San Antonio Water System

Annual Operating Budget
and
Capital Improvement Program

Fiscal Year Ending December 31, 2016 | San Antonio, Texas

ANNUAL OPERATING BUDGET AND CAPITAL IMPROVEMENT PROGRAM

FISCAL YEAR ENDING DECEMBER 31, 2016

DOUGLAS P. EVANSON
SENIOR VICE PRESIDENT/CHIEF FINANCIAL OFFICER

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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, 2015**. 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

Ivy R. Taylor
Mayor

Roberto C. Treviño
District 1

Alan E. Warrick, II
District 2

Rