.
- **Laboratory Technical Services –** The Lab is responsible for providing analytical services that ensure data integrity, reliability, responsiveness and accuracy for all of SAWS needs both in monitoring and compliance. The lab maintains a broad scope of analytical expertise covering microbiology, inorganic and organic testing activities. This broad base of technical expertise enables the laboratory to perform a wide variety of routine environmental tests to support the SAWS' water and wastewater activities. The Lab is accredited by the Texas Commission on Environmental Quality (TCEQ) under the National Environmental Laboratory Accreditation Program.



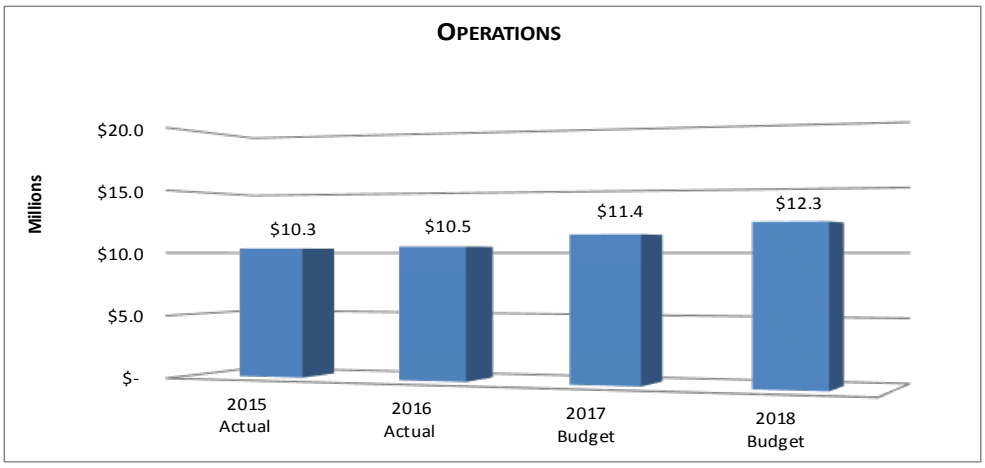
OPERATIONS

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 8,578	$ 8,762	$ 9,488	$ 9,445
Contractual Services	1,384	1,468	1,621	2,624
Materials and Supplies	485	473	601	492
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**$ 10,447**	**$ 10,702**	**$ 11,710**	**$ 12,562**
Capitalized Cost	(103)	(209)	(314)	(283)
Intercenter Transfers	2	-	-	-
Total O&M	**$ 10,346**	**$ 10,493**	**$ 11,396**	**$ 12,279**
Capital Outlay	**$ 61**	**$ 95**	**$ 422**	**$ 200**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Ofc of Chief Operating Officer	$ 624	$ 714	$ 676	$ 1,104
Environmental Laboratory Services	2,229	2,235	2,244	2,180
Office of Energy Management	270	275	270	274
Resource Protection & Compliance Div	7,324	7,479	8,520	9,003
O&M Before Capitalized Cost Total	**10,447**	**10,702**	**11,710**	**12,562**
Capitalized Cost	(103)	(209)	(314)	(283)
Intercenter Transfers	2	-	-	-
Grand Total	**$ 10,346**	**$ 10,493**	**$ 11,396**	**$ 12,279**

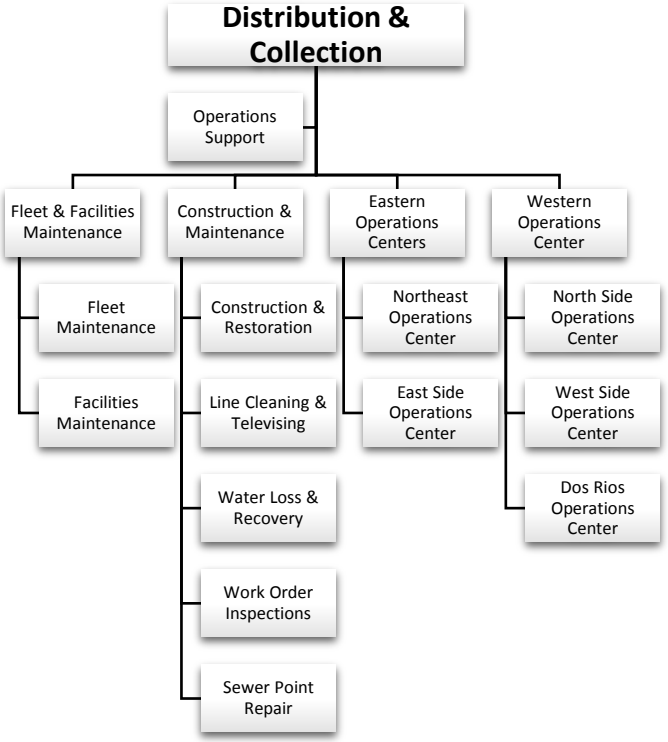
Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Ofc of Chief Operating Officer	4.0	4.0	5.0	4.0
Environmental Laboratory Services	21.0	21.0	20.0	20.0
Office of Energy Management	3.0	3.0	3.0	3.0
Resource Protection & Compliance Div	76.0	84.0	93.0	91.0
Total Full-Time Equivalent Positions	**104.0**	**112.0**	**121.0**	**118.0**



DISTRIBUTION AND COLLECTION

The Distribution and Collection Group operates, maintains and repairs over 12,500 miles of water and sewer mains, approximately 120 miles of recycled water distribution lines, and 9 miles of chilled water lines ensuring our customers receive uninterrupted, quality water and associated wastewater services. This is accomplished by the following departments:

- **Operations Centers –** SAWS utility crews are mobilized from five strategically located operations centers throughout the city: Northeast, East Side, North Side, West Side, and Dos Rios (South Side). SAWS operations centers are staffed with the necessary resources to properly repair and maintain underground water, wastewater, recycled water, and chilled water infrastructure throughout the SAWS service area.
- **Construction & Maintenance** – Repairs and proactively maintains the wastewater collection system, including line cleaning and televising to verify sewer infrastructure condition and pinpoint defects. Performs flowable fill backfills and concrete / asphalt restoration following pipeline repairs. Water Loss & Recovery oversees all meter repair resources and the proactive leak detection, valve assessment, and fire hydrant maintenance programs.
- **Fleet & Facilities Maintenance** – Provides comprehensive maintenance services for all SAWS vehicles and equipment. The Fleet Department also manages vehicle replacement and disposal. Facilities Maintenance provides building maintenance and management services at SAWS facilities.
- **Operations Support** - Provides administrative support to departments within the group, including invoice processing, data management, service contract management, materials acquisition and notification services for maintenance crews. Operations Support also performs emergency and routine field investigations including utility locate services through Field Utility Coordinators.



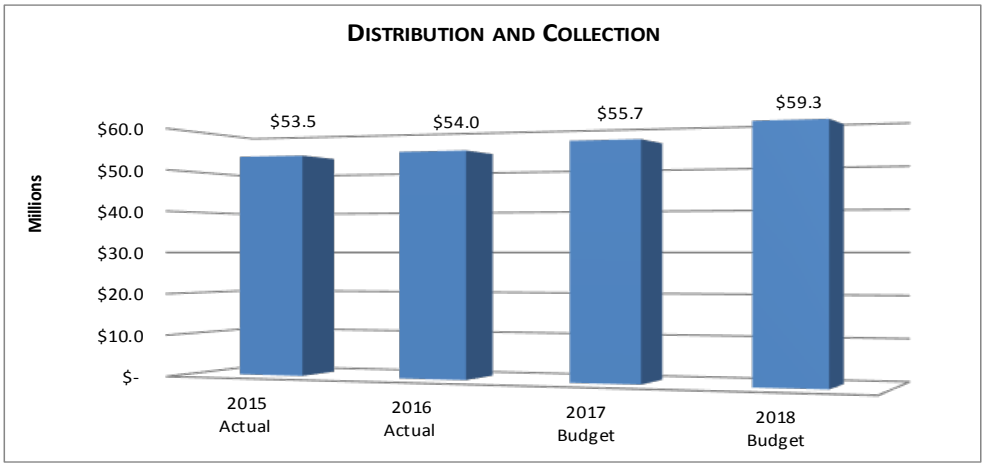
DISTRIBUTION AND COLLECTION

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 35,158	$ 34,331	$ 35,302	$ 37,182
Contractual Services	15,357	17,194	16,464	18,279
Materials and Supplies	10,241	9,419	10,570	9,985
Other Charges	12	(2)	-	-
O&M Before Capitalized Cost Total	**$ 60,768**	**$ 60,942**	**$ 62,336**	**$ 65,447**
Capitalized Cost	(7,382)	(6,973)	(6,627)	(6,189)
Intercenter Transfers	145	(5)	-	-
Total O&M	**$ 53,531**	**$ 53,964**	**$ 55,709**	**$ 59,257**
Capital Outlay	**$ 3,274**	**$ 4,747**	**$ 6,353**	**$ 6,001**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Office of the VP - Distribution and Collection	$ 512	$ 533	$ 612	$ 779
Construction and Maintenance	18,175	22,070	21,527	24,682
Distribution and Collection Support Services	783	559	443	2,244
Eastern Service Centers	12,343	11,482	12,827	10,951
Facilities	7,321	6,500	7,078	7,352
Fleet Management	8,788	8,124	8,700	9,077
Western Service Centers	12,847	11,673	11,149	10,363
O&M Before Capitalized Cost Total	**60,768**	**60,942**	**62,336**	**65,447**
Capitalized Cost	(7,382)	(6,973)	(6,627)	(6,189)
Intercenter Transfers	145	(5)	-	-
Grand Total	**$ 53,531**	**$ 53,964**	**$ 55,709**	**$ 59,257**

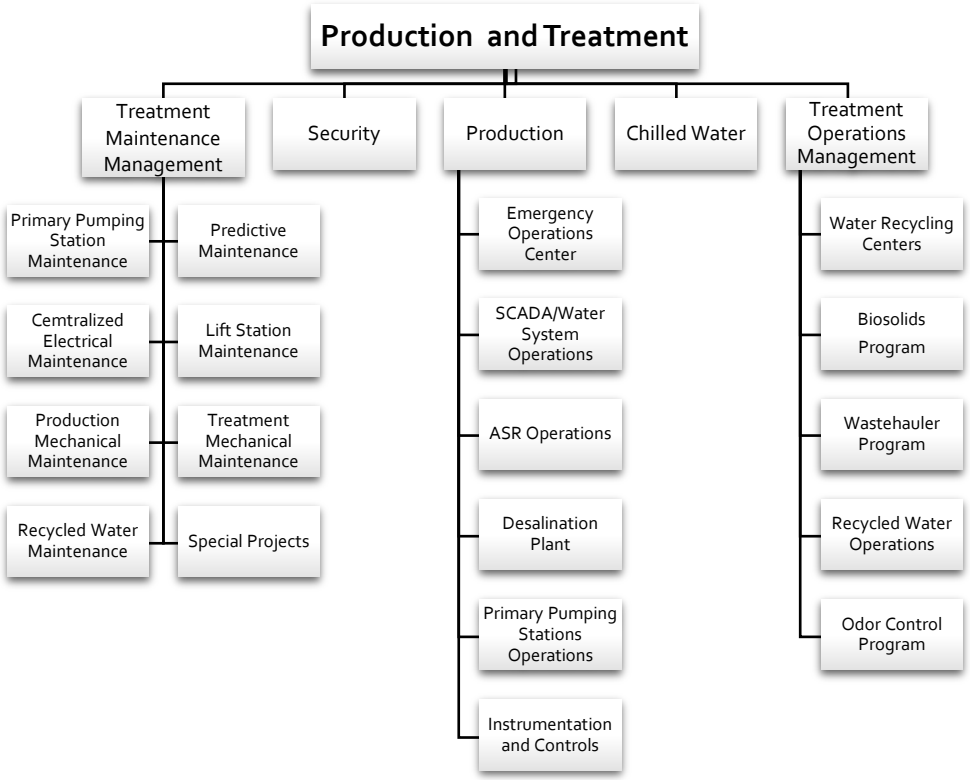
Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Office of the VP - Distribution and Collection	4.0	4.0	5.0	4.0
Construction and Maintenance	203.0	204.0	206.0	217.0
Distribution and Collection Support Services	12.0	12.0	6.0	18.0
Eastern Service Centers	157.0	154.0	153.0	138.0
Facilities	56.0	52.0	41.0	39.0
Fleet Management	42.0	44.0	43.0	44.0
Western Service Centers	122.0	141.0	143.0	141.0
Total Full-Time Equivalent Positions	**596.0**	**611.0**	**597.0**	**601.0**



PRODUCTION AND TREATMENT

The Production and Treatment Group provides the essential function of managing the 24-hour-a-day operation of the water and wastewater system. The group is responsible for the production and distribution of potable water; the treatment of wastewater for distribution in the recycle system or discharge; the processing of wastewater biosolids for ultimate disposal; the distribution of recycled water for reuse purposes and management of city wide odor control program. This group consists of the following departments:

- **Treatment Maintenance Management** – Manages centralized mechanical and electrical maintenance across all SAWS production, treatment and lift station facilities, and the H_2Oaks Facility (i.e. Aquifer Storage Recovery and Desalination Plant). The department is also responsible for maintenance of the Recycle Water system outfalls and special construction & repair projects across the system.
- **Security** – Manages a proactive security program and associated support contracts for all SAWS facilities.
- **Production** – Manages the production and distribution of potable water across SAWS service area. Oversees contract water deliveries, operates the H_2Oaks Facility and the Medina River water treatment plant. Manages centralized instrumentation and maintenance functions for all SAWS facilities. The Emergency Operations Center manages the 24-hour emergency call center and reports/dispatches crews for water leaks, main breaks and overall tactical response to problems with the system.
- **Chilled Water** - Produces chilled water to provide centralized cooling services to federal, city and private facilities in downtown San Antonio and Port San Antonio.
- **Treatment Operations Management –** Oversees all operations of the three water recycling centers as well as manages the biosolids to ensure proper recycling or disposal in compliance with state and federal regulations. Manages the Wastehauler program. Manages the odor control program. Operates the recycle water system outfalls and manages environmental flows to the river.



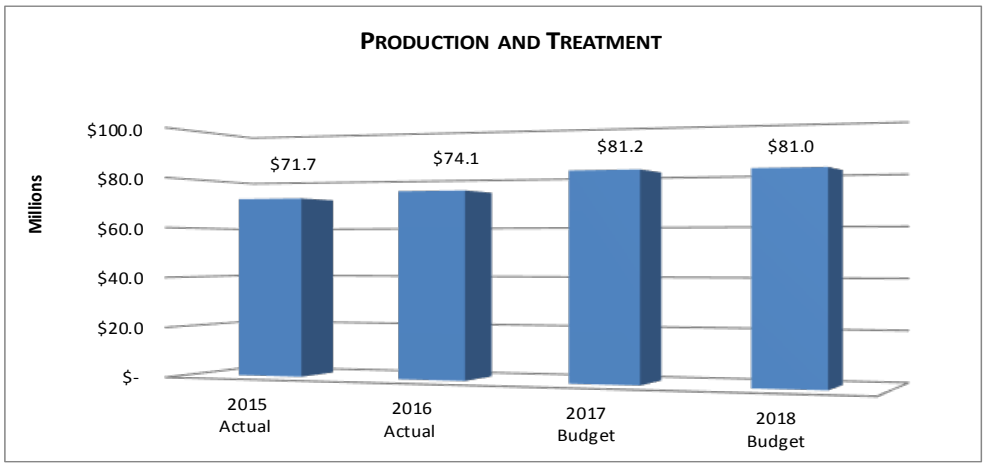
PRODUCTION AND TREATMENT OPERATIONS AND MAINTENANCE

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 22,280	$ 22,945	$ 23,181	$ 24,305
Contractual Services	40,258	41,462	48,510	47,062
Materials and Supplies	10,578	10,798	11,897	12,003
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**$ 73,116**	**$ 75,206**	**$ 83,589**	**$ 83,370**
Capitalized Cost	(1,261)	(1,094)	(2,385)	(2,358)
Intercenter Transfers	(137)	-	-	-
Total O&M	**$ 71,718**	**$ 74,112**	**$ 81,204**	**$ 81,012**
Capital Outlay	**$ 1,127**	**$ 1,586**	**$ 3,109**	**$ 1,470**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Office of the VP - Production and Treatment	$ 102	$ 425	$ 398	$ 422
Ofc of Director - Production and Treatment	491	349	265	384
Chilled Water	6,113	6,201	5,725	5,338
Production	11,990	25,925	34,929	34,752
Security	2,575	2,858	3,399	3,491
Treatment Maintenance Management	31,101	17,983	17,183	17,744
Treatment Operations Management	20,743	21,464	21,690	21,239
O&M Before Capitalized Cost Total	**73,116**	**75,206**	**83,589**	**83,370**
Capitalized Cost	(1,261)	(1,094)	(2,385)	(2,358)
Intercenter Transfers	(137)	-	-	-
Grand Total	**$ 71,718**	**$ 74,112**	**$ 81,204**	**$ 81,012**

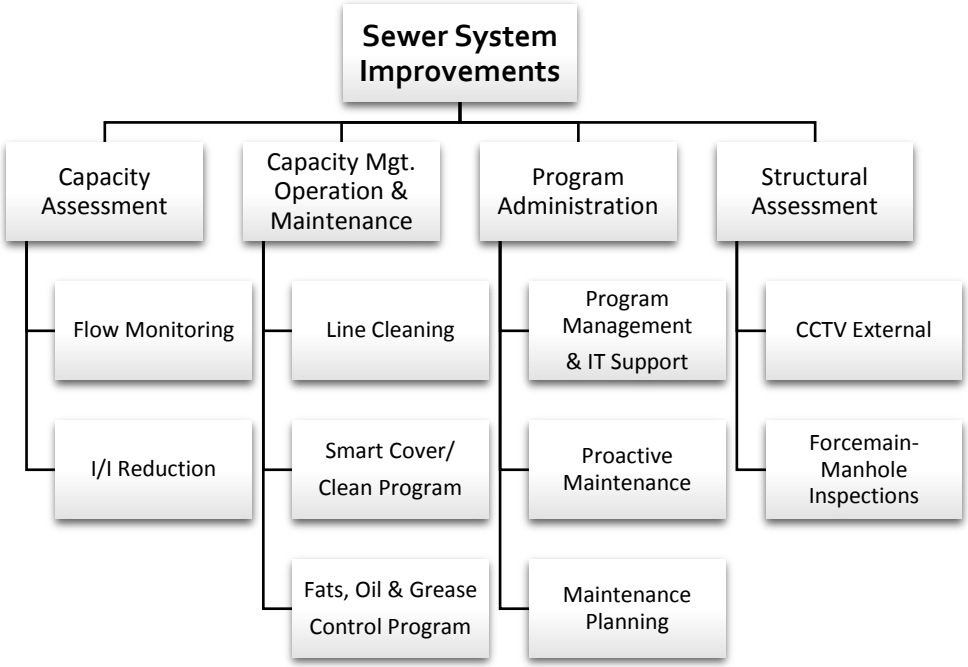
Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Office of the VP - Production and Treatment	-	-	2.0	2.0
Ofc of Director - Production and Treatment	4.0	5.0	2.0	3.0
Chilled Water	12.0	11.0	10.0	9.0
Production Department	53.0	60.0	71.0	70.0
Security	10.1	10.1	10.5	11.0
Treatment Maintenance Management	159.0	154.0	153.0	153.0
Treatment Operations Management	78.0	77.0	79.0	78.0
Total Full-Time Equivalent Positions	**316.1**	**317.1**	**327.5**	**326.0**



SEWER SYSTEM IMPROVEMENTS

The Sewer System Improvements Group is responsible for developing, implementing and administering various programs designed to reduce sanitary sewer overflows (SSO) in the wastewater collection and transmission system (WCTS). This is accomplished through the following functions:

- **Capacity Assessment** – Evaluates the capacity of the WCTS through flow monitoring and hydraulic modeling. Directs the Inflow/Infiltration (I/I) Reduction Program implemented to decrease excess flow from entering the WCTS during significant rain events.
- **Capacity Management Operation & Maintenance (CMOM) –** Executes a comprehensive program encompassing activities to optimize the performance of the WCTS, including a system-wide cleaning program, Smart Cover/Clean Program and Fats, Oils, and Grease Control Program.
- **Program Administration** – Directs the comprehensive Sewer System Improvement program activities related to SSO reduction. Provides overall data management to include reporting requirements pertaining to SSOs as well as the operations and maintenance of the WCTS.
- **Structural Sewer Assessment** – Coordinates and executes activities associated with inspecting, assessing and performing remedial measures associated with condition and capacity constraints in the WCTS.



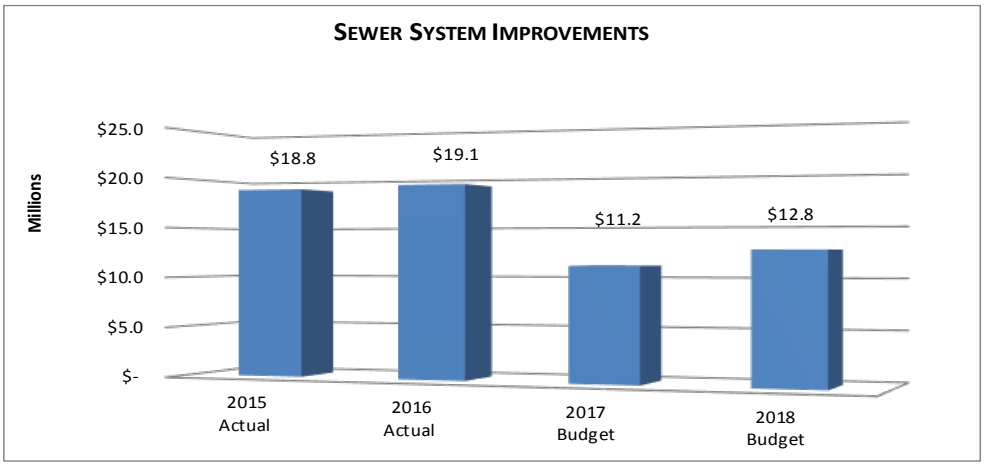
SEWER SYSTEM IMPROVEMENTS

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 3,025	$ 3,303	$ 3,676	$ 3,712
Contractual Services	18,721	18,838	12,264	10,519
Materials and Supplies	292	244	179	45
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**$ 22,038**	**$ 22,385**	**$ 16,119**	**$ 14,276**
Capitalized Cost	(3,161)	(3,239)	(4,905)	(1,517)
Intercenter Transfers	(40)	-	-	-
Total O&M	**$ 18,838**	**$ 19,146**	**$ 11,214**	**$ 12,759**
Capital Outlay	**$ 510**	**$ 3**	**$ 54**	**$ 2**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Capacity Assessment	$ 2,375	$ 2,242	$ 2,100	$ 1,320
Capacity Mgt O&M (CMOM)	6,580	5,591	2,473	4,289
Program Administration	7,458	9,818	9,411	6,592
Structural Sewer Assessment	5,626	4,733	2,136	2,075
O&M Before Capitalized Cost Total	**22,038**	**22,385**	**16,119**	**14,276**
Capitalized Cost	(3,161)	(3,239)	(4,905)	(1,517)
Intercenter Transfers	(40)	-	-	-
Grand Total	**$ 18,838**	**$ 19,146**	**$ 11,214**	**$ 12,759**

Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Program Administration	29.0	35.0	45.0	44.0
Structural Sewer Assessment	-	4.0	-	-
Total Full-Time Equivalent Positions	**29.0**	**39.0**	**45.0**	**44.0**

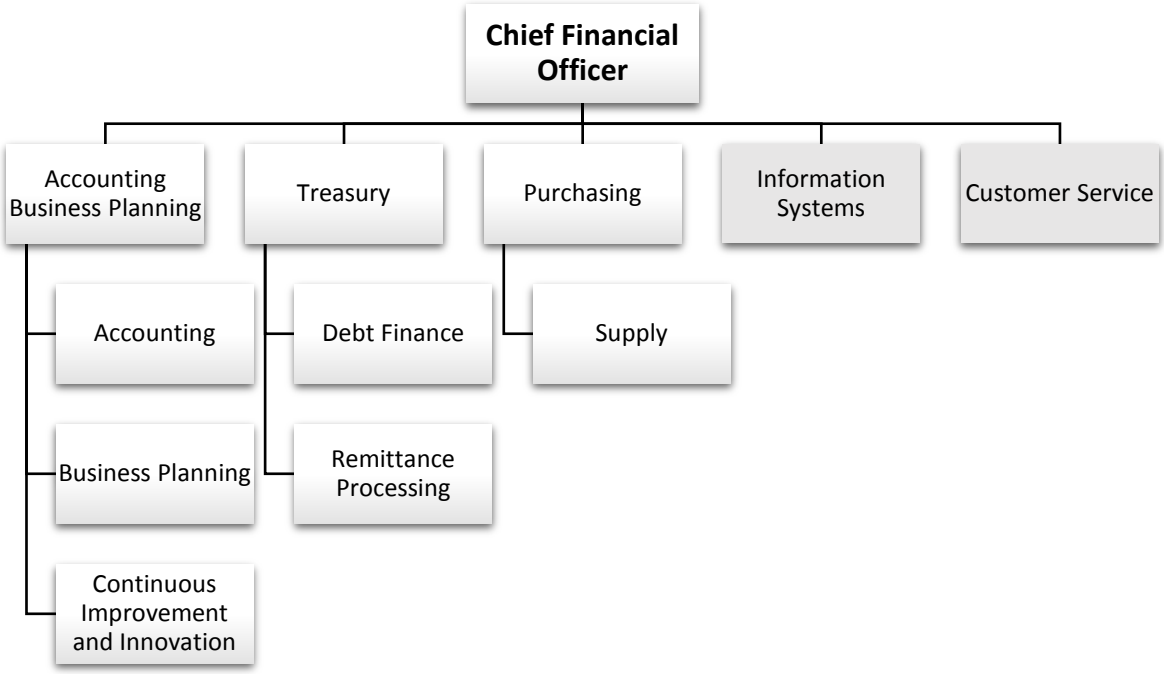


FINANCIAL SERVICES

The Financial Services Group is headed by the Sr. Vice President and Chief Financial Officer (CFO) and ensures the utility's efficient operation by effectively managing and reporting on the corporate financial position, ensuring financial compliance with current legal and regulatory requirements, and providing timely financial support, services and guidance to internal and external stakeholders. This is accomplished through the following functions:

- **Accounting & Business Planning:**
  - Accounting is responsible for accurate and timely accounting and financial reporting through the general accounting, property accounting, payroll, and accounts payable departments.
  - Business Planning ensures that SAWS' strategic objectives are financially supported through short and long range financial planning, developing and implementing the annual budget and developing rates sufficient to fund SAWS' capital and operating activities.
  - Continuous Improvement and Innovation conducts business performance reviews and process analysis across the organization to streamline operations, maximize budgetary resources, promote efficiencies, enhance customer service and implement innovative management practices.
- **Treasury** – Responsible for banking relationships, investment and debt management, and remittance (customer payment) processing.
- **Purchasing** – Manages the processing and contracting of all procurement requests for materials, supplies and services. Also manages the inventory control function.

The CFO also oversees the Information Systems and Customer Service groups.



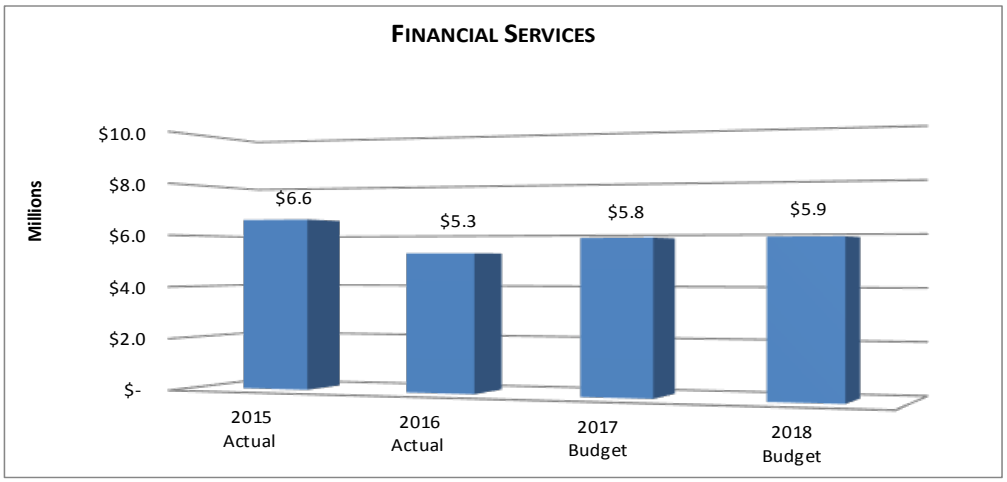
FINANCIAL SERVICES

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 5,491	$ 5,545	$ 5,825	$ 6,008
Contractual Services	484	456	727	578
Materials and Supplies	1,012	37	85	59
Other Charges	1,043	2	20	-
O&M Before Capitalized Cost Total	**$ 8,029**	**$ 6,040**	**$ 6,657**	**$ 6,645**
Capitalized Cost	(1,422)	(753)	(812)	(779)
Intercenter Transfers	-	-	-	-
Total O&M	**$ 6,608**	**$ 5,288**	**$ 5,845**	**$ 5,866**
Capital Outlay	**$ 2**	**$ 3**	**$ -**	**$ -**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Office of the CFO	$ 382	$ 395	$ 385	$ 394
Accounting and Business Planning	2,991	2,908	3,461	3,433
Purchasing and Supply	2,688	1,862	1,847	1,877
Treasury	1,969	875	964	941
O&M Before Capitalized Cost Total	**8,029**	**6,040**	**6,657**	**6,645**
Capitalized Cost	(1,422)	(753)	(812)	(779)
Intercenter Transfers	-	-	-	-
Grand Total	**$ 6,608**	**$ 5,288**	**$ 5,845**	**$ 5,866**

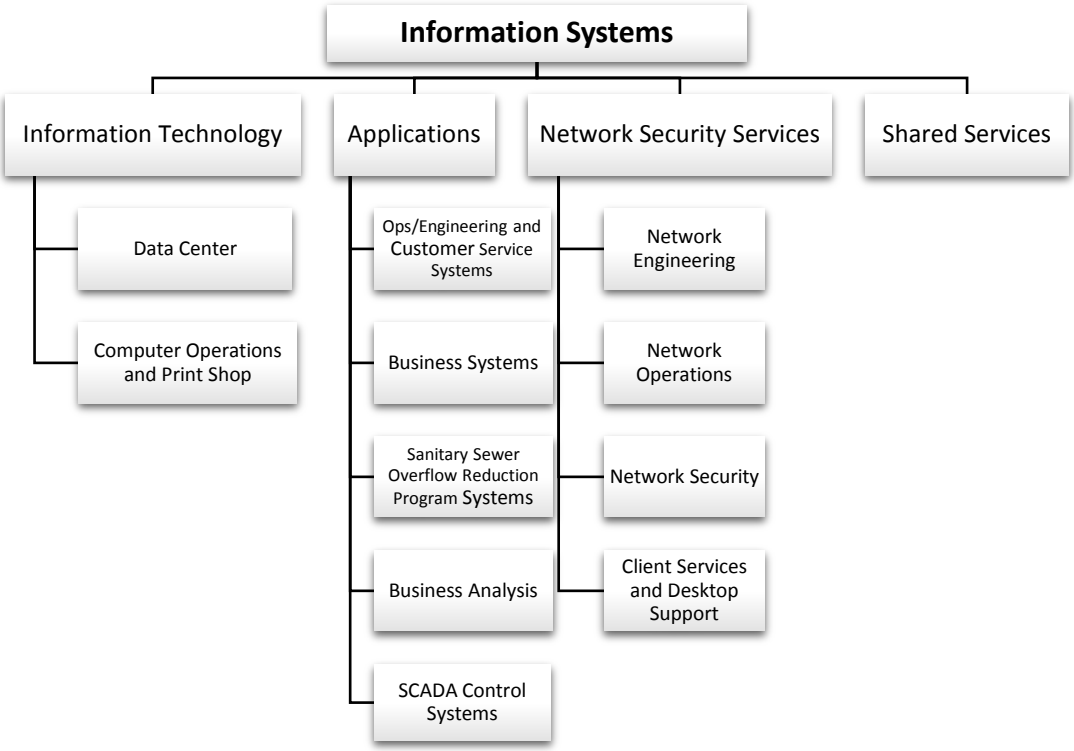
Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Office of the CFO	2.0	2.0	2.0	2.0
Accounting and Business Planning	30.5	31.5	32.5	33.5
Purchasing and Supply	24.0	24.0	24.0	24.0
Treasury	13.0	13.0	11.0	11.0
Total Full-Time Equivalent Positions	**69.5**	**70.5**	**69.5**	**70.5**



INFORMATION SYSTEMS

SAWS Information Systems Group delivers quality, secure, cost-effective applications and information technology services, which promote innovation to sustain growth while enabling SAWS to better serve our valued customers. Information Systems teams include:

- **Information Technology:**
  - *Data Center* – Responsible for all aspects of systems administration, database administration, systems software and hardware, the storage area network, backup and disaster recovery.
  - *Computer Operations and Print Shop* – Provides computer operations and bill printing services as well as copy services.
- **Applications -** Supports all functional areas of SAWS and responsible for SAWS software from requirements, analysis and design through programming, configuration, implementation, operations, and related upgrades and sustainability.
- **Network Security Services:**
  - *Network Engineering* – Provides network and internet services, including all aspects of network architecture and engineering, wired and wireless network infrastructure for SAWS facilities.
  - *Network Operations* – Manages telecommunication services including internet protocol (IP) telephony, teleconferencing, call center systems, interactive voice response systems, recording systems, digital radio systems and 911 systems.
  - *Network Security* – Responsible for developing, monitoring, and maintaining cyber security controls to protect the confidentiality, integrity, and availability of information systems assets.
  - *Client Services and Desktop Support* – Supports workstation and related peripheral devices across SAWS, including desktop support services as well as technology and software orders and requisitions.
- **Shared Services** - Supports SAWS' technology initiatives through project life-cycle management, metrics-based tracking, business process re-engineering, quality control/assurance, and organizational change management.



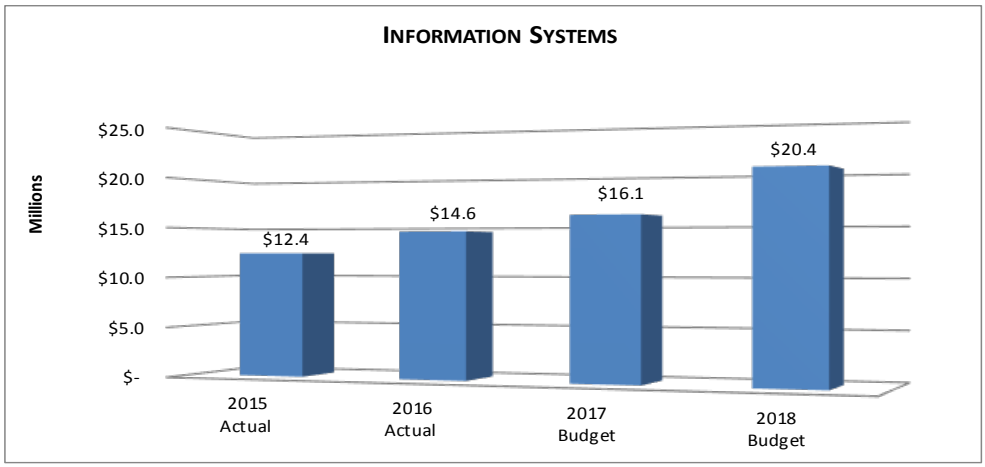
INFORMATION SYSTEMS

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 8,082	$ 8,327	$ 9,456	$ 9,474
Contractual Services	7,605	8,140	9,870	13,025
Materials and Supplies	405	473	568	527
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**$ 16,093**	**$ 16,940**	**$ 19,893**	**$ 23,026**
Capitalized Cost	(3,716)	(2,386)	(3,807)	(2,636)
Intercenter Transfers	26	-	-	-
Total O&M	**$ 12,402**	**$ 14,554**	**$ 16,087**	**$ 20,390**
Capital Outlay	**$ 1,999**	**$ 2,386**	**$ 3,903**	**$ 2,800**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Administration	$ 701	$ 634	$ 890	$ 862
Application Services	4,516	4,793	6,569	9,338
Control System Programming	594	567	579	571
Information Services Programs	568	698	690	700
Information Technology	9,715	10,248	11,165	11,554
O&M Before Capitalized Cost Total	**16,093**	**16,940**	**19,893**	**23,026**
Capitalized Cost	(3,716)	(2,386)	(3,807)	(2,636)
Intercenter Transfers	26	-	-	-
Grand Total	**$ 12,402**	**$ 14,554**	**$ 16,087**	**$ 20,390**

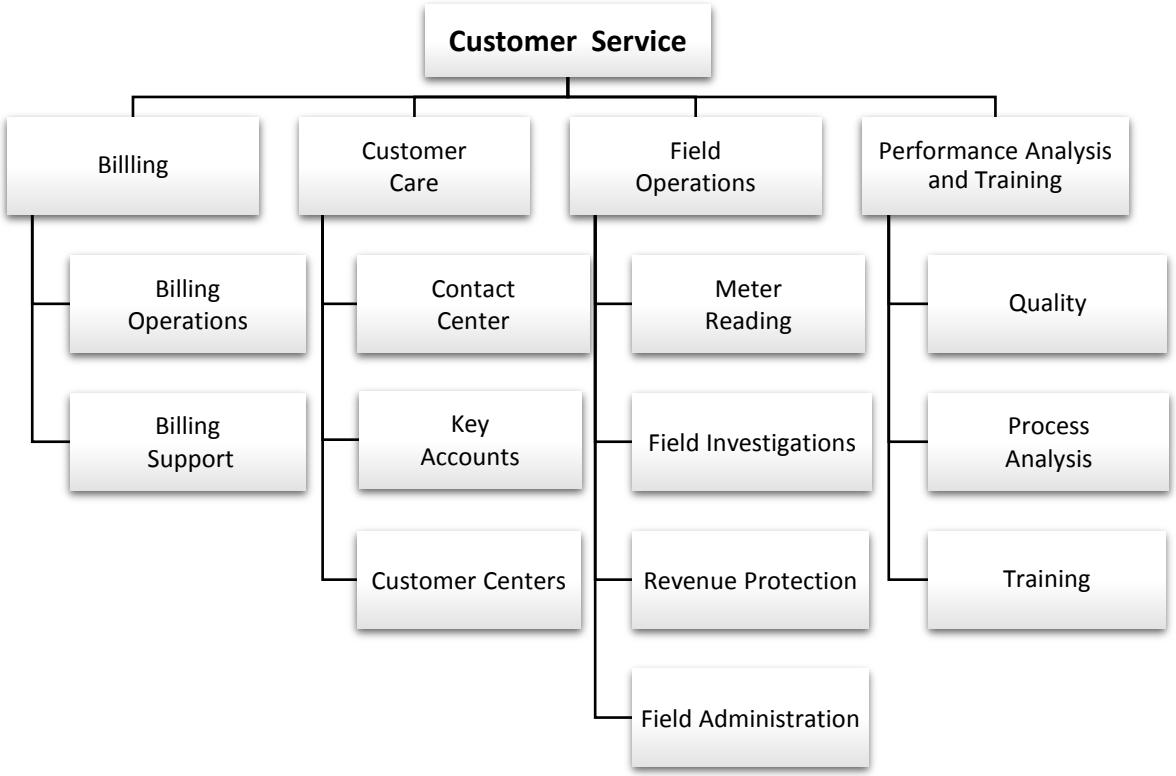
Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Administration	4.0	3.0	3.0	4.0
Application Services	38.0	41.0	42.0	36.0
Control System Programming	5.0	5.0	5.0	5.0
Information Services Programs	7.0	8.0	8.0	7.0
Information Technology	42.5	45.5	45.5	45.5
Total Full-Time Equivalent Positions	**96.5**	**102.5**	**103.5**	**97.5**



CUSTOMER SERVICE

The Customer Service Group is responsible for providing the highest level of service to SAWS customers at all times, responding in the most expedient and professional manner possible. This group is also responsible for the accurate and timely billing of SAWS customers and the maintenance of customer accounts.

- **Billing** – Reviews the billing process for accuracy of all SAWS bills printed daily and resolves customer service billing issues.
- **Customer Care** – Handles all inbound telephone customer inquiries regarding billing, account information, service problems and payments.
- **Field Operations** – Responsible for meter reading; service turn-on/turn-off requests; investigations, revenue protection, and collection of delinquent accounts.
- **Performance Analysis and Training –** Responsible for training and process improvements throughout Customer Service.



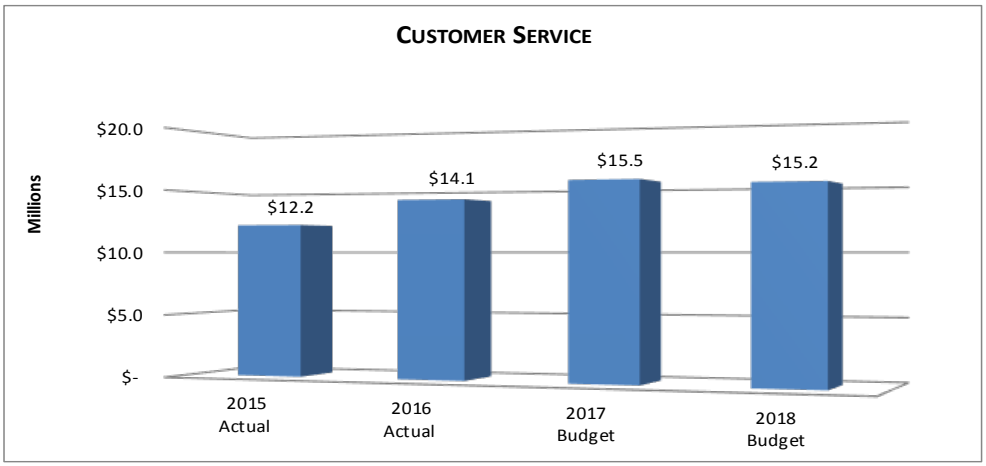
CUSTOMER SERVICE

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 11,211	$ 12,328	$ 13,244	$ 13,336
Contractual Services	832	1,573	2,247	1,803
Materials and Supplies	178	233	170	187
Other Charges	(3)	9	11	9
O&M Before Capitalized Cost Total	**$ 12,217**	**$ 14,143**	**$ 15,671**	**$ 15,334**
Capitalized Cost	(1)	(1)	(149)	(149)
Intercenter Transfers	(9)	-	-	-
Total O&M	**$ 12,207**	**$ 14,141**	**$ 15,522**	**$ 15,185**
Capital Outlay	**$ 6**	**$ 41**	**$ -**	**$ -**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Customer Service Administration	$ 808	$ 959	$ 567	$ 515
Billing	1,776	1,870	2,467	2,210
Customer Care	4,073	4,726	5,238	5,283
Field Operations	5,191	6,065	6,550	6,326
Performance Analysis and Training	369	523	850	1,000
O&M Before Capitalized Cost Total	**12,217**	**14,143**	**15,671**	**15,334**
Capitalized Cost	(1)	(1)	(149)	(149)
Intercenter Transfers	(9)	-	-	-
Grand Total	**$ 12,207**	**$ 14,141**	**$ 15,522**	**$ 15,185**

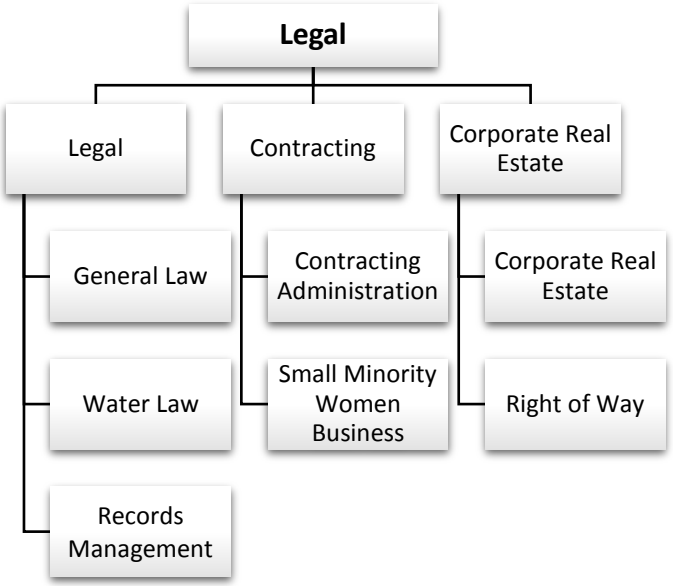
Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Customer Service Administration	10.0	9.0	2.0	3.0
Billing	31.5	32.0	44.0	40.0
Customer Care	70.0	81.0	99.5	101.5
Field Operations	95.0	100.0	104.0	98.0
Performance Analysis and Training	4.0	5.0	11.0	15.0
Total Full-Time Equivalent Positions	**210.5**	**227.0**	**260.5**	**257.5**



LEGAL

The Legal Group consists of the Legal Services Department, the Contracting Department, the Corporate Real Estate Department, and Records Management Department, whose functions are described below:

- **Legal Services**– Provides full service, in-house legal support to the SAWS' Board of Trustees, Executive Management and staff. Manages the activities of outside legal counsel. The range of in-house legal expertise includes water resources, labor and employment, litigation management, real estate, general transactional, environmental, and public law.
- **Contracting** – Manages the administration of all construction and professional services contracts and oversees administration of the SAWS Small, Minority and Women Owned Business Program.
- **Corporate Real Estate** – Responsible for property acquisitions, dispositions and lease management activities, and supports all construction and maintenance activities by obtaining all rights of entry and easements.
- **Records Management –** Manages all utility records in compliance with the Texas Local Government Records Act, Texas Public Information Act and best records management practices.



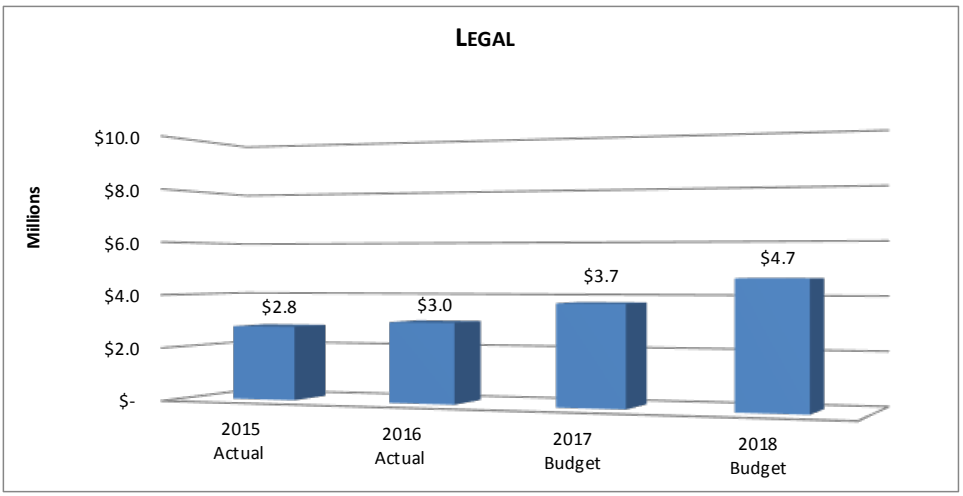
LEGAL

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 3,937	$ 4,024	$ 4,142	$ 4,148
Contractual Services	1,538	1,146	2,013	2,402
Materials and Supplies	21	25	25	25
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**$ 5,497**	**$ 5,195**	**$ 6,180**	**$ 6,575**
Capitalized Cost	(2,714)	(2,194)	(2,432)	(1,918)
Intercenter Transfers	-	-	-	-
Total O&M	**$ 2,783**	**$ 3,001**	**$ 3,748**	**$ 4,657**
Capital Outlay	**$ 2**	**$ 1**	**$ -**	**$ -**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Contracting	$ 1,404	$ 1,393	$ 1,547	$ 1,509
Corporate Real Estate	1,104	698	752	648
Legal	2,988	3,103	3,881	4,418
O&M Before Capitalized Cost Total	**5,497**	**5,195**	**6,180**	**6,575**
Capitalized Cost	(2,714)	(2,194)	(2,432)	(1,918)
Intercenter Transfers	-	-	-	-
Grand Total	**$ 2,783**	**$ 3,001**	**$ 3,748**	**$ 4,657**

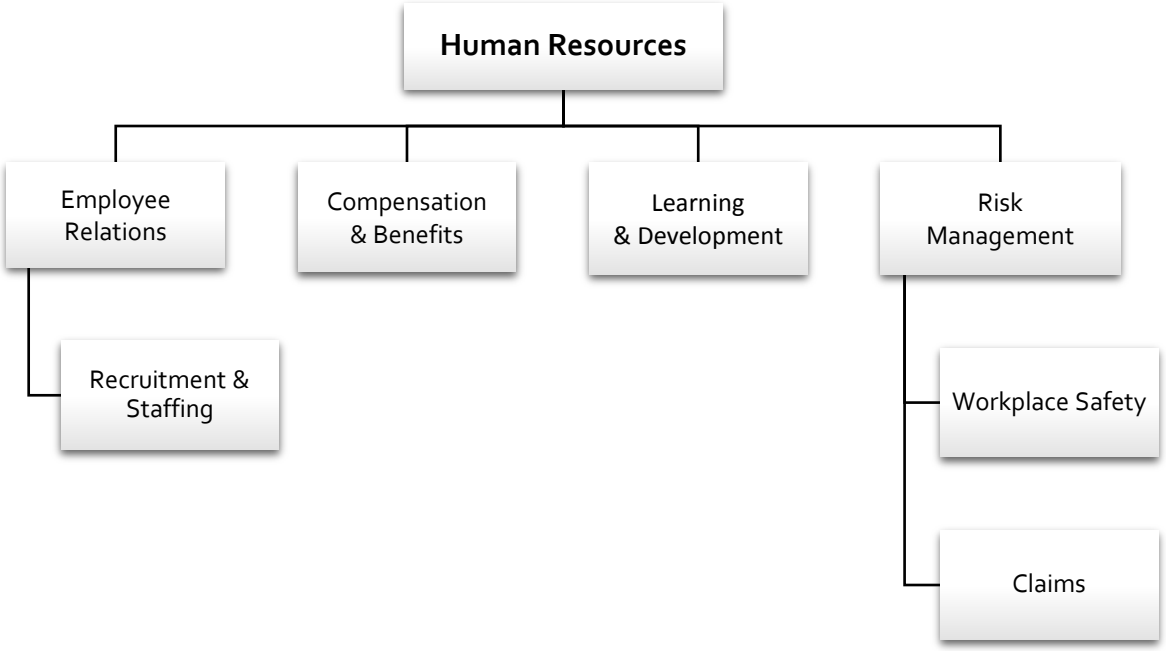
Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Contracting Department	22.5	19.5	17.0	16.0
Corporate Real Estate	8.0	8.0	8.0	7.0
Legal	11.5	14.5	14.5	15.5
Total Full-Time Equivalent Positions	**42.0**	**42.0**	**39.5**	**38.5**



HUMAN RESOURCES

The Human Resources Group is committed to attracting and retaining a workforce of qualified employees to achieve the goals and mission of SAWS. SAWS' core values of Excellence, Integrity, and Respect are supported by developing and implementing comprehensive, innovative and proactive programs in employee relations and development, total compensation, benefits and wellness, and risk management and workplace safety. The group promotes continuous personal and professional growth for employees by focusing on the following areas:

- **Employee Relations** – Provides proactive assistance to employees and supervisors regarding the interpretation and implementation of policies, procedures and directives. Provides direction and oversight for a variety of employment matters, including performance and disciplinary issues, investigations into formal complaints and other workplace concerns. Recruits employee resources required by all administrative and operational areas.
- **Learning & Development** – Develops and administers various employee development programs, including career development, leadership training, orientations, performance evaluation training and specialized, custom training.
- **Compensation & Benefits** – Develops and manages the employees' compensation, benefit and wellness programs, balancing competitiveness and cost efficiency for these plans and programs. Responsible for the plan development and fiscal accountability of all medical and prescription plans, pension programs, wellness initiatives, and oversees the administration of these plans and programs.
- **Risk Management** – Manages all facets of the comprehensive commercial insurance program including administration of premises risk assessments. Coordinates all workplace safety activities to ensure a safe environment for employees. Administers all workers compensation, casualty and subrogation claims.



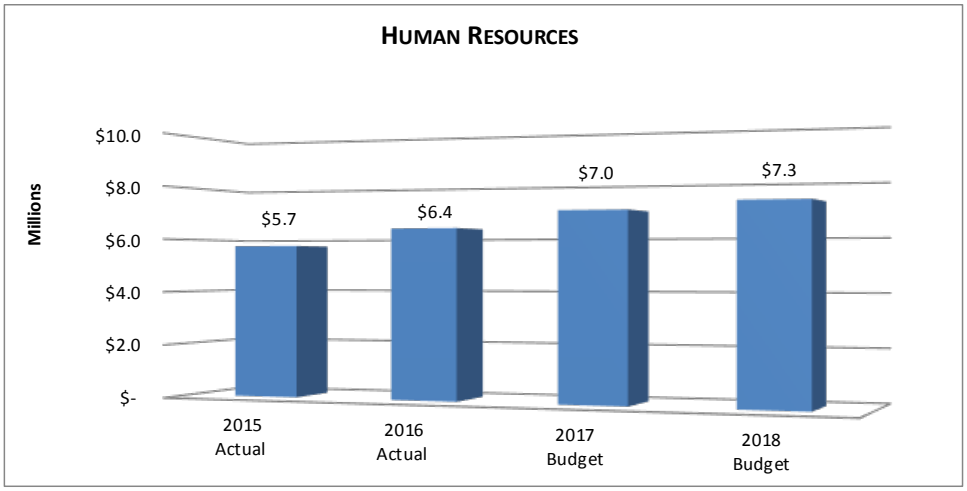
HUMAN RESOURCES

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 3,571	$ 3,784	$ 3,938	$ 4,270
Contractual Services	1,283	1,416	1,618	1,685
Materials and Supplies	62	72	52	52
Other Charges	1,017	1,167	1,448	1,334
O&M Before Capitalized Cost Total	**$ 5,932**	**$ 6,439**	**$ 7,056**	**$ 7,341**
Capitalized Cost	(193)	(68)	(71)	(63)
Intercenter Transfers	(1)	-	-	-
Total O&M	**$ 5,738**	**$ 6,372**	**$ 6,984**	**$ 7,278**
Capital Outlay	**$ 21**	**$ 7**	**$ -**	**$ -**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Human Resources	$ 3,362	$ 3,602	$ 3,810	$ 4,186
Risk Management	2,569	2,838	3,245	3,155
O&M Before Capitalized Cost Total	**5,932**	**6,439**	**7,056**	**7,341**
Capitalized Cost	(193)	(68)	(71)	(63)
Intercenter Transfers	(1)	-	-	-
Grand Total	**$ 5,738**	**$ 6,372**	**$ 6,984**	**$ 7,278**

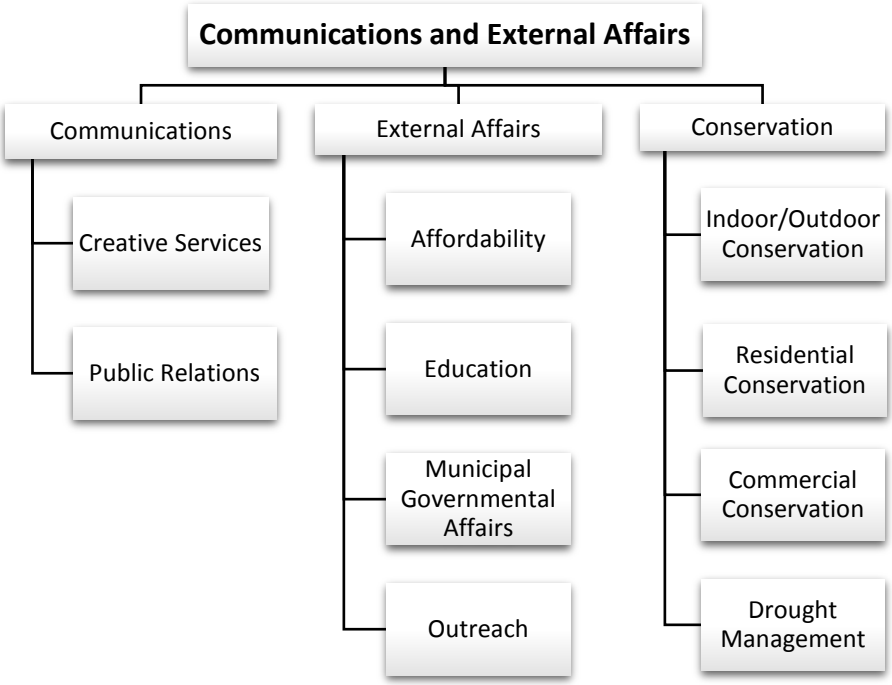
Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Human Resources	27.0	26.0	26.0	28.0
Risk Management	18.0	19.0	18.0	18.0
Total Full-Time Equivalent Positions	**45.0**	**45.0**	**44.0**	**46.0**



COMMUNICATIONS AND EXTERNAL AFFAIRS

The Communications and External Affairs Group engages in proactive strategic outreach and partnerships to inform and involve SAWS customers and stakeholders, driving the image and success of the organization. This is accomplished through:

- **Communications –** Manages and directs mass communications efforts through the following departments:
  - *Creative Services* – Develops the creative content for all internal and external communication efforts including newsletters, brochures, website and advertisements.
  - *Public Relations* – Manages news media relations for accuracy and appropriate messaging in news coverage concerning SAWS. Coordinates community events, manages social media content and directs advertising to promote awareness of SAWS programs, projects and image.
- **External Affairs** – Manages outreach efforts with customers, neighborhood and civic leaders, and San Antonio City Council members. Implements the SAWS Affordability Program that aids economically disadvantaged customers so that they have access to water and sewer services. Develops and conducts adult and youth educational programs to inform and promote water awareness in our community.
- **Conservation** – Delivers nationally recognized programs that achieve cost-effective water savings while enhancing quality of life. San Antonio's cheapest source of water is conservation – water we don't use. To help keep rates affordable, SAWS aggressively promotes efficient commercial and residential water use through education, outreach, incentives and drought ordinance rules.



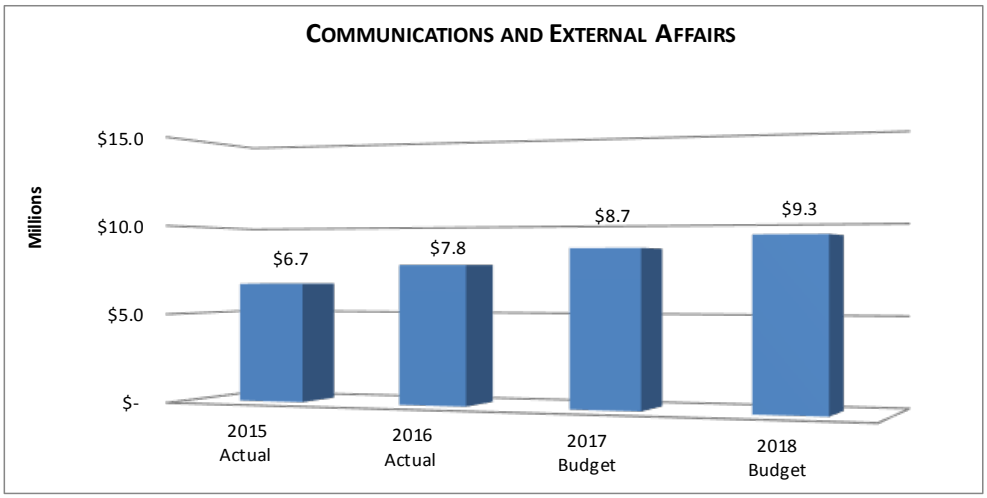
COMMUNICATIONS AND EXTERNAL AFFAIRS

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 3,584	$ 3,573	$ 3,796	$ 3,960
Contractual Services	3,373	4,056	5,040	5,316
Materials and Supplies	144	150	145	66
Other Charges	-	-	4	-
O&M Before Capitalized Cost Total	**$ 7,101**	**$ 7,780**	**$ 8,985**	**$ 9,342**
Capitalized Cost	(402)	-	(314)	-
Intercenter Transfers	2	-	-	-
Total O&M	**$ 6,701**	**$ 7,780**	**$ 8,671**	**$ 9,342**
Capital Outlay	**$ 21**	**$ 3**	**$ -**	**$ -**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Communications Administration	$ 398	$ 462	$ 478	$ 507
Communications	1,294	1,448	1,657	1,625
Conservation	4,156	4,453	5,510	5,618
External Affairs	1,253	1,417	1,340	1,592
O&M Before Capitalized Cost Total	**7,101**	**7,780**	**8,985**	**9,342**
Capitalized Cost	(402)	-	(314)	-
Intercenter Transfers	2	-	-	-
Grand Total	**$ 6,701**	**$ 7,780**	**$ 8,671**	**$ 9,342**

Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Communications Administration	2.5	4.0	4.0	4.0
Communications	12.5	12.5	10.0	9.0
Conservation Department	24.4	24.4	24.4	24.4
External Affairs	14.0	7.0	8.5	9.5
Total Full-Time Equivalent Positions	**53.4**	**47.9**	**46.9**	**46.9**



OTHER REQUIREMENTS

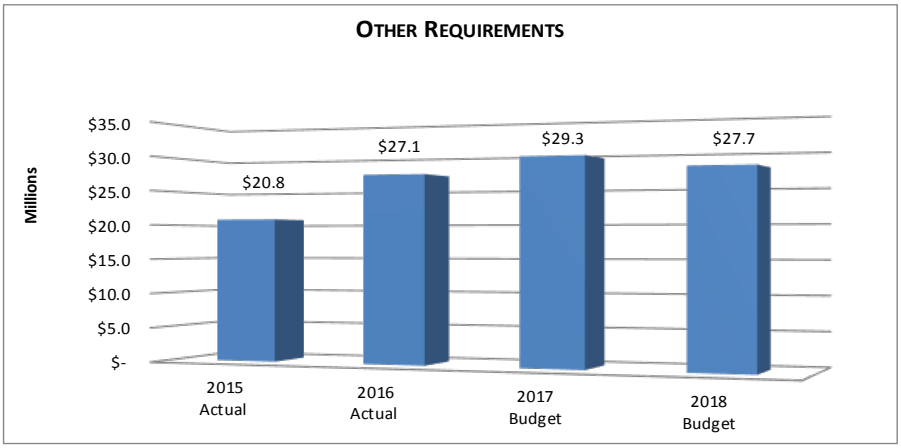
Other Requirements has been established to account for operations and maintenance expenses that relate to the overall organization and are difficult to associate with specific departments. These expenses affect all departments across the organization and are accumulated within this department to facilitate the budgeting and accounting process.

($ in thousands)

Expenditures by Type	2015 Actual	2016 Actual	2017 Budget	2018 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 17,279	$ 17,986	$ 21,588	$ 21,553
Contractual Services	751	652	336	330
Materials and Supplies	-	-	-	-
Other Charges	5,434	11,094	9,164	8,705
O&M Before Capitalized Cost Total	**$ 23,464**	**$ 29,732**	**$ 31,089**	**$ 30,588**
Capitalized Cost	(2,671)	(2,638)	(1,743)	(2,885)
Intercenter Transfers	-	-	-	-
Total O&M	**$ 20,793**	**$ 27,094**	**$ 29,346**	**$ 27,703**
Capital Outlay	**$ -**	**$ -**	**$ -**	**$ -**

Expenditures by Department	2015 Actual	2016 Actual	2017 Budget	2018 Budget
Other Requirements	$ 23,464	$ 29,732	$ 31,089	$ 30,588
O&M Before Capitalized Cost Total	**23,464**	**29,732**	**31,089**	**30,588**
Capitalized Cost	(2,671)	(2,638)	(1,743)	(2,885)
Intercenter Transfers	-	-	-	-
Grand Total	**$ 20,793**	**$ 27,094**	**$ 29,346**	**$ 27,703**

Full-time Equivalent Positions	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Other Requirements	6.0	3.0	7.0	5.0
Total Full-Time Equivalent Positions	**6.0**	**3.0**	**7.0**	**5.0**



FULL TIME EQUIVALENT POSITIONS

The 2018 Budget includes funding for 1,878.4 full-time equivalent (FTE) positions. This represents an increase of 9.5 authorized FTE positions from the 1,868.9 FTE positions budgeted in 2017. The primary driver in the increased number of FTE's is the addition of positions to the Engineering and Construction Group to support the growing capital program.

The following table shows the distribution of funded FTE positions within each SAWS organizational unit authorized in each budget year from 2015 through 2018. Periodically, FTE positions and resources are reallocated among different areas of the organization in order to better meet changing needs. In such instances, where possible, prior year authorized FTE position levels have been restated, as reflected in the table shown below, to be consistent with the current year organizational structure.

	2015 Budget	2016 Budget	2017 Budget	2018 Budget
Board of Trustees and Pres/CEO	10.0	9.0	10.0	10.0
Engineering and Construction	191.5	183.0	178.5	193.5
Water Resources and Governmental Relations	14.0	21.0	19.0	24.0
Operations	104.0	112.0	121.0	118.0
Distribution and Collection	596.0	611.0	597.0	601.0
Production and Treatment	316.1	317.1	327.5	326.0
Sewer System Improvements	29.0	39.0	45.0	44.0
Financial Services	69.5	70.5	69.5	70.5
Information Systems	96.5	102.5	103.5	97.5
Customer Service	210.5	227.0	260.5	257.5
Legal	42.0	42.0	39.5	38.5
Human Resources	45.0	45.0	44.0	46.0
Communications and External Affairs	53.4	47.9	46.9	46.9
Other Requirements	6.0	3.0	7.0	5.0
Grand	**1,783.5**	**1,830.0**	**1,868.9**	**1,878.4**

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Capital Improvement Program

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CAPITAL IMPROVEMENT PROGRAM

The Capital Improvement Program (CIP) is a planning and budgeting tool that provides information about SAWS infrastructure needs. It identifies requirements for sustaining, restoring and modernizing the facilities and infrastructure that support water supply and delivery, wastewater collection and treatment, and chilled water requirements in the SAWS service area. It also prioritizes and schedules projects for funding and execution through a multi-year plan.

The CIP supports four core businesses: Water Supply, Water Delivery, Wastewater and Chilled Water. Water Supply CIP consists of projects to develop long term water supplies from surface and groundwater sources, including any transmission pipelines required to deliver these water supplies to SAWS service area. Water Delivery provides for the expansion, improvement and replacement of infrastructure required to produce and deliver water to the customer while wastewater CIP focuses on infrastructure for the collection and treatment of wastewater. Chilled Water CIP provides for the expansion, improvement and replacement of infrastructure required to generate and deliver chilled water to customers in the downtown and Port San Antonio areas.

The 2018 program totals $391.4 million and is summarized in the table below.

($ in millions)	Water Supply	Water Delivery	Wastewater	Chilled Water	Total
Sources of Funds					
System Revenues	$ 14.6	$ 33.0	$ 39.9	$ -	$ 87.5
Capital Recovery Fees	10.0	10.0	15.0	-	35.0
Debt Proceeds	20.0	116.2	132.7	-	268.9
Total Sources of Funds	**$ 44.6**	**$ 159.2**	**$ 187.6**	**$ -**	**$ 391.4**
Uses of Funds					
Corporate	-	4.8	6.6	-	11.4
Water Resources	44.6				44.6
Governmental		22.1	24.1		46.2
Mains - New		7.5	5.4		12.9
Main Replacements		40.7	140.5		181.2
Production		84.1			84.1
Treatment			11.0		11.0
Chilled Water				-	-
Total Uses of Funds	**$ 44.6**	**$ 159.2**	**$ 187.6**	**$ -**	**$ 391.4**

The 2018 Water Supply program totals $44.6 million and includes $37.1 million for the final phase of the Water Resources Integration Pipeline and fully integrate the H_2Oaks water supplies into the SAWS system.

The 2018 Water Delivery program totals $159.2 million for production facilities upgrades, replacements and expansion as well as 27 miles of water main replacement. The 2018 program reflects SAWS' commitment to improve the water main replacement rate and to increase investment in water infrastructure. The level of investment in Water Delivery infrastructure for 2018 is more than double SAWS average annual investment in Water Delivery infrastructure over the last five years.

The 2018 Wastewater program totals $187.6 million and represents the largest single year investment in SAWS wastewater infrastructure. The vast majority of the 2018 Wastewater program focuses on the rehabilitation and

replacement of wastewater mains identified through the SAWS Sanitary Sewer Overflow Reduction Program (SSORP). These projects have been prioritized and scheduled over the next five years to meet the requirements of SAWS Consent Decree with the federal government.

The overall funding split for the 2018 water production and delivery and the wastewater collection and treatment program is 76% repairs and replacements and 24% additional capacity to support new growth and development.

SIGNIFICANT NON-ROUTINE CAPITAL EXPENDITURES

The majority of SAWS' CIP projects provide for routine, ongoing expenditures for major repair or replacement of infrastructure. Projects that are typically "one time" in nature and involve the development of a new water supply, the construction of new water production or wastewater treatment facilities or the acquisition of new technology that enhances service delivery could be considered significant non-routine capital expenditures. The 2018 CIP includes the Water Resources Integration Pipeline Phase II which is considered non-routine. This transmission pipeline, when completed in 2021, will be used to convey water from SAWS ASR, Carrizo and brackish groundwater desalination programs located at the H_2Oaks facility in southeast Bexar County to the Anderson pump station western Bexar County at Highway 151 and Loop 1604. The total cost of Phase II of the pipeline is expected to be $103 million.

2018 Capital Improvement Plan Summary

Core Business	*CIP Category / Project Title*	*Phase*	*Cost Estimate*	*Programmed Amount (1)*
Water Delivery				
Corporate				
	General Legal Services	Acquisition	$ 25,000	$ 30,326
	Owner Controlled Construction Changes	Construction	3,264,715	3,356,127
	Automated Metering Infrastructure Pilot Project	Design	1,200,000	1,455,648
Corporate Total			**4,489,715**	**4,842,101**
Mains - New				
	16-inch water main along Old Fredericksburg Rd. from Lost C	Construction	850,000	1,031,084
	Micron to Anderson Water Main Extension Phase 2	Construction	1,750,000	2,122,820
	Highway 90 and General McMullen Pressure Zone Integration	Design	350,000	424,564
	Water Main Oversizing	Construction	2,750,000	3,335,860
	Whispering Wind Dr. - Mogford to Riptide Water Main Replac	Construction	450,000	545,868
Mains - New Total			**6,150,000**	**7,460,196**
Mains - Replacement				
	Boerne Stage Road Water Main Replacement	Construction	4,000,000	4,852,160
	Customer Water Meter Replacement	Construction	1,000,000	1,213,040
	Governmental Mains	Construction	18,200,000	22,077,328
	Open Cut Water Contract	Construction	1,500,000	1,819,560
	Pleasanton Road Water Main Replacement at Hume Road	Construction	6,900,000	8,369,976
	Turtle Creek #3 to Medical Center Transmission Main	Design	1,000,000	1,213,040
	Valves, Services and Meter Replacements	Construction	9,500,000	11,523,880
	Vance Jackson Water Main Replacement	Construction	3,500,000	4,245,640
	Water Main Condition Inspection & Replacement	Design/ Construction	4,000,000	4,852,160
	Water Main Dead End Main Flushing	Construction	1,000,000	1,213,040
	Water Main Replacement Geotechnical Services Contract	Design	200,000	242,608
	Water Main Replacement Work Order Engineering Contract	Design	950,000	1,152,388
Mains - Replacement Total			**51,750,000**	**62,774,820**
Production				
	Broadband Access Points & Programmable Logic Controllers	Design	750,000	909,780
	DeZavala Storage Tank	Acquisition	1,237,000	1,500,530
	Dietrich Storage Tank	Design	625,000	758,150
	Hunt Lane Elevated Storage Tank	Construction	6,300,000	7,642,152
	LaRosa Pump Station Upgrade	Construction	5,500,000	6,671,720
	Mission Additional Well	Construction	2,000,000	2,426,080
	Production Control System Upgrade	Construction	7,250,000	8,794,540
	Production Facilities Construction Work Order Contract	Construction	250,000	303,260
	Production Facilities Engineering, Geotechnical, and Surveyir	Design	450,000	545,868
	Pump Station Rehabilitation Phase 11 – Wurzbach	Construction	18,000,000	21,834,720
	Pump Station Rehabilitation Phase 4b – Basin	Construction	17,200,000	20,864,288
	Turtle Creek No. 3 Well Field, GST, Well Pumps, HSPs	Design	1,750,000	2,122,820
	Water Production Facilities Disinfection System Upgrades Ph	Construction	4,700,000	5,701,288
	Zarzamora Pump Station Upgrade	Construction	3,312,000	4,017,588
Production Total			**69,324,000**	**84,092,785**
Water Delivery Total			**131,713,715**	**159,169,902**

(1) Includes capitalized internal costs (overhead) and projected inflation.

2018 Capital Improvement Plan Summary

CIP Category / Project Title	Phase	Cost Estimate	Programmed Amount (1)
Wastewater			
Corporate			
General Legal Services	Acquisition	$ 95,000	$ 111,332
Owner Controlled Construction Changes	Construction	6,277,579	6,453,351
Corporate Total		**6,372,579**	**6,564,684**
Mains - New			
Mission del Lago 27" Outfall Oversize	Construction	3,600,000	4,218,912
Sewer Main Oversizing	Construction	1,000,000	1,171,920
Mains - New Total		**4,600,000**	**5,390,832**
Mains - Replacement			
C-30 San Joaquin to General McMullen	Construction	1,193,000	1,398,101
C-5: Culebra and Castroville to Laredo and C28: Zarzamora C	Construction	3,400,000	3,984,528
E-19 Seguin Road to Nacogdoches Road Phase 2	Construction	32,500,000	38,087,400
Governmental Mains	Construction	20,600,000	24,141,552
Main Replacements - Sewer - SAWS Crews	Construction	3,500,000	4,101,720
Martinez Creek: Perez St. to W. Huisache Ave	Construction	16,214,321	19,001,887
Sewer Laterals	Construction	4,200,000	4,922,064
Small and Large Diameter Condition Remedial Measures	Construction	40,000,000	46,876,800
Wastewater Main Replacement Geotechnical Services Contra	Design	200,000	234,384
Wastewater Main Replacement Work Order Engineering Cont	Design	4,000,000	4,687,680
Western Watershed Emergency Sewer Relief Project (W-52 I	Construction	13,000,000	15,234,960
E-4 Bulverde Area Sewer Capacity Relief and Storage at Loop	Design	1,500,000	1,757,880
E-74 Rosillo Creek Sewer Capacity Storage South of IH-10	Acquisition	200,000	234,384
Mains - Replacement Total		**140,507,321**	**164,663,340**
Treatment			
Dos Rios Chlorine Upgrades	Construction	4,000,000	4,687,680
Dos Rios WRC Sludge Thickening Facility Expansion	Construction	4,000,000	4,687,680
Treatment Facilities Construction Work Order Contract	Construction	500,000	585,960
Treatment Facilities Engineering, Geotechnical, and Surveyin	Design	900,000	1,054,728
Treatment Total		**9,400,000**	**11,016,048**
Wastewater Total		**160,879,900**	**187,634,903**
Water Resources			
Water Supply			
General Legal Services	Acquisition	310,000	344,174
Desalination Additional Well	Construction	1,500,000	1,665,360
Desalination Raw Water Filtration	Construction	1,000,000	1,110,240
Water Resource Integration Pipeline and Pump Stations Phas	Construction	33,390,000	37,070,914
Vista Ridge Integration SCADA & Control Coordination	Design	2,200,000	2,442,528
Pump Station Rehabilitation Phase 5 - Artesia	Design	1,300,000	1,443,312
Water Supply Total		**39,700,000**	**44,076,528**
Recycled Water			
Recycled Water Customer Lines	Construction	200,000	257,000
Recycled Water Governmental Adjustments	Construction	200,000	257,000
Recycled Water Total		**400,000**	**514,000**
Water Resources Total		**40,100,000**	**44,590,528**
Grand Total		**$ 332,693,615**	**$ 391,395,334**

(1) Includes capitalized internal costs (overhead) and projected inflation.

CIP Project Data

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Water Delivery

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SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00158
Project:	General Legal Services - WD - 2018
Programmed Amount:	$30,326
Core Business:	WD - Water Delivery
Category:	Corporate WD
Phase:	Acquisition
Council District:	System Wide

Description and Scope:

Specialized legal support is required for critical projects.

Justification:

External legal support is sought only when there is insufficient internal legal staff to support the effort, or specialized legal expertise is required.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.	2018	2018	2018
	$25,000	$0	$0

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10722
Project:	Water Delivery OCCC 2018
Programmed Amount:	$3,356,127
Core Business:	WD - Water Delivery
Category:	Corporate WD
Phase:	Construction
Council District:	System Wide

Description and Scope:

Funds for Owner Controlled Construction Changes.

Justification:

Changes occur on construction projects, and must be approved by SAWS Board of Trustees if over $100,000.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$0	$3,264,715

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10811
Project:	Automated Metering Infrastructure (AMI)
Programmed Amount:	$1,455,648
Core Business:	WD - Water Delivery
Category:	Corporate WD
Phase:	Design
Council District:	System Wide

Description and Scope:

2018 capital funds will be used in connection with a pilot program designed to test various AMI technical components so that a selection can be made that offers SAWS the most robust and flexible alternative to advance toward the features and functions of a smart utility. The future cost and timeline associated with a full rollout of AMI would be developed based on the results of the pilot program.

Justification:

AMI could give SAWS the ability to conduct pressure analysis and manage leak alert events as well as proactively monitor daily water consumption to enhance conservation which could significantly aid in addressing residential water loss. AMI would benefit customers by providing real time alerts on usage as well as personalized education on household water use while providing custom conservation advice based on analysis of use. Customer will have the advantage of real time usage and bill information as opposed to the current system which relies on billing cycle delays.

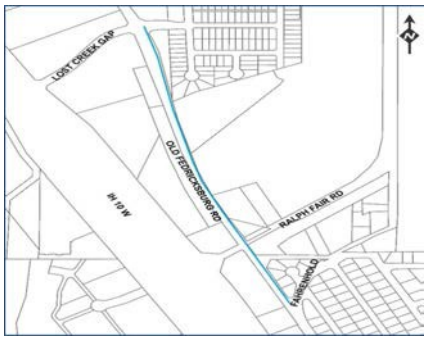
Transitioning to AMI is expected to enhance our ability to improve conservation efforts, operational efficiency, provide superior rate payer service as well as offer cost saving opportunities.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	TBD
	$0	$1,200,000	TBD

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10296
Project:	16-inch Water Main Along Old Fredericksburg Rd. from Lost Creek Gap to Fahrenthold
Programmed Amount:	$1,031,084
Core Business:	WD - Water Delivery
Category:	Mains New - Water
Phase:	Construction
Council District:	OCL



Description and Scope:

Install approximately 3100 feet of 16-inch water main along the east side of IH-10 to fill a gap in the Pressure Zone 10 infrastructure.

Justification:

SAWS experienced several main breaks in 2015 and 2016 that caused over 2000 residential and commercial customers to be cut off from water service. This connection will provide an option for continuing service to this area as well as provide much needed redundancy and additional capacity for water transfer between Pressure Zones 11 and 12.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$100,000	$850,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00126
Project:	Micron 48-inch Water Main Extension to Anderson Tank Phase 2
Programmed Amount:	$2,122,820
Core Business:	WD - Water Delivery
Category:	Mains New - Water
Phase:	Construction
Council District:	District 06

Description and Scope:

Construction was halted on the final section of the water main connecting Micron Pump Station to Anderson Pump Station, because of the identification of a possible endangered species. A 2000 foot segment of pipe remains that must be installed to complete this interconnect. Construction is planned for 2018. This project was planned for construction in 2017 but the required permits were not able to be secured in time to advertise and construct the project in 2017. The permits are expected to be secured in the first quarter of 2018.

Justification:

This interconnection between two critical pump stations that support the Northwestern sector of the county (Sea World to IH-10 area) provides critical redundancy to a highly populated and fast growing area of the city.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2010	2018
	$0	$28,430	$1,750,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10698
Project:	Highway 90 and General McMullen Pressure Zone Integration
Programmed Amount:	$424,564
Core Business:	WD - Water Delivery
Category:	Mains New - Water
Phase:	Design
Council District:	District 04, District 05

Description and Scope:

The primary water source for pressure zone 823 is the 21st Street pump station, which is in poor condition. If this station were to fail, about 4,800 customers in this pressure zone would be out of service. The high risk of failure of this pump station resulted in temporary connections being made through small diameter mains from Pressure Zone 828. This project makes multiple permanent connections to larger diameter mains to provide customers from PZ 823 with a more reliable water sources. By making these connections, SAWS will be able to decommission the 21st Street pump station; avoiding costly improvements at that pump station.

Approximately 1,200 ft of new main will be installed and 9,300 ft will be replaced. Approximately 4,800 customers will move from PZ 823 to PZ 828.

This project will design the installation of 12-inch water lines replacing the existing 6-inch water line along Brady Boulevard, connecting the existing 12-inch on Cupples Road to the existing 20-inch on Barclay Street. Two 12-inch water lines along General McMullen Drive connecting the existing 12-inch on Patton Boulevard to the existing 12-inch on General McMullen near Queretaro Street; a second new 12-inch water line connecting the existing 12-inch on Morelia to the existing 12-inch on Castroville Road. A new 12-inch water line connecting the existing 8-inch on Frio City Road to the existing 12-inch on Jennings Ave.

Justification:

Currently, PZ 823 operates completely independently of PZ 828. To simplify operations and to provide the PZ 823 area with a more reliable supply, it is recommended to connect the two pressure zones by 2018. This project is in the 2017 Water Infrastructure Plan.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2019
	$0	$350,000	$3,500,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10662
Project:	Water Main Oversizing 2018 - SAWS
Programmed Amount:	$3,335,860
Core Business:	WD - Water Delivery
Category:	Mains New - Water
Phase:	Construction
Council District:	System Wide

Description and Scope:

Represents SAWS proportionate share of the cost of mains which are necessary to serve anticipated growth but are larger than the size main required by a developer customer or single customer. Developers are required to build necessary offsite infrastructure to meet the needs of their development. When growth is projected in adjacent tracts, SAWS contributes money to increase the size of the mains to serve the additional growth. Sharing in the cost is beneficial to both SAWS and the developer and prevents the construction of parallel smaller sized mains.

Justification:

Oversizing infrastucture is a cost effective way to meet the needs of growth. It is funded by impact fees collected from new development.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$2,750,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10298
Project:	Whispering Wind Dr. - Mogford to Riptide Water Main Replacement
Programmed Amount:	$545,868
Core Business:	WD - Water Delivery
Category:	Mains New - Water
Phase:	Construction
Council District:	OCL

Description and Scope:

Install approximately 4,500 feet of 12-inch water main that will replace an existing undersized 8-inch water main to improve water flow and pressure throughout the Whispering Winds neighborhood in the southern part of the service area.

Justification:

This project is necessary due to numerous main breaks in and around this area caused by undersized water mains and increasing demand. The main breaks have caused several boil water notices in this area.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$45,000	$450,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10833
Project:	Boerne Stage Water Main Replacement
Programmed Amount:	$4,852,160
Core Business:	WD - Water Delivery
Category:	Main Replacement - Water
Phase:	Construction
Council District:	OCL

Description and Scope:

This project will design and construct the replacement of up to 14,000 LF of 24" PVC water main on Boerne Stage Road.

Justification:

This main was installed about 2007 and there have been three main breaks since installation.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$500,000	$4,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00198
Project:	SAWS Customer Water Meter Replacements - 2018
Programmed Amount:	$1,213,040
Core Business:	WD - Water Delivery
Category:	Main Replacement - Water
Phase:	Construction
Council District:	System Wide

Description and Scope:

This project consists of replacing approximately 15,000 water meters throughout the SAWS service area, targeting aging meters. As meters ages the registers tend to slow down and under-register flow. This can result in under billing the customer for water usage. Replacement of older water meters is necessary to ensure that flow is accurately recorded for billing purposes and to accurately account for water usage. SAWS has over 574,000 small meters (1.5-inch or less) in the system; replacement of meters is an annual requirement.

Justification:

Replacement of meters will increase billing accuracy and enable SAWS to better account for water usage. This project is an important component of SAWS initiative to reduce non-revenue water.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$1,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00129
Project:	Governmental Water - SAWS - 2018
Programmed Amount:	$22,077,328
Core Business:	WD - Water Delivery
Category:	Governmental Water
Phase:	Construction
Council District:	System Wide

Description and Scope:

The governmental program consists of projects implemented in conjunction with other government agencies infrastructure work. The program includes replacement of water mains in poor condition, adjustment of water mains whose existing alignment conflicts with proposed new street alignment, and installation of new water mains needed to provide additional capacity.

SAWS participates in the Utility Coordination Council, and jointly plans and reviews infrastructure improvements with COSA, Bexar County, Texas Department of Transportation (TXDOT), CPS Energy, AT&T, and other agencies, to maximize effectiveness of public infrastructure.

Justification:

Replacing and/or adjusting aging infrastructure in conjunction with other agencies planned street work is the most cost effective approach to infrastructure management. It minimizes the cost of construction and minimizes the potential of utility failure under a new street.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$18,200,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00213
Project:	Open Cut Water Contract - SAWS - 2018
Programmed Amount:	$1,819,560
Core Business:	WD - Water Delivery
Category:	Main Replacement - Water
Phase:	Construction
Council District:	System Wide

Description and Scope:

This annual contract provides for contractor replacement of water mains that cannot be repaired quickly and economically by SAWS crews.

Justification:

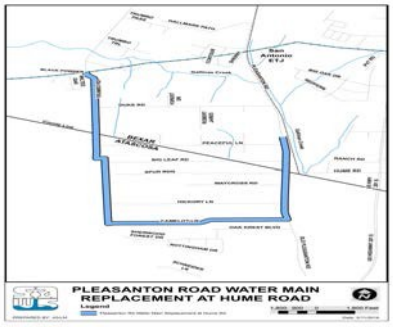
Replacement of mains is necessary to restore and maintain water service in areas of multiple failures.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$1,500,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00461
Project:	Pleasanton Road Water Main Replacement at Hume Road
Programmed Amount:	$8,369,976
Core Business:	WD - Water Delivery
Category:	Main Replacement - Water
Phase:	Construction
Council District:	OCL



Description and Scope:

This project includes replacing 5.7 miles of existing water main of various sizes (i.e. 4, 6, and 8-inch diameter water mains) found within the Hume Road, Pleasanton Road, and Bexar County right-of-way and other local streets. The project site consists of various locations which require water main replacements due to the inadequate water main sizes found in these areas. The project scope of work consists of replacing under-sized water mains, fire hydrants, air-release valves and any other water related infrastructure. This project also includes bore and casing, replacement of existing driveways, connecting streets, site restoration, and other related work.

Justification:

This project was requested by Master Planning and SAWS Distribution and Collection due to continuing main breaks occurring within this area which have resulted in boil water notices.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2016	2018
	$0	$0	$6,900,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00079
Project:	Turtle Creek No 3 Pump Station to Medical Center Transmission Main
Programmed Amount:	$1,213,040
Core Business:	WD - Water Delivery
Category:	Mains New - Water
Phase:	Design
Council District:	District 08

Description and Scope:

This project will provide for a new 1.5 mile transmission main to convey water from the proposed Turtle Creek #3 primary pump station to the Medical Center area. It will provide an additional source of water, and much needed redundancy to this highly critical area.

Justification:

SAWS Master Planning determined that the best way to convey water to the higher elevations in the northwest area is through the Anderson and University pump stations. The large main from Anderson to University is already in place. This new pipeline with provide critical redundancy to this area.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2015	2018
	$0	$0	$1,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00203
Project:	Valves Services and Meter Replacements
Programmed Amount:	$11,523,880
Core Business:	WD - Water Delivery
Category:	Main Replacement - Water
Phase:	Construction
Council District:	System Wide

Description and Scope:

This project funds the replacement of water mains, valves, hydrants, and meters within the SAWS distribution system by either SAWS crews or third-party contractors. When infrastructure fails, it is evaluated to determine the best repair method. When replacement is necessary, it is evaluated to determine whether replacement by SAWS crews or a contractor would be more effective and efficient.

Justification:

Replacement work is necessary to restore service and is more cost effetive than repair.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$9,500,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10655
Project:	Vance Jackson - IH10 to Loop 410
Programmed Amount:	$4,245,640
Core Business:	WD - Water Delivery
Category:	Main Replacement - Water
Phase:	Design
Council District:	District 01

Description and Scope:

This project will replace nearly 10,000 feet of 8-inch and 12-inch cast iron and 6-inch ductile iron water mains with 8, 12, and 16-inch C-900 PVC water main along Vance Jackson Road, from IH-10 through Loop 410. This main is located in Pressure Zone 5, with some sections in Pressure Zone 4.

Justification:

Eight main breaks have occurred since 2009, resulting in service disruptions and repeated repair costs including street restoration. Other main breaks in the area may also be attributed to the current condition of this main. Nine schools and one hospital rely on this water main for service.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$0	$3,500,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10694
Project:	Water Main Condition Inspection & Replacement
Programmed Amount:	$4,852,160
Core Business:	WD - Water Delivery
Category:	Main Replacement - Water
Phase:	Design & Construction
Council District:	System Wide

Description and Scope:

This project provides funds for the rehabilitation or replacement of water mains identified through the use of assessment technology. The water mains included in this project will vary in size and location.

Justification:

Mains found to require repair, rehabilitation, or replacement are necessary to provide and maintain water service.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$2,000,000	$2,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10793
Project:	Water Main Dead End Main Flushing
Programmed Amount:	$1,213,040
Core Business:	WD - Water Delivery
Category:	Main Replacement - Water
Phase:	Construction
Council District:	System Wide

Description and Scope:

This project is a required program to meet Texas Commission on Environmental Quality (TCEQ) regulations, 30 TAC Chapter 290.46 There are approximately 9,600 dead end mains in the SAWS distribution system. Approximately 50% of these points (usually blow-offs) are considered inoperable or unlocatable. This project will provide funding for the rehabilitation and replacement of inoperable blow-offs at a rate of 90 per year. This project also includes funding for the elimination of certain dead end mains, by looping them where practical. This is highly recommended by TCEQ when they evaluate dead end main programs.

Justification:

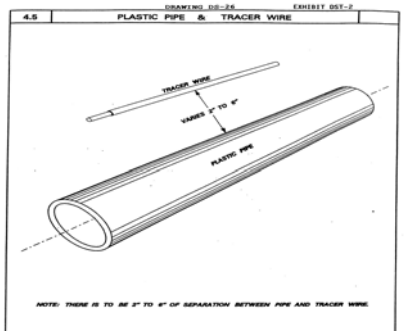
Data from the implementation of the dead end main program shows that nearly 50% of the dead end mains are either inoperable or unlocatable. This has created the need for an alternate solution to the one currently in place. An alternate location will be identified to allow flushing of the dead end main. This alternate location is typically a fire hydrant located on the same main.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$1,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10702
Project:	Water Main Replacement Geotechnical Services Contract 2018
Programmed Amount:	$242,608
Core Business:	WD - Water Delivery
Category:	Main Replacement - Water
Phase:	Design
Council District:	System Wide



Description and Scope:

In connection with the design and construction of capital projects, SAWS contracts for professional engineering services related to geotechnical and construction materials testing and reporting.

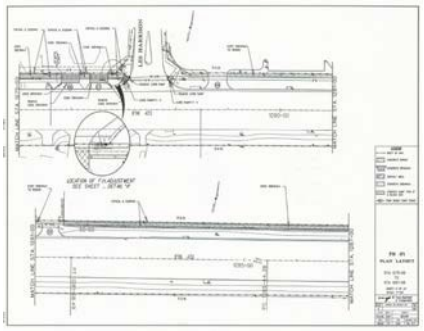
Justification:

These services provide information that assists in the design of construction projects and ensures appropriate materials are utilized based on the conditions at the project location.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$200,000	$0

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW



Project ID:	Pro-00193
Project:	Water Main Replacement Work Order Engineering Contract - SAWS - 2018
Programmed Amount:	$1,152,388
Core Business:	WD - Water Delivery
Category:	Main Replacement - Water
Phase:	Design
Council District:	System Wide

Description and Scope:

This annual project funds design services to rehabilitate/replace water mains that have experienced a high rate of main failure. These projects vary in size and location, and may require the solicitation of contractor construction services on an urgent basis. The projects will replace sub-standard or deteriorated water mains requiring immediate replacements.

Justification:

Design of mains to be rehabilitated or replaced is necessary to restore and maintain reliable water service.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$950,000	$0

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10292
Project:	Broadband Access Points and Programmable Logic Cor - Phase 2
Programmed Amount:	$909,780
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Design
Council District:	System Wide

Description and Scope:

This project replaces the aging radio communication system used to receive data from the water production and pumping stations with new wireless communication infrastructure to upgrade communication capability. It also replaces obsolete control equipment at the water production and pumping stations. The existing equipment is old and some components are no longer supported by the manufacturer. The radio systems have an expected lifespan of 7 years. The existing controllers have an expected lifespan of 10 years.

Approximately 26,000 data points at the water production facilities across Bexar County are actively monitored and/or controlled from a central control point at headquarters. The upgrades will increase efficiency by allowing development of standardized, automated control strategies for stopping and starting pumping equipment based on equipment efficiency, customer demand patterns and energy costs. Additionally, control and monitoring equipment can be programmed from the control center at headquarters through the broadband system, reducing the labor time involved in driving to the pump station, and the time for a signal to be sent to the pump station will be greatly reduced.

The master plan for upgrade of the Supervisory Control and Data Acquisition (SCADA) system recommends these upgrades. Phase 2 will address the facilities that were deemed medium criticality. Phase 1 construction began mid-2017 and will address the high criticality facilities. Phase 3 design is currently planned for 2019.

Justification:

Replacing and upgrading the control and communication systems for the pump stations is necessary for uninterrupted service, strengthening of cyber security, migration to one common SCADA control system, and increased efficiency. Improving technology is needed to reinforce site cyber security and to manage the expanding system without adding additional staff.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2019
	$0	$750,000	$4,500,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00020
Project:	DeZavala Storage Tank
Programmed Amount:	$1,500,530
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Acquisition
Council District:	District 08

Description and Scope:

Funds are needed to acquire land for a 2.5 million gallon elevated water storage tank for Pressure Zone 1111. This pressure zone serves a large area both east and west of Interstate 10. The area experiences low pressures around the Lockhill-Selma and Huebner Road neighborhoods. This master planned water storage tank will accommodate future growth in the pressure zone. The project will include piping, control valves, electrical, SCADA, and civil site work.

The project will be designed in 2020 and constructed in 2022.

Justification:

This project is needed for future growth in a rapidly growing part of the city. This tank will improve low pressures and allow PZ 1111 to meet TCEQ elevated storage requirements through 2026.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.	2018	2020	2022
	$1,237,000	$412,500	$4,125,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00297
Project:	Dietrich Storage Tank
Programmed Amount:	$758,150
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Design
Council District:	District 02

Description and Scope:

Dietrich Tank is a master planned project that is required to provide 1.5 million gallons of elevated storage for Pressure Zone 828 in the SE Loop 410 and IH-10E area. The new tank will meet TCEQ capacity requirements for future growth in this area. The project will include piping, control valves, electrical, SCADA, and civil site work.

Justification:

Pressure Zone 828 served by this proposed elevated storage tank is at 98% of its available elevated capacity per TCEQ requirements. Therefore, the project is needed in the near future to avoid being in violation of this regulation.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.	2017	2018	2020
	$243,750	$625,000	$4,875,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID: Pro-00224

Project: Hunt Lane Elevated Storage Tank

Programmed Amount: $7,642,152

Core Business: WD - Water Delivery

Category: Production

Phase: Construction

Council District: District 04

Description and Scope:

Project involves the construction of a 1.5 MG elevated composite water storage tank including but not limited to, piping, fencing, pavement, Supervisory Control and Data Acquisition (SCADA) controls, electrical and security features. Project will include the demolition of the existing 1.0 MG Loma Linda storage tank located at 5218 Loma Linda Dr., 78201, once the new tank is in service.

Justification:

The new tank will replace the existing Loma Linda Tank due to its inefficient overflow elevation. The new tank will be 20 feet higher than the existing tank and is recommended per the latest 2008 Water Master Plan. The existing Loma Linda Tank was constructed in 1956 (60 years)) The tank is 20 feet below the static elevation of Pressure Zone 4 under which it operates.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$636,089	$6,300,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00183
Project:	La Rosa Pump Station Rehabilitation
Programmed Amount:	$6,671,720
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Construction
Council District:	OCL

Description and Scope:

This pump station is the only source of water to pressure zone 830 which extends from the south side of San Antonio to the City of Somerset and then to southeast Bexar County. The La Rosa pump station is located near IH 35 South and Somerset Road. The project consists of the replacement of existing high service pumps with new horizontal split case pumps in order to meet peak water demands. The project will also rehabilitate aging, obsolete and unserviceable equipment and components including the replacement of miscellaneous piping and valves. Complete replacement of electrical switchgear and SCADA systems will be part of the scope of work.

Justification:

The pump station has aging infrastructure and the pumps do not have pump control valves which causes pressure fluctuations in the distribution system. This will eventually result in water main breaks. Adding the valves and updating the infrastructure will increase reliability and help to avoid future water main breaks.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2015	2018
	$0	$0	$5,500,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10794
Project:	Mission Pump Station Additional Well
Programmed Amount:	$2,426,080
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Construction
Council District:	District 03

Description and Scope:

The artesian well #5 at Mission Pump Station is over 70 years old and has downhole casing failures. The pump station was rehabilitated but the subsurface well infrastructure was not. This pump station is one of the main pump stations for SAWS system.

Justification:

Future well failures may leave customers out of water for a significant amount of time.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$2,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00228
Project:	Production Control System Upgrade
Programmed Amount:	$8,794,540
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Construction
Council District:	System Wide

Description and Scope:

This project will ensure that SAWS conforms to stringent state and federal regulatory requirements that affect system operations and infrastructure security. Improved process monitoring, control and security strategies will converge to meet those regulations. Hardware, software and communications must be upgraded to help meet the challenges of providing high quality services and sustainable infrastructure security threats. The scope of work shall include the design, delivery, field installation and commissioning of all hardware, software, documentation and training for the new secured integrated control system. Programming is included in the estimated cost of design.

Justification:

These upgrades will facilitate future standardizations of instrumentation and control systems for SAWS Production Operations.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2016	2018
	$0	$0	$7,250,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10703
Project:	Production Facilities Construction Work Order Contract 2018
Programmed Amount:	$303,260
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Construction
Council District:	System Wide

Description and Scope:

This contract will allow work order contracts for construction of small but urgent projects not executable by SAWS engineering and operations staff. SAWS periodically has need for general types of projects that entail rehabilitation, improvement upgrades, addition/demolition, replacement/expansion of equipment and facilities. These include:

-water production primary and secondary pump station facilities
-elevated storage tank and ground storage tank sites
-transmission mains (20-inch diameter and larger)
-valve & control valve replacement, yard piping, electrical upgrades, SCADA, programming
-other related projects of similar nature as above

The scope of work may include, but is not limited to potholing and subsurface utility investigation, prepare the right of way, permit application, coordination with other utilities, agencies and consultants, civil, structural, mechanical, electrical and environmental services related to potable water facilities, prepare material submittals and shop drawings, preparation of pay estimates, participating in equipment performance testing, final inspection and project completion and other construction phase services.

Justification:

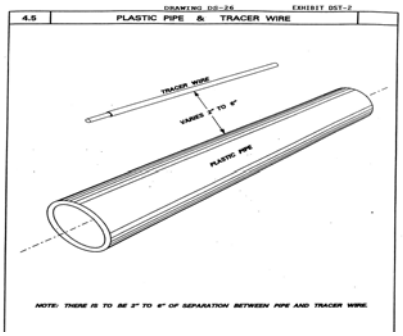
This Work Order Contract will be on an "as-needed" basis, and the scope of the construction will depend on the nature of each individual project. A work order will be issued upon identification of a need for a construction activity and determination of its scope and schedule.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$250,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10696
Project:	Production Facilities Engineering, Geotechnical, and Surveying Work Order Contract
Programmed Amount:	$545,868
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Design
Council District:	System Wide



Description and Scope:

The San Antonio Water System periodically has a need for general types of projects that entail evaluation, rehabilitation, improvement upgrades, addition/demolition, replacement/expansion of equipment and facilities. These include:

-water production primary and secondary pump station facilities
-elevated storage tank and ground storage tank sites
-transmission mains (20-inch diameter and larger)
-valve & control valve replacement, yard piping, electrical upgrades, SCADA, programming
-other related projects of similar nature as above

The scope of work may include, but is not limited to, geotechnical and field survey, potholing and subsurface utility investigation, right of way services, permit application assistance, public meetings/hearings attendance, coordination with other utilities, agencies and consultants, civil, structural, mechanical, electrical and environmental services related to potable water facilities, preliminary engineering evaluation and recommendations, preparation of design plans, specifications, cost estimates, and bid documents, assistance during construction by reviewing contractor submittals and shop drawings, preparation of pay estimates, participating in equipment performance testing, final inspection and project completion and other construction phase services.

Justification:

This Work Order Contract will be on an "as-needed" basis, and the scope of the services will depend on the nature of each individual project. A work order will be issued upon identification of a project and determination of its scope and schedule.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$450,000	$0

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00095
Project:	Water Production Facility Upgrade Program Phase 11 – Wurzbach Pump Station
Programmed Amount:	$21,834,720
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Construction
Council District:	District 07

Description and Scope:

The Wurzbach pump station is in Pressure Zone 5 and supplies 79 million gallons per day of water to the northwestern and northern service areas along Loop 410. This project, Phase 11 of the multi-year program pump station rehabilitation program, will replace aging, obsolete and unserviceable medium voltage electrical and control equipment, components, and related infrastructure, and will also replace the existing synchronous well pump motor #3 with an induction type motor. All primary medium voltage switchgear, the motor control center, associated high service and well pump controls, duct banks and related infrastructure require replacement. The project includes the upgrade of chlorination facilities to bring them into compliance with current Fire Codes, as well as federal and state standards and requirements.
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Justification:

This primary pump station was built in 1963. An addition was made around 1985 but all electrical gear is original, and at over 50 years old it has significantly exceeded the 20-25 year life expectancy for electrical equipment. Existing vaults and hand-holds are unsafe and generally in violation of current electrical and safety codes. Furthermore, the equipment has reached a level of obsolescence that not only makes it unreliable but replacement parts and components are becoming increasingly difficult to obtain, resulting in extended equipment outages.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2015	2018
	$0	$1,424,056	$18,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00096
Project:	Pump Station Rehabilitation Phase 4b – Basin
Programmed Amount:	$20,864,288
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Construction
Council District:	District 01

Description and Scope:

This project, Phase 4b of a multi-phase pump station rehabilitation program, will rehabilitate the Basin pump station that serves Pressure Zone 4, across the northern half of the area inside Loop 410. This pump station has a capacity of over 100 million gallons per day. The project will replace the existing chlorine disinfection system with a new sodium hypochlorite on-site generation system, replace existing electrical duct banks not replaced during the first phase of the project, install new energy efficient exterior lighting, replace selected sections of yard piping and defective and/or failed valves, modify existing well heads to satisfy TCEQ requirements, and mill and overlay existing pavement in poor condition. This will bring the facility into compliance with current federal, state and local standards. This phase will complete the upgrades to this pump station.

Justification:

This station provides water service to a significant portion of SAWS system and will play a key role in distributing water provided from the Vista Ridge project. The improvements included in this phase are critical for ensuring service reliability and safety.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2015	2018
	$0	$766,963	$17,200,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00080
Project:	Turtle Creek No. 3 Well Field, Ground Storage Tank and High Service Pumps
Programmed Amount:	$2,122,820
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Design
Council District:	District 08

Description and Scope:

This project will design the Turtle Creek #3 primary pump station, with construction funding for the pump station and wells planned for 2020. This pump station will provide water to the densely populated Medical Center area. This project, identified in the 2008 Water Infrastructure Plan, will result in a new 20 million gallons/day Pressure Zone 8 primary pump station, pending the production capacity of the two new wells. The station will be located at the same site as the existing Turtle Creek #3 pump station, currently consisting of only one small well. A water transmission main will be constructed in 2019 to convey water from the pump station to the Medical Center area.

Justification:

This station provides service to the Medical Center area. This critical area is currently served by Turtle Creek #2 (one of two wells remaining); Dreamhill (one well out of service for over a year); and the existing Turtle Creek #3 (one well). The failure of any, or a combination, of these three wells would seriously affect SAWS' ability to maintain reliable water service to the Medical Center area.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.	2017	2018	2020
	$0	$1,750,000	$17,750,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00229
Project:	Water Production Facilities Disinfection System Upgrades Phase 2
Programmed Amount:	$5,701,288
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Construction
Council District:	District 02

Description and Scope:

This project will replace chlorine gas containers at three pump stations with on-site sodium hypochlorite generation as a disinfectant for potable water. Sodium hypochlorite is a non-hazardous chemical. The three pump stations in Phase 2 are the Artesia, Randolph, and Seale pump stations. They will be upgraded in that order beginning in 2018, with additional design in 2019 and two more construction phases in 2020 and 2021.

This is Phase 2 of a two phase project. Phase 1 construction was in 2014. The total cost of the project is $14.6 million.

Justification:

Upgrading the disinfection systems to sodium hypochlorite will improve safety at these facilities.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$520,000	$4,700,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00099
Project:	Zarzamora Pump Station Upgrade
Programmed Amount:	$4,017,588
Core Business:	WD - Water Delivery
Category:	Production
Phase:	Construction
Council District:	District 05

Description and Scope:

The Zarzamora Pump Station is a primary pump station which includes wells, tank, pumps, and a disinfection system. This is the main source of water to pressure zone 790 which covers a very densely populated neighborhood in the Southside area from Quintana Rd. in the west to Roosevelt Rd. in the east. This pump station runs continuously in order to keep up with water demands and SAWS crews have to deliver chlorine cylinders often since the chlorine gas disinfection system is undersized. The project consists of the replacement of existing electrical systems and installing a new sodium hypochlorite disinfection system. This pump station is located near Somerset Road and W. Southcross Blvd. The project will also rehabilitate aging, obsolete and unserviceable equipment and components including the replacement of belowground piping and valves. The complete replacement of electrical switchgear and SCADA systems will be part of the scope of work.

Justification:

The existing outdated equipment is unreliable. Upgrading the disinfection systems to sodium hypochlorite will improve safety at the facility. The project was funded for construction in 2017, and increased scope requires additional funding in 2018.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2015	2018
	$0	$0	$3,312,000

Wastewater

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SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00160
Project:	General Legal Services - WW -2018
Programmed Amount:	$111,332
Core Business:	WW - Wastewater
Category:	Corporate WW
Phase:	Acquisition
Council District:	System Wide

Description and Scope:

Specialized legal support is required for critical projects.

Justification:

External legal support is sought only when there is insufficient internal legal staff to support the effort, or specialized legal expertise is required.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.	2018	2018	2018
	$95,000	$0	$0

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10723
Project:	Wastewater OCCC 2018
Programmed Amount:	$6,453,351
Core Business:	WW - Wastewater
Category:	Corporate WW
Phase:	Construction
Council District:	System Wide

Description and Scope:

Funds for Owner Controlled Construction Changes.

Justification:

Changes occur on construction projects, and must be approved by SAWS Board of Trustees if over $100,000.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$0	$6,277,579

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10658
Project:	Mission Del Lago - Offsite Sewer Improvements (15 Inch Required - 27 Inch Oversize)
Programmed Amount:	$4,218,912
Core Business:	WW - Wastewater
Category:	Mains New - Sewer
Phase:	Construction
Council District:	District 03

Description and Scope:

The developer shall construct approximately 17,210 feet of offsite 15-inch sewer main (oversized to 27-inch). The total cost of the project is approximately $5.7 million, and SAWS share is approximately $3.6 million.

Justification:

San Antonio Water System Master Plan and the anticipated growth in this area require a 27-inch gravity sewer main between the existing Mission Del Lago Lift Station 192 and the 96-inch Southwest Bexar Sewer Pipeline.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$0	$3,600,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00108
Project:	Sewer Main Oversizing 2018 - SAWS
Programmed Amount:	$1,171,920
Core Business:	WW - Wastewater
Category:	Mains New - Sewer
Phase:	Construction
Council District:	System Wide

Description and Scope:

Represents SAWS proportionate share of the cost of mains which are necessary to serve anticipated growth but are larger than the size main required by a developer customer or single customer. Developers are required to build necessary offsite infrastructure to meet the needs of their development. When growth is projected in adjacent tracts, SAWS contributes money to increase the size of the mains to serve the additional growth. Sharing in the cost is beneficial to both SAWS and the developer and prevents the construction of parallel smaller sized mains.

Justification:

Participating in oversizing is a cost effective way to meet the needs of growth. It is funded by impact fees collected from new development.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$1,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00379
Project:	C-30 San Joaquin to General McMullen
Programmed Amount:	$1,398,101
Core Business:	WW - Wastewater
Category:	Main Replacement - Sewer
Phase:	Construction
Council District:	District 05

Description and Scope:

The project consists of replacing and upsizing approximately 2,300 feet of existing 12-inch and 18-inch sewer line and installing new manholes on South General McMullen Drive in the Central Sewershed. The existing line and manholes are very shallow with 1.5 feet of freeboard at the shallowest points. Upsizing the existing line from 12-inch to 18-inch diameter will allow the pipe to convey the modeled flows, which are predicted to exceed the capacity of the existing pipe by up to 30% during wet weather.

Justification:

SAWS is obligated by its consent decree to remediate field verified capacity constraints. This project remediates a field verified capacity constraint that will be included in the capacity remedial measures plan. The project completion dates will become an obligation under the CD when the capacity remedial measures plan is approved by EPA.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$0	$1,193,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10194
Project:	C-5 Culebra and Castroville to Laredo and C-28 Zarzamora Creek - San Gabriel to NW 23rd Street - Segment 3
Programmed Amount:	$3,984,528
Core Business:	WW - Wastewater
Category:	Main Replacement - Sewer
Phase:	Construction
Council District:	District 05

Description and Scope:

The C-5 and C-28 Phase 3 project will install 12,300 feet of 24-inch, 27-inch, 30-inch, and 33-inch sewer main in two segments, with one segment starting at W. Houston Street going northwest and terminating at Culebra Road and the other segment along Landa Ave. from Matyear Street following Zarzamora Creek and terminating at N. San Gabriel. Phase 2 was awarded in 2017, and phase 3 will complete the project.

Justification:

The existing pipes do not have sufficient capacity. The age and condition of some portions of the pipe further demonstrate the need to replace the pipe. This project is part of the Early Action Program Phase II Capacity Remediation Project and must be completed by July 22, 2020.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2011	2018
	$0	$0	$3,400,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10092
Project:	E-19: Seguin Road to Nacogdoches Road Segment 2
Programmed Amount:	$38,087,400
Core Business:	WW - Wastewater
Category:	Main Replacement - Sewer
Phase:	Construction
Council District:	District 02, District 10

Description and Scope:

The project will upsize approximately three miles of existing 34, 39, 42, and 48-inch wastewater mains to 60, 72, and 78-inch (or as determined by design) wastewater main in the Eastern Sewershed from Seguin Road running north generally along Salado Creek within or near Holbrook and Ira Lee Road and then across Loop 410 up to a point just south of Nacogdoches Road. This main collects wastewater flows from the northeast area of San Antonio and is projected to carry up to 93 million gallons per day by 2030. This is the second of two segments that comprise the overall E-19 project.

Justification:

Existing pipes do not have sufficient capacity. This results in frequent sanitary sewer overflows. The age and condition of some portions of the pipe further demonstrate the need to replace the pipe.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$0	$32,500,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00232
Project:	Governmental Sewer - SAWS - 2018
Programmed Amount:	$24,141,552
Core Business:	WW - Wastewater
Category:	Governmental Sewer
Phase:	Construction
Council District:	System Wide

Description and Scope:

The governmental program consists of projects implemented in conjunction with other government agencies infrastructure work. The program includes replacement of water mains in poor condition, adjustment of water mains whose existing alignment conflicts with proposed new street alignment, and installation of new water mains needed to provide additional capacity.

SAWS participates in the Utility Coordination Council, and jointly plans and reviews infrastructure improvements with COSA, Bexar County, TXDOT, CPS Energy, AT&T, and other agencies, to maximize effectiveness of public infrastructure.

Justification:

Replacing and/or adjusting aging infrastructure in conjunction with other agencies planned street work is the most cost effective approach to infrastructure management. It minimizes the cost of construction and minimizes the potential of utility failure under a new street.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$20,600,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00239
Project:	Main Replacements - Sewer - SAWS Crews - 2018
Programmed Amount:	$4,101,720
Core Business:	WW - Wastewater
Category:	Main Replacement - Sewer
Phase:	Construction
Council District:	System Wide

Description and Scope:

Replacement of sewer mains by SAWS crews. When failures in the sewer system are encountered, SAWS crews determine the best method to restore service. When portions of the system must be replaced, the project is evaluated to determine if SAWS crews or contractors will be the most effective or efficient means to complete the replacement.

Justification:

The replacement work is necessary to restore service and is required to comply with the EPA Consent Decree.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$3,500,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00451
Project:	Martinez Creek: Perez St to W Huisache Ave
Programmed Amount:	$19,001,887
Core Business:	WW - Wastewater
Category:	Main Replacement - Sewer
Phase:	Construction
Council District:	District 01

Description and Scope:

SAWS will design and construct sanitary sewer lines located in District 1 within Martinez Creek from Perez Street near Alazan Creek to W. Huisache Avenue near Fredericksburg Road, along the west side of IH-10 West. Major streets in the area include Ruiz, Rivas, Lombrano, Culebra, University, Cincinnati, French, Craig, and Woodlawn.

The project will replace approximately 2.2 miles of 33-inch, 36-inch and a parallel 24-inch/33-inch and 33-inch/36-inch sanitary sewer mains in the Central Sewer Shed. The existing main collects wastewater from the Northeast area of San Antonio. The current sewer system is located along the improved drainage path of Martinez Creek conveying an average daily wastewater flow (ADF) of 2-3 MGD with a dry-weather daily diurnal peak flow of about 5 MGD. The new sewer main(s) will be sized (48-inch/54-inch) to accommodate an average daily flow of 3.5 MGD and peak flows of 28 MGD as defined by SAWS Master Planning. The project will utilize open cut excavation.

This project is also a part of the work required by San Antonio's agreement with the EPA to replace deteriorated sewer infrastructure across the city.

Justification:

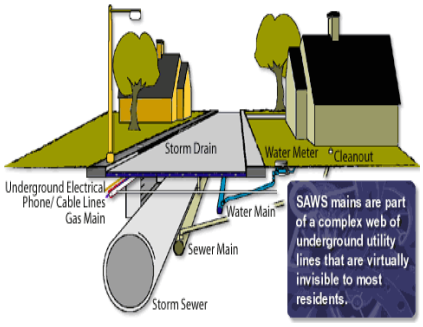
The replacement of the existing sewer main will decrease the likelihood of sanitary sewer overflows as required by the EPA. This project is part of the EPA Consent Decree.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2015	2018
	$0	$1,950,387	$16,214,321

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00247
Project:	Sewer Laterals - 2018
Programmed Amount:	$4,922,064
Core Business:	WW - Wastewater
Category:	Main Replacement - Sewer
Phase:	Construction
Council District:	System Wide



Description and Scope:

Replace deteriorated customer sewer upper laterals from the sewer main to the customer's property line. Each year SAWS crews replace customer laterals (the section of pipe from the main in the street to a customer's property line) when televising or reported problems indicate the lateral has become unserviceable.

In 1999 City Council directed SAWS to assume ownership and maintenance of upper sewer laterals, which had previously been the responsibility of property owners.

Justification:

Replacement of upper sewer laterals is necessary to restore service and reduces inflow and infiltration, which reduces sewer overflows, and is required by the EPA Consent Decree.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$4,200,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00257
Project:	Small and Large Diameter Condition Remedial Measures 2018
Programmed Amount:	$46,876,800
Core Business:	WW - Wastewater
Category:	Main Replacement - Sewer
Phase:	Construction
Council District:	System Wide

Description and Scope:

Rehabilitate sewer mains that have been identified by televised inspection to be in very poor condition. This project will fund the rehabilitation of approximately 40 miles of small and 5 miles of large diameter sewer mains. Areas identified for rehabilitation are evaluated to determine the most cost effective method (conventional open trench replacement, cured in place pipe, or pipe bursting) of rehabilitation. This project is part of the EPA Consent Decree. The program requires SAWS to rehabilitate 75 miles of sewer main in poor condition and also includes manhole rehabilitation that will be performed under this project.

Each year, SAWS is required to inspect high risk pipes to evaluate condition and to take necessary action to prevent sewer overflows.

Justification:

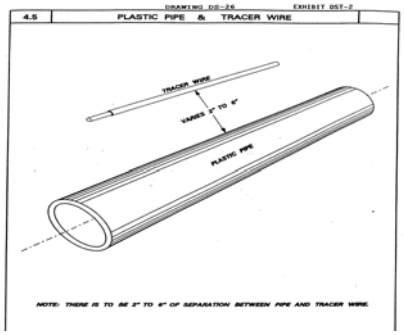
Rehabilitation of the sewer system is required by the EPA Consent Decree.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2015	2018
	$0	$0	$40,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10705
Project:	Wastewater Main Replacement Geotechnical Services Contract 2018
Programmed Amount:	$234,384
Core Business:	WW - Wastewater
Category:	Main Replacement - Sewer
Phase:	Design
Council District:	System Wide



Description and Scope:
In connection with the design and construction of capital projects, SAWS contracts for professional engineering services related to geotechnical and construction materials testing and reporting.

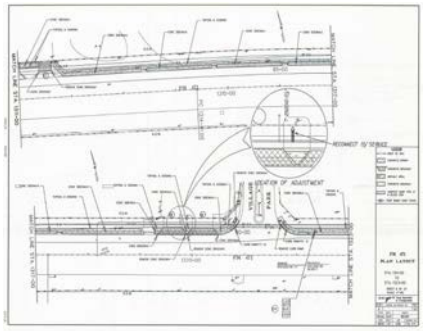
Justification:

These services provide information that assists in the design of construction projects and ensures appropriate materials are utilized based on the conditions at the project location.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$200,000	$0

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW



Project ID:	Pro-00252
Project:	Wastewater Main Replacement Work Order Engineering Contract - 2018
Programmed Amount:	$4,687,680
Core Business:	WW - Wastewater
Category:	Main Replacement - Sewer
Phase:	Design
Council District:	System Wide

Description and Scope:

This annual project will fund design services to repair/replace sewer mains that have experienced cave-ins and overflows. These projects vary in size and location and may require the solicitation of contractor construction services on an urgent basis.

Justification:

These projects will be constructed on an urgent and in some cases emergency basis to correct unsanitary and potentially hazardous conditions that pose a threat to public health and safety, and are primarily projects required by the EPA Consent Decree.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$4,000,000	$0

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10796
Project:	Western Watershed Emergency Sewer Relief Project (W-52 Interconnect)
Programmed Amount:	$15,234,960
Core Business:	WW - Wastewater
Category:	Main Replacement - Sewer
Phase:	Construction
Council District:	District 06

Description and Scope:

This project will transfer flows from the W-52 sewer main in the western sewershed to the central sewershed to reduce the possibility of overflows. The project will alleviate a capacity constraint in the sewer main on the north side of Loop 410 on the southwest side of the city, install a temporary bypass on the south side of Loop 410 to relieve a capacity constraint, and expand a lift station to transfer flows from the western sewershed to the central sewershed.

Justification:

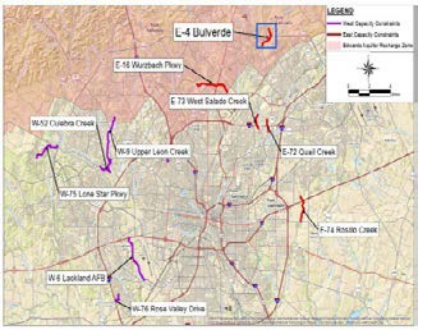
This project will alleviate existing capacity constraints located along Leon Creek in the Western Sewershed until the long term solutions can be constructed which include the construction of the W-6 and W-1 projects. An existing capacity constraint in the W-52 sewer main located at Culebra Creek and Piper's Bluff will be mitigated by constructing approximately 1,200 feet of sewer main and connecting it to an existing 60-inch main immediately to the south. To alleviate a capacity constraint south of Highway 151 and north of Highway 90 along Leon Creek, a temporary relief line will be constructed and an existing lift station and associated piping will be expanded to divert flows to the Central Sewershed.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$0	$13,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00372
Project:	E-4 Bulverde Area Sewer Capacity Relief and Storage at Loop 1604
Programmed Amount:	$1,757,880
Core Business:	WW - Wastewater
Category:	Main Replacement - Sewer
Phase:	Design
Council District:	District 10



Description and Scope:

This project is located in northeast San Antonio and extends along Elm Creek within the greenway. The pipeline is approximately 9,073 feet and manhole depth ranges from 5 to 17 feet deep. The original pipe was installed in 1996 and additional segments were installed in 2001.

Justification:

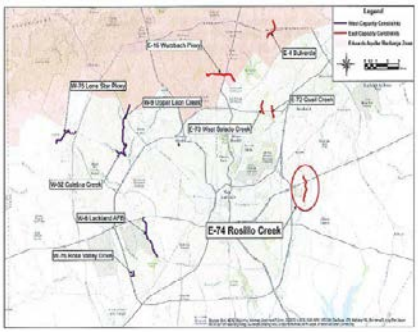
This project has capacity constraints due to upstream growth.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.	2019	2018	2020
	$1,000,000	$1,500,000	$15,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10795
Project:	E-74 Rosillo Creek Sewer Capacity Storage South of IH-10
Programmed Amount:	$234,384
Core Business:	WW - Wastewater
Category:	Main Replacement - Sewer
Phase:	Acquisition
Council District:	OCL



Description and Scope:

The E-74 project is in east San Antonio near the intersection of Loop 410 and IH-10 along Rosillo Creek. The project is approximately 10,375 feet of pipe ranging from 21-inch to 30-inch. The original pipe was intallled in 1971 and various segments have been replaced or rehabilitated. The segment under IH-10 needs to be replaced due to condition.

Justification:

This pipe has a capacity constraint and must be replaced to avoid overflows.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.	2018	2019	2020
	$200,000	$500,000	$5,700,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10685
Project:	Dos Rios WRC Chlorine System Improvements
Programmed Amount:	$4,687,680
Core Business:	WW - Wastewater
Category:	Treatment
Phase:	Construction
Council District:	District 03

Description and Scope:

The project scope will include:

- Replacement of the rolling tarp in chlorine and sulfur dioxide cylinder storage area with a rolling tarp without windows
- Replacement of all corroded chlorination and de-chlorination piping, filters, valves and regulators
- Replacement of existing analog scales with digital scales for single cylinders
- Ability to run the cylinders on a single header
- Installation of a heating system in the sulfur dioxide storage area
- Expansion of the sulfur dioxide evaporator room or options to replace the existing evaporators with much smaller (glycol) evaporators to gain space
- Replacement of outdated equipment (chlorinators, evaporators, controls, etc.) as necessary
- Replacement of piping and valves from the Disinfection Building to the Chlorine Contact Basins
- Replacement of the Disinfection Building roof
- Replacement of vent piping to allow troubleshooting/maintenance
- All other necessary modifications and upgrades to make the disinfection facility more up-to-date and compliant with the latest rules and regulations.

Justification:

The Disinfection Building at Dos Rios WRC was constructed in 1984 and expanded in 1992. Some upgrades were constructed in 2010. These improvements will address deteriorated equipment, piping and appurtenances to reduce maintenance, and increase operational flexibility, accessibility and safety.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.	2017	2017	2018
	$0	$0	$4,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10684
Project:	Dos Rios WRC Thickening Facility Expansion Project
Programmed Amount:	$4,687,680
Core Business:	WW - Wastewater
Category:	Treatment
Phase:	Construction
Council District:	District 02

Description and Scope:

This project will add a Gravity Belt Thickener to the existing Thickening Facility at the Dos Rios WRC.

Justification:

The existing thickening facility at Dos Rios WRC does not have sufficient capacity to treat additional sludge that will be generated from the newly constructed sludge blending tank. Additional gravity belt thickeners are needed to increase the capacity of the existing thickening facility. Delay of this project will result in difficulty in managing sludge which can impact the efficient operation of the Dos Rios WRC.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$0	$4,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10706
Project:	Treatment Facilities Construction Work Order Contract 2018
Programmed Amount:	$585,960
Core Business:	WW - Wastewater
Category:	Treatment
Phase:	Construction
Council District:	System Wide

Description and Scope:

This annual contract will fund construction services that cannot be done by SAWS construction crews, and include construction activities at the following facilities:
-wastewater treatment (SAWS water recycling centers)
-recycle water pump stations (SAWS water recycling centers)
-recycle water system (SAWS service area)
-cooling (SAWS service area)
-lift stations (SAWS service area)
-odor control stations (throughout the City of San Antonio)

Justification:

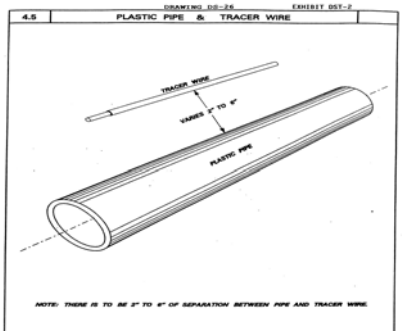
This Work Order Contract will be on an “as-needed” basis, and the scope of the construction will depend on the nature of each individual project. A work order will be issued upon identification of a need for a construction activity and determination of its scope and schedule.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$500,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10700
Project:	Treatment Facilities Engineering, Geotechnical, and Surveying Work Order Contract
Programmed Amount:	$1,054,728
Core Business:	WW - Wastewater
Category:	Treatment
Phase:	Design
Council District:	System Wide



Description and Scope:

Work order contracts for engineering of small but urgent projects that are not executable by SAWS engineering and operations staff. These contracts allow flexibility to execute projects without pulling funds from budgeted projects, and avoid delays associated with conventional bid processes.

Justification:

This Work Order Contract will be on an "as-needed" basis, and the scope of the construction will depend on the nature of each individual project. A work order will be issued upon identification of a need for a construction activity and determination of its scope and schedule.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$900,000	$0

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WATER RESOURCES

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SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00159
Project:	General Legal Services - WR - 2018
Programmed Amount:	$344,174
Core Business:	WR - Water Resources
Category:	Corporate WR
Phase:	Acquisition
Council District:	System Wide

Description and Scope:

Specialized legal support is required for critical projects.

Justification:

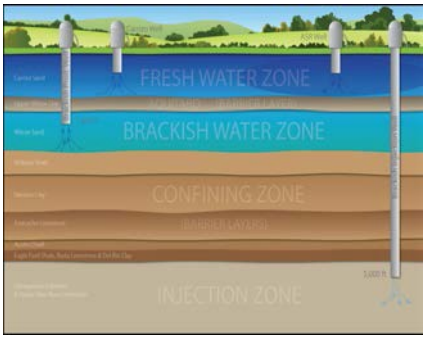
External legal support is sought only when there is insufficient internal legal staff to support the effort, or specialized legal expertise is required.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.	2018	2018	2018
	$310,000	$0	$0

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10719
Project:	Desalination Additional Well
Programmed Amount:	$1,665,360
Core Business:	WR - Water Resources
Category:	Desalination
Phase:	Construction
Council District:	OCL



Description and Scope:

This project will drill one additional production well at SAWS Brackish Groundwater Desalination (BGD) facility.

Justification:

The existing BGD facility has twelve production wells; all of these wells need to be operated to produce 12 million gallons per day (MGD) of finished water. Four primary reverse osmosis trains need to be running to produce 12 MGD finished water. Three production wells are required to run one primary reverse osmosis train. The existing facility does not have any redundant production wells. Therefore, if one production well goes offline, it shuts down one primary reverse osmosis train, which cuts approximately 25 percent of production capacity of the BGD facility. Drilling one more production well will provide redundancy to the system.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$0	$1,500,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10720
Project:	Desalination Raw Water Filtration
Programmed Amount:	$1,110,240
Core Business:	WR - Water Resources
Category:	Desalination
Phase:	Construction
Council District:	OCL

Description and Scope:

This project will install filtration equipment at SAWS Brackish Groundwater Desalination production wells.

Justification:

SAWS brackish groundwater desalination (BGD) plant obtains raw water from the Wilcox aquifer. One of the major challenges of operating production wells in the Wilcox aquifer is that very little information is available on the water quality of the Wilcox aquifer for southern Bexar county. SAWS BGD plant has been experiencing intermittent turbidity spikes from different production wells, which interrupts the continuous operation of the plant. One of the potential solutions to minimize the effect of turbidity spikes on the operation of the BGD plant is to filter out the suspended solids that are generated from the production wells and cause turbidity spikes at the plant.

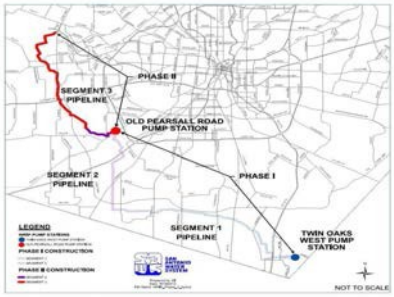
If the filtration equipment is not installed at the production well sites, then it will be difficult to operate the BGD plant continuously without interruptions from the turbidity spikes.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2017	2018
	$0	$0	$1,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00322
Project:	Water Resource Integration Pipeline and Pump Stations Phase II
Programmed Amount:	$37,070,914
Core Business:	WR - Water Resources
Category:	Integration
Phase:	Construction
Council District:	System Wide



Description and Scope:

This project will construct the following components necessary for the completion of the integration pipeline running from SAWS H_2Oaks facility in southeast Bexar County to the Anderson pump station at Hwy 151 and Loop 1604 :

•Adding two pumps at Twin Oaks pump station. Production capacity of each of these pumps will be 15 million gallons per day (MGD). Currently Twin Oaks pump station has a pumping capacity of 45 MGD. Adding these two pumps will increase the pumping capacity of Twin Oaks pump station to 75 MGD.

•Adding a total of six pumps at Old Pearsall pump station. Five of these pumps (each with a pumping capacity of 11 MGD) will be installed to deliver water from Old Pearsall pump station to Anderson pump station. One pump (with a pumping capacity of 5 MGD) will be installed to deliver water from Old Pearsall pump station to pressure zone 4. The existing pressure zone 4 pump station at Old Pearsall has a total pumping capacity of 15 MGD; adding the fourth pump will increase the capacity to 20 MGD.

•Construction of approximately 3,000 linear feet of 48-inch water main to connect the terminus of the WRIP Pipeline Segment 3 project to the two existing 7.5 million gallon tanks onsite.

Justification:

The Habitat Conservation Plan (HCP) that was developed as a part of Edwards Aquifer Recovery Implementation Program requires SAWS to implement a 'presumptive' action that involves the use of SAWS ASR (aquifer storage and recovery) with a planned construction of the WRIP pipeline to obtain an adequate habitat and spring flow protection measures. According to the HCP, the WRIP pipeline will be used to convey water from SAWS ASR, Carrizo and brackish groundwater desalination programs located at the H_2Oaks facility to the Anderson pump station.

The existing infrastructure conveys water from H_2Oaks center to the Old Pearsall pump station (using Twin Oaks pump station). However, the existing infrastructure does not allow delivering water from Old Pearsall pump station to the Anderson pump station. This project will allow delivering water from Old Pearsall pump station to Anderson pump station. Additionally, this project will increase the capacity of Twin Oaks pump station as well as the pressure zone 4 pump station at Old Pearsall Road.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$33,390,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID: Pro-10728

Project: Vista Ridge Integration SCADA & Control Coordination

Programmed Amount: $2,442,528

Core Business: WR - Water Resources

Category: Vista Ridge Integration

Phase: Design

Council District: System Wide

Description and Scope:

The Vista Ridge Integration Project (VRIP) will supply SAWS a minimum of 45 million gallons of treated potable water per day. Due to the complexity of integrating the new Vista Ridge supply, especially on minimum demand days, SAWS will automate a portion of their distribution facilities to assist in moving the Vista Ridge supply water deep into the SAWS system.

In order to integrate the 45 MGD of Vista Ridge water supply, the hydraulic and water balance model shows that up to 14 pressure zones may be affected. Some of these pressure zones will be directly impacted by being served by Vista Ridge supply. Other pressure zones are indirectly impacted, and will need to adjust current operations to accommodate Vista Ridge supply. As this new water supply comes into these pressure zones, all facilities within the zone are affected and may need current operations adjusted. SAWS operations also needs to be flexible to accommodate both minimum day demands as well as maximum day demands and all other demands in between. For these reasons, SAWS' water distribution system needs to be automated.

As part of the automation effort the following tasks will be performed for each zone:
1. Engage in extensive workshops with SAWS production operations staff to identify current operations for all facilities within the pressure zone.
2. Develop detailed control descriptions on each facility based on the outcome of the workshops.
3. Review existing Programmable Logic Controller (PLC) programs for each facility in the affected pressure zone.
4. Change the PLC program as required to automate all equipment identified in the workshop as needing automation.
5. Download, test, and commission the new PLC programs.

Justification:

Within the 14 pressure zones affected by the VRIP supplied water, there are approximately 118 facilities that need to be evaluated and may need additional PLC programming to automate distribution equipment such as distribution pumps, flow control valves, wells, pressure reducing valves, elevated and ground storage tanks, etc. Automation of most facilities within pressure zones being impacted will need to be completed. A major component to successfully implement automation into a system that is currently largely controlled manually is to ensure SAWS operations staff has involvement in the automation process and time to work through the intricacies of the automation system. This scope of work is a systematic approach that allows for operations involvement by holding multiple workshops to clearly understand how they currently operate the system and scheduled so the operators have plenty of time to learn and get comfortable operating the entire system with the automation long before Vista Ridge supply water enters the distribution system.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	
	$0	$2,200,000	0

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00301
Project:	Pump Station Rehabilitation Phase 5 - Artesia
Programmed Amount:	$1,443,312
Core Business:	WR - Water Resources
Category:	ASR
Phase:	Design
Council District:	District 02

Description and Scope:

This project, Phase 5 of a multi-phase pump station rehabilitation program, will rehabilitate the Artesia pump station that serves Pressure Zone 3 across the southern half of the area inside Loop 410. This pump station has a capacity of over 50 million gallons per day. The project will replace aging, obsolete and unserviceable equipment and components, including electrical switchgear, transformers, MCC, replacement of electrical duct banks, and if necessary replace piping inside the pumps station including the pumps and header.

Justification:

The age of the electrical gear within the Artesia pump station makes maintenance difficult and can present potential safety issues. Some equipment is past its useful life and replacement would improve the reliability of the pump station.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2020
	$0	$1,300,000	$15,000,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-00143
Project:	Recycled Water Customer Lines - 2018
Programmed Amount:	$257,000
Core Business:	RW - Recycled Water
Category:	Recycled Water
Phase:	Construction
Council District:	System Wide

Description and Scope:

Construct extensions of recycled water mains to new customers. The recycled water system delivers non-potable water, which offsets the use of potable water.

Justification:

Providing low cost recycled water extensions supports the growth of the recycled system to preferred type (non-summer peaking) customers.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$200,000

SAN ANTONIO WATER SYSTEM
2018 CAPITAL IMPROVEMENT PROGRAM
PROJECT DATA SHEET

PROJECT OVERVIEW

Project ID:	Pro-10708
Project:	Recycled Water Governmental Adjustments - 2018
Programmed Amount:	$257,000
Core Business:	RW - Recycled Water
Category:	Recycled Water
Phase:	Construction
Council District:	System Wide

Description and Scope:

The governmental program consists of projects implemented in conjunction with other government agencies infrastructure work. The program includes replacement of recycled water mains in poor condition, adjustment of recycled water mains whose existing alignment conflicts with proposed new street alignment, and installation of new recycled water mains needed to provide additional capacity.

SAWS participates in the Utility Coordination Council, and jointly plans and reviews infrastructure improvements with COSA, Bexar County, TXDOT, CPS Energy, AT&T, and other agencies, to maximize effectiveness of public infrastructure.

The recycled water system delivers non-potable water, which offsets the use of potable water.

Justification:

Replacing and/or adjusting aging recycled water infrastructure in conjunction with other agencies planned street work is the most cost effective approach to infrastructure management. It minimizes the cost of construction and minimizes the potential of utility failure under a new street.

Funding Information:	**Acquisition Year:**	**Design Year:**	**Construction Year:**
Amounts shown are estimated costs without SAWS overhead.		2018	2018
	$0	$0	$200,000

Supplemental Information

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WATER SUPPLY FEE

Effective for all potable water consumption on or about January 1, 2018 and January 1, 2019, respectively.

This fee directly funds the acquisition of new water supplies to reduce San Antonio's dependence on the Edwards Aquifer.

The Water Supply Fee shall be assessed on all potable water service for water usage in every instance of service for each month or fraction thereof according to the schedule below:

WATER SUPPLY FEE

RATE CLASS	USAGE GALLON - BLOCK THRESHOLD	ASSESSED FEE RATE PER 100 GALLONS		
		Current **2017**	Approved **2018**	Approved **2019**
Residential	2,992	$0.0954	$0.0997	$0.1040
	4,489	0.1669	0.1744	0.1819
	5,985	0.2145	0.2242	0.2338
	7,481	0.2623	0.2741	0.2859
	10,473	0.3100	0.3240	0.3379
	14,962	0.3577	0.3738	0.3899
	20,199	0.4292	0.4485	0.4678
	Over 20,199	0.6198	0.6477	0.6756
General	Base*	$0.1799	$0.1880	$0.1961
	125% of Base	0.2070	0.2163	0.2256
	175% of Base	0.2699	0.2820	0.2941
	Over 175% of Base	0.3149	0.3291	0.3433
Wholesale	Base**	$0.2344	$0.2449	$0.2554
	Over Base	0.7033	0.7349	0.7665
Irrigation	8,229	$0.2354	$0.2460	$0.2566
	17,954	0.3296	0.3444	0.3592
	162,316	0.4238	0.4429	0.4619
	Over 162,316	0.5416	0.5660	0.5903

* The Base Use for General Class is defined as 100% of the prior year's average monthly consumption.

**The Base Use for the Wholesale Class is defined as 100% of the prior year's average monthly consumption or as agreed to by the wholesale customer and approved by the SAWS Board of Trustees.

RESIDENTIAL WATER AND SEWER RATES

RESIDENTIAL WATER RATES

Effective for consumption on or about January 1, 2018 and January 1, 2019, respectively.

The Service Availability Charge (minimum bill) assessed for all residential water service furnished through meters of the following sizes together with the Monthly Volume Charge measured per 100 gallons of water usage in every instance of service for each month or fraction thereof shall be as follows:

MONTHLY SERVICE AVAILABILITY CHARGE

	INSIDE CITY LIMITS			OUTSIDE CITY LIMITS		
METER SIZE	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
5/8"	$11.64	$12.77	$12.82	$15.14	$16.60	$16.67
3/4"	15.41	16.90	16.97	20.03	21.97	22.06
1"	22.90	25.12	25.22	29.78	32.66	32.79
1 1/2"	41.63	45.67	45.85	54.12	59.37	59.61
2"	64.08	70.30	70.58	83.30	91.38	91.75
3"	116.53	127.83	128.34	151.49	166.18	166.84
4"	191.42	209.99	210.83	248.84	272.97	274.06
6"	378.67	415.41	417.07	492.27	540.02	542.18
8"	603.37	661.90	664.55	784.37	860.45	863.89
10"	865.51	949.47	953.27	1,125.16	1,234.30	1,239.24
12"	1,614.51	1,771.12	1,778.20	2,098.87	2,302.46	2,311.67

Lifeline Discount

	INSIDE CITY LIMITS			OUTSIDE CITY LIMITS		
	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
Discount *	$2.32	$2.55	$2.57	$3.03	$3.32	$3.34

MONTHLY VOLUME CHARGE

	INSIDE CITY LIMITS			OUTSIDE CITY LIMITS		
	RATE PER 100 GALLONS			RATE PER 100 GALLONS		
Usage Gallon Block Threshold	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
2,992	$0.0672	$0.0737	$0.0740	$0.0873	$0.0958	$0.0962
4,489	0.1176	0.1290	0.1295	0.1528	0.1676	0.1683
5,985	0.1511	0.1658	0.1665	0.1965	0.2156	0.2165
7,481	0.1847	0.2026	0.2034	0.2401	0.2634	0.2645
10,473	0.2183	0.2395	0.2405	0.2838	0.3113	0.3125
14,962	0.2520	0.2764	0.2775	0.3275	0.3593	0.3607
20,199	0.3023	0.3316	0.3329	0.3930	0.4311	0.4328
Over 20,199	0.4366	0.4790	0.4809	0.5677	0.6228	0.6253

*Water Service Availability Charge is reduced by the discount if monthly usage does not exceed 2,992 gallons.

Residential Sewer Rates

Sewer service charges for all metered residential connections are computed on the basis of average water usage for 90 days during three consecutive billing periods beginning after November 15 and ending on or about March 15 of each year and are billed according to the rate schedules below.

MONTHLY SEWER SERVICE AVAILABILITY CHARGE

METER SIZE	INSIDE CITY LIMITS			OUTSIDE CITY LIMITS		
	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
5/8"	$12.98	$13.45	$14.53	$15.58	$16.14	$17.43
3/4"	14.28	14.79	15.97	17.14	17.76	19.18
1"	16.22	16.80	18.14	19.47	20.17	21.78
1 1/2"	22.71	23.53	25.41	27.26	28.24	30.50
2"	32.45	33.62	36.31	38.95	40.35	43.58
3"	64.89	67.23	72.61	77.87	80.67	87.12
4"	97.34	100.84	108.91	116.81	121.02	130.70
6"	162.23	168.07	181.52	194.68	201.69	217.83
8"	259.56	268.90	290.41	311.49	322.70	348.52
10"	389.36	403.38	435.65	467.23	484.05	522.77
12"	519.14	537.83	580.86	622.97	645.40	697.03

MONTHLY SEWER VOLUME CHARGE

Usage Gallon Block Threshold	INSIDE CITY LIMITS RATE PER 100 GALLONS			OUTSIDE CITY LIMITS RATE PER 100 GALLONS		
	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
1,496	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
2,992	0.2774	0.2874	0.3104	0.3330	0.3450	0.3726
Over 2,992	0.4162	0.4312	0.4657	0.4994	0.5174	0.5588

2017

Customers who do not have a winter record of water usage or an interim average will be billed for sewer service assuming **6,733** gallons monthly sewer usage. Customers with no San Antonio Water System water meter will be charged the Sewer Service Availability Charge based on a 5/8" meter size.

2018 and 2019

Customers who do not have a winter record of water usage or an interim average will be billed for sewer service assuming **5,895** gallons monthly sewer usage. Customers with no San Antonio Water System water meter will be charged the Sewer Service Availability Charge based on a 5/8" meter size.

AFFORDABILITY DISCOUNT

Effective for consumption on or about January 1, 2018 and January 1, 2019, respectively.

SAWS offers four levels of affordability discounts for residential customers who meet the income eligibility requirements.

To receive the discount, a customer must apply with the city of San Antonio Department of Human Services, Family Assistance Division. Program qualifications include being a SAWS customer, qualifying with DHS and meeting the federal income assistance guidelines. Eligibility is based on Household Family Size and Income at or below 125% Federal Assistance Guidelines

Affordability Program Discounts

Family Size	Annual income at or below
1	$15,175
2	20,575
3	25,975
4	31,375
5	36,775
6	42,175
7	47,575
8	52,975
Families with more than 8 persons	**Add $5,200 for each additional person**

2018 DISCOUNT BASED ON TYPE OF SERVICE PROVIDED

	Annual income at or below 50% Poverty	Annual income at or below 75% Poverty	Annual income at or below 100% Poverty	Annual income at or below 125% Poverty
Water and Sewer	$24.50	$17.00	$11.00	$8.72
Water only	11.25	8.00	5.20	4.10
Sewer only	13.25	9.00	5.80	4.62

General Class Water Service and Sewer Rates

Including Apartment, Commercial, Industrial and Municipal
Effective for consumption on or about January 1, 2018 and January 1, 2019, respectively.

For business customers, a multi-step, base-excess use structure has been developed called the General Class. The base amount for General Class customers is 100% of customer's prior year's average monthly usage. Increased unit rates apply as usage exceeds each customer's base amount.

General Class Water Rates

Monthly Service Availability and Volume Charge
The Monthly Service Availability Charge (minimum bill) for all general water service furnished through meters of the following sizes together with the Monthly Volume Charge measured per 100 gallons for water usage in every instance of service for each month or fraction thereof shall be as follows:

MONTHLY SERVICE AVAILABILITY FEE

METER SIZE	INSIDE CITY LIMITS			OUTSIDE CITY LIMITS		
	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
5/8"	$12.58	$13.80	$13.86	$15.38	$16.87	$16.94
3/4"	17.97	19.71	19.79	21.90	24.02	24.12
1"	28.74	31.53	31.66	34.91	38.30	38.45
1 1/2""	55.65	61.05	61.29	67.43	73.97	74.27
2"	87.88	96.40	96.79	106.41	116.73	117.20
3"	163.19	179.02	179.74	197.45	216.60	217.47
4"	270.74	297.00	298.19	327.45	359.21	360.65
6"	539.61	591.95	594.32	652.52	715.81	718.67
8"	862.31	945.95	949.73	1,042.61	1,143.74	1,148.31
10"	1,238.74	1,358.90	1,364.34	1,497.69	1,642.97	1,649.54
12"	2,314.31	2,538.80	2,548.96	2,797.97	3,069.37	3,081.65

MONTHLY VOLUME CHARGE

USAGE BLOCKS	INSIDE CITY LIMITS RATE PER 100 GALLONS			OUTSIDE CITY LIMITS RATE PER 100 GALLONS		
	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
Base	$0.1644	$0.1803	$0.1810	$0.2138	$0.2345	$0.2354
>100-125% of Base	0.1892	0.2076	0.2084	0.2460	0.2699	0.2710
>125-175% of Base	0.2467	0.2706	0.2717	0.3208	0.3519	0.3533
>175% of Base	0.2879	0.3158	0.3171	0.3742	0.4105	0.4121

The Base Use is defined as 100% of the prior year's average monthly consumption.

General Class Sewer Rates

MONTHLY SERVICE AVAILABILITY FEE

METER SIZE	INSIDE CITY LIMITS			OUTSIDE CITY LIMITS		
	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
5/8”	$12.98	$13.45	$14.53	$15.58	$16.14	$17.43
3/4”	14.28	14.79	15.97	17.14	17.76	19.18
1”	16.22	16.80	18.14	19.47	20.17	21.78
1 1/2”	22.71	23.53	25.41	27.26	28.24	30.50
2”	32.45	33.62	36.31	38.95	40.35	43.58
3”	64.89	67.23	72.61	77.87	80.67	87.12
4”	97.34	100.84	108.91	116.81	121.02	130.70
6”	162.23	168.07	181.52	194.68	201.69	217.83
8”	259.56	268.90	290.41	311.49	322.70	348.52
10”	389.36	403.38	435.65	467.73	484.05	522.77
12”	519.14	537.83	580.86	622.97	645.40	697.03

Customers who do not have a San Antonio Water System water meter will be charged the Sewer Service Availability Charge based on a 2" meter size.

MONTHLY SEWER VOLUME CHARGE

Usage Blocks	INSIDE CITY LIMITS			OUTSIDE CITY LIMITS		
	RATE PER 100 GALLONS			RATE PER 100 GALLONS		
	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
1,496	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
Over 1,496	0.3717	0.3851	0.4159	0.4461	0.4622	0.4992

LANDSCAPE IRRIGATION SERVICE RATES

Effective for consumption on or about January 1, 2018 and January 1, 2019, respectively.

The landscape irrigation rate applies to all "landscape irrigation" accounts. These exclude irrigation meters using water as part of their business function (e.g. process water and nurseries) as well as when used for health and safety purposes (e.g. school athletic fields). New commercial businesses are required to install separate landscape irrigation meters. Existing accounts will be retrofitted where possible. Accounts not retrofitted will be prorated based on estimated irrigation water use.

Monthly Service Availability and Volume Charge
The Monthly Service Availability Charge (minimum bill) for all irrigation water service furnished through meters of the following sizes together with the Monthly Volume Charge measured per 100 gallons for water usage in every instance of service for each month or fraction thereof shall be as follows:

MONTHLY SERVICE AVAILABILITY FEE

	INSIDE CITY LIMITS			OUTSIDE CITY LIMITS		
METER SIZE	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
5/8"	$12.58	$13.80	$13.86	$15.38	$16.87	$16.94
3/4"	17.97	19.71	19.79	21.90	24.02	24.12
1"	28.74	31.53	31.66	34.91	38.30	38.45
1 1/2""	55.65	61.05	61.29	67.43	73.97	74.27
2"	87.88	96.40	96.79	106.41	116.73	117.20
3"	163.19	179.02	179.74	197.45	216.60	217.47
4"	270.74	297.00	298.19	327.45	359.21	360.65
6"	539.61	591.95	594.32	652.52	715.81	718.67
8"	862.31	945.95	949.73	1,042.61	1,143.74	1,148.31
10"	1,238.74	1,358.90	1,364.34	1,497.69	1,642.97	1,649.54
12"	2,314.31	2,538.80	2,548.96	2,797.97	3,069.37	3,081.65

MONTHLY VOLUME CHARGE

	INSIDE CITY LIMITS Rate Per 100 Gallons			OUTSIDE CITY LIMITS Rate Per 100 Gallons		
Usage Gallon Block Threshold	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
8,229	$0.2989	$0.3279	$0.3292	$0.3885	$0.4262	$0.4279
17,954	0.4183	0.4589	0.4607	0.5439	0.5967	0.5991
162,316	0.5379	0.5901	0.5925	0.6993	0.7671	0.7702
Over 162,316	0.6873	0.7540	0.7570	0.8935	0.9802	0.9841

WHOLESALE WATER SERVICE AND SEWER RATES

Effective for consumption on or about January 1, 2018 and January 1, 2019, respectively.

WHOLESALE WATER RATES

Water service charges for all metered wholesale water connections shall be the sum of the appropriate Water Service Availability Charge and the application of the Water Monthly Volume Charges to metered water usage in every instance of service for each month or fraction thereof and are billed according to the schedule below.

MONTHLY SERVICE AVAILABILITY FEE

METER SIZE	Current 2017	Approved 2018	Approved 2019
6"	$489.24	$536.70	$538.85
8"	781.36	857.15	860.58
10"	1,122.14	1,230.99	1,235.91
12"	2,095.85	2,299.15	2,308.35

Wholesale water service will not be provided through a meter smaller than 6" in order to comply with fire-flow requirements and the "Criteria for Water Supply and Distribution in the City of San Antonio and its Extraterritorial Jurisdiction."

MONTHLY VOLUME CHARGE

	RATE PER 100 GALLONS		
USAGE BLOCKS	Current 2017	Approved 2018	Approved 2019
Base*	$0.1906	$0.2091	$0.2099
Over Base	0.5719	0.6274	0.6299

The Base Use is defined as 100% of the prior year's average monthly consumption or as agreed to by the wholesale customer an approved by SAWS Board of Trustees.

WHOLESALE SEWER RATES

Sewer service charges for all metered wholesale water connections shall be the sum of the appropriate Sewer Service Availability Charge and the application of the Sewer Monthly Volume Charges to metered water usage and are billed according to the schedule below.

MONTHLY SEWER RATE

	Current 2017	Approved 2018	Approved 2019
Sewer Service Availability Charge	$303.94	$314.88	$340.07
Monthly Volume All Usage / per 100 gallons	$0.3966	$0.4109	$0.4438

EDWARDS AQUIFER AUTHORITY PERMIT FEE

Ordinance No. 87042 provides for the establishment and assessment of a pass-through charge of the Edwards Aquifer Authority Permit Fee to all San Antonio Water System water customers. Fee is assessed on all potable water usage

Year	EAA Fee *(per 100 gallons)*
2005	0.01549
2006	0.01482
2007	0.01352
2008	0.01769
2009	0.01222
2010	0.01841
2011	0.01407
2012	0.01719
2012*	0.03901
2013	0.03425
2014	0.03295
2015	0.03311
2016	0.04259
2017	0.03612
2018	0.03533

* Increased April 1, 2012 to include funding for EAA Habitat Conservation Plan Program.

TCEQ Fee

San Antonio Water System works cooperatively with government agencies to comply with local, state and federal regulations. As the state-level environmental agency, the Texas Commission on Environmental Quality (TCEQ) generates part of its operating revenue from fees charged to utilities like SAWS.

To help recover the fees assessed by TCEQ, SAWS charges every customer a TCEQ pass-through fee.

The pass-through fee applies to all residential, commercial and wholesale accounts.

2017 TCEQ PASS-THROUGH FEE	
Service Type	**Monthly Rate**
Water Fee	$0.18
Wastewater Fee	$0.06

2018 TCEQ PASS-THROUGH FEE	
Service Type	**Monthly Rate**
Water Fee	$0.20
Wastewater Fee	$0.06

RECYCLED WATER SERVICE

Effective for consumption on or about January 1, 2018 and January 1, 2019, respectively.

Monthly Service Availability and Volume Charge
The Monthly Service Availability Charge (minimum bill) for all recycled water service furnished through meters of the following sizes together with the Monthly Volume Charge measured per 100 gallons for water usage in every instance of service for each month of fraction thereof shall be as follows:

EDWARDS EXCHANGE CUSTOMERS

MONTHLY SERVICE AVAILABILITY FEE

METER SIZE	Current 2017	Approved 2018	Approved 2019
5/8"	$11.24	$12.12	$12.34
3/4"	14.63	15.77	16.05
1"	19.06	20.55	20.92
1 1/2""	30.29	32.65	33.24
2"	44.29	47.74	48.60
3"	117.79	126.98	129.27
4"	175.09	188.75	192.15
6"	334.00	360.05	366.53
8"	503.46	542.73	552.50
10"	690.35	744.20	757.60
12"	851.78	918.22	934.75

MONTHLY VOLUME CHARGE

	Standard			Seasonal		
	RATE PER 100 GALLONS			RATE PER 100 GALLONS		
Usage in Gallons	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
Transferred Amount	$0.0296	$0.0319	$0.0325	$0.0296	$0.0319	$0.0325
All in excess of transferred amount	0.1109	0.1196	0.1218	0.1179	0.1271	0.1294

The Volume Charge "Seasonal" Rate Per 100 Gallons shall be applied to all billings beginning on or about May 1 and ending after five complete billing months on or about September 30 of each year. At all other times the Volume Charge "Standard" Rate Per 100 Gallons shall be utilized.

NON EDWARDS EXCHANGE CUSTOMERS

MONTHLY SERVICE AVAILABILITY FEE

METER SIZE	Current 2017	Approved 2018	Approved 2019
5/8”	$11.24	$12.12	$12.34
3/4”	14.63	15.77	16.05
1”	19.06	20.55	20.92
1 1/2”	30.29	32.65	33.24
2”	44.29	47.74	48.60
3”	117.79	126.98	129.27
4”	175.09	188.75	192.15
6”	334.00	360.05	366.53
8”	503.46	542.73	552.50
10”	690.35	744.20	757.60
12”	851.78	918.22	934.75

MONTHLY VOLUME CHARGE

	Standard			Seasonal		
	RATE PER 100 GALLONS			RATE PER 100 GALLONS		
Usage in Gallons	Current 2017	Approved 2018	Approved 2019	Current 2017	Approved 2018	Approved 2019
First 748,000	$0.1187	$0.1280	$0.1303	$0.1276	$0.1376	$0.1401
Over 748,000	0.1213	0.1308	0.1332	0.1332	0.1388	0.1413

The Volume Charge "Seasonal" Rate Per 100 Gallons shall be applied to all billings beginning on or about May 1 and ending after five complete billing months on or about September 30 of each year. At all other times the Volume Charge "Standard" Rate Per 100 Gallons shall be utilized.

GLOSSARY

Acre-Foot	The volume of water that would cover one acre to a depth of one foot. It is equal to 325,851 gallons.
Affordability Discount	Customer assistance program designed to provide a discount to customers who meet income eligibility requirements.
Annual Budget	A financial plan for a specified period of time (fiscal year) that assigns resources to each activity in sufficient amounts so as to reasonably expect accomplishment of the objectives in the most cost effective manner.
Aquifer	A wet underground layer of water-bearing permeable rock or unconsolidated materials (gravel, san, or silt) from which groundwater can be usefully extracted using a water well.
Balanced Budget	A budget in which planned revenues generated from various user fees and receipts are sufficient to fund planned expenditures.
Board	Board of Trustees of the San Antonio Water System
Bonds	City of San Antonio, Texas Water System Revenue and Refunding Bonds
Brackish Groundwater	Either slightly or moderately saline water containing between 1,000 and 10,000 milligrams per liter (mg/L) of total dissolved solids (TDS).
Build America Bonds	Taxable municipal bonds that carry special tax credits and federal subsidies for either the bond issuer or the bondholder. Build America Bonds were created under the American Recovery and Reinvestment Act on February 17, 2009.
Capital Improvement Program	The Capital Improvement Program (CIP) is a planning and budgeting tool that provides information about SAWS' infrastructure needs. It identifies facility and equipment requirements for sustaining, restoring and modernizing the facilities and infrastructure that support water supply and delivery, wastewater collection and treatment, and heating and cooling requirements in the SAWS service area. It also prioritizes and schedules them for funding and implementation through a multi-year plan.
Capital Expenditure	An expenditure that: • results in additions or improvements of a permanent nature • is in an amount exceeding $5,000 • adds value and has a useful life of more than one year • prolongs the life of the improved or enhanced property • is necessary to establish or implement the use of a capital asset such that the modification of other existing assets makes the new asset operational.
City	The City of San Antonio (COSA), located in the State of Texas.

City Council	The current elected officials of the City of San Antonio, as set forth in the City's Charter. Unless otherwise stated, the Mayor is considered part of the City Council.
Commercial Paper	See "Tax Exempt Commercial Paper"
CPS Energy	Municipally owned utility providing electric and gas to the San Antonio and Bexar County area - formerly City Public Service (CPS).
CPS Contract Or CPS Energy Contract	The Wastewater Contract executed on September 15, 1990 between the Alamo Conservation and Reuse District and the City Public Service Board of San Antonio.
Desalination	Brackish groundwater desalination
Debt	All indebtedness payable from Pledged Revenues and/or Net Revenues incurred or assumed by the City for borrowed money and all other SAWS financing obligations payable from Pledged Revenues and/or net Revenues that, in accordance with generally accepted accounting principles, are shown on the liability side of a balance sheet.
Debt Service Requirements	As of any particular date of computation, with respect to any obligation and with respect to any obligations and with respect to any period, the aggregate of the amounts to be paid or set aside by the City as of such date or in such period for the payment of the principal of, premium, if any, and interest (to the extent not capitalized) on such obligations.
District Special Project (DSP)	Former Bexar Metropolitan Water District
Encumbrance	Amount for which there is a legal obligation to spend in the future. A purchase order is a typical encumbrance transaction
Edwards Aquifer HCP	Edwards Aquifer Habitat Conservation Program
Fiscal Year	The twelve month accounting period used by SAWS in connection with the operation of the System, currently ending on December 31 of each year, which may be any twelve consecutive month period established by the Board, but in no event may the Fiscal Year be changed more than one time in any three calendar year period.
Gross Revenues	All revenue during such period in respect or on account of the operation or ownership of the System, excluding refundable meter deposits, restricted gifts, grants in aid of construction, any amounts payable to the Unites States as rebate, any impact fees charged by the System, payments received pursuant to the CPS Contract together with earnings and interest thereon, and earnings and income derived from the investment or deposit of money in the Construction Fund.

Junior Lien Obligations	Bonds, Previously Issued Junior Lien Obligations, and any Additional Junior Lien Obligations hereafter issued by the City, or bonds issued to refund any of the foregoing (as determined within the sole discretion of the City Council in accordance with applicable law) if issued in a manner so as to be payable from and equally and ratably secured by a junior lien on and pledge of SAWS' Net Revenues
La Niña	Weather periods of below-average sea surface temperatures across the east-central Equatorial Pacific. During a La Niña year, winter temperatures are warmer than normal in the Southeast and cooler than normal in the Northwest.
Lift Station	Lift stations are facilities designed to move wastewater from lower to higher elevation, particularly where the elevation of the source is not sufficient for gravity flow and/or when the use of gravity conveyance will result in excessive excavation depths and high sewer construction costs.
Net Revenues	Gross Revenues of the System, with respect to any period, after deducting the System's Operating and Maintenance Expenses during such period.
Operations and Maintenance Expense	All current expenses of operating and maintaining the System not paid from the proceeds of any Debt, including: (1) The cost of all salaries, labor, materials, repairs, and extensions necessary to render efficient service, but only if, in the case of repairs and extensions, that are, in the judgment of the Board, necessary to maintain operation of the System and render adequate service to the City and the inhabitants thereof and other customers of the System, or are necessary to meet some physical accident or condition which would otherwise impair the payment of Debt, 2) Payments to pension, retirement, health hospitalization, and other employee benefit funds for employees of the Board engaged in the operation or maintenance of the System, (3) Payments under contracts for the purchase of water supply, treatment of sewage, or other materials, goods or services for the System to the extent authorized by law and the provisions of such contract, (4) Payments to auditors, attorneys, and other consultants incurred in complying with the obligations of the City or the Board, (5) The payments made on or in respect of obtaining and maintaining any Credit Facility, and (6) Any legal liability of the City or the Board arising out of the operation, maintenance, or condition of the System, but excluding any allowance for depreciation, property retirement, depletion, obsolescence, and other items not requiring an outlay of cash and any interest on the Bonds or any Debt
Ordinance	Ordinance No. 75686 adopted by the City Council on April 30, 1992.

Pledged Revenues	The Net Revenues, plus any additional revenues, income, receipts, or other resources, including, without limitation any grants, donations, or income received or to be received or to be received from the United States Government, or any other public or private source, whether pursuant to an agreement or otherwise, which hereafter are pledged by the City to the payment of the Senior Lien Obligations, and excluding those revenues excluded from Gross Revenues.
Potable Water	Water fit to drink.
Senior Lien Obligations	The outstanding and unpaid obligations of the City that are payable solely from and equally and ratably secured by a prior and first lien on and pledge of the Pledged Revenues of the System.
Sewershed	An area were the rain runoff flows are determined by curbs, storm drains, settling basins, pipes and outfalls to streams.
Sanitary Sewer Overflow (SSO)	A condition whereby untreated sewage discharged into the environment prior to reaching sewage treatment facilities
Strategic Plan	Strategic plan is a process of identifying corporate goals and priorities. The Strategic Plan becomes a management tool used to help an organization ensure that members of the organization are working toward the same goals, and to assess and adjust the organization's direction in response to a changing environment. Strategic planning is a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does, and why it does it, with a focus on the future.
Subordinate Lien Obligations	The currently outstanding and unpaid obligations of the City that are payable wholly or in part from a lien on and pledge of the Net Revenues that is subordinate and inferior to the pledge thereof securing payment of the currently outstanding Senior Lien Obligations and the Junior Lien Obligations.
Swap	An exchange of streams of payments over time according to specified terms. The most common type is an interest rate swap, in which one party agrees to pay a fixed interest rate in return for receiving an adjustable rate from another party.
Tax Exempt Commercial Paper	An unsecured, short-term debt instrument maturing between 1 and 270 days, that provides the debt holders (bondholders) exemption from at least some taxes on the earnings at a local, state or federal level, or a combination thereof. The debt is usually issued at a discount, reflecting prevailing market interest rates. Tax-Exempt commercial paper is typically backed only by the issuer’s promise to pay the face amount on the maturity date specified on the note.
Watershed	An area or ridge of land that separates waters flowing to different rivers and basins.
affordability	

Water Resources Integration Program	Approximately 45 miles of water transmission pipeline and a pump station that will convey water from SAWS' Twin Oaks Aquifer Storage and Recovery (ASR), Carrizo and Brackish Groundwater Desalination programs located at the SAWS Twin Oaks Facility property in south Bexar County to new and existing facilities in western and northwestern Bexar County.
Water Supply Fee	A consumption based fee that funds the acquisition of new water sources to reduce San Antonio's dependence on the Edwards Aquifer.

GLOSSARY OF ABBREVIATIONS

AMI	Automated Metering Infrastructure
ASR	Aquifer Storage and Recovery
AVR	Abengoa Vista Ridge
AWC	Average Winter Consumption
BGD	Brackish Groundwater Desalination
BRAC	Base Realignment and Closure
CIP	Capital Improvement Program
COSA (CoSA)	City of San Antonio
CCTV	Closed circuit television
CMOM	Capacity Management Operation and Maintenance
CPMS	Capital Project Management System
CPS	City Public Service Energy
DSP	District Special Project (Formerly Bexar Metropolitan Water District)
EAA	Edwards Aquifer Authority
EAHCP	Edwards Aquifer Habitat Conservation Program
EARIP	Edwards Aquifer Recovery Implementation Program
ELS	Environmental Laboratory Services
EMT	SAWS Executive Management Team
EPA	U.S. Environmental Protection Agency
ETJ	Extraterritorial jurisdiction
FTE	Full-time equivalent
GASB	Government Accounting Standards Board
GFOA	Government Finance Officers Association
GIS	Geographic Information System
GPCD	Gallons per capita per day

GPS	Global Positioning System
HCP (EAHCP)	Edwards Aquifer Habitat Conservation Program
HVAC	Heating, ventilation and air conditioning system
I/I	Inflow and infiltration
JBSA	Joint Base San Antonio
LCRA	Lower Colorado River Authority
ITP	Incidental take Permit
LS	Lift Station
MGD	Million gallons per day
MSA	Metropolitan Statistical Area
MYFP	Multi-year Financial Plan
O&M	Operations and Maintenance
OCCC	Owner Controlled Construction Changes
OPEB	Other Post-Employment Benefits
PRV	Pressure Reducing Valve
PZ	Pressure Zone
R&R	Renewal and Replacement
SAWS	San Antonio Water System
SCADA	Supervisory Control and Data Acquisition system
SIFMA	Securities Industry and Financial Markets Association
SSLGC	Schertz-Seguin Local Governmental Corporation
SSI	Sanitary sewer improvements
SSO	Sanitary sewer overflow
SSORP	Sanitary sewer overflow reduction program
TCEQ	Texas Commission on Environmental Quality
TECP	Tax exempt commercial paper
TXDOT	Texas Department of Transportation

USFWS	U.S. Fish and Wildlife Service
WCTS	Wastewater collection and transmission system
WD	Water Delivery
WMP	Water Management Plan
WRC	Water Recycling Center
WRIP	Water Resources Integration Program
WW	Wastewater

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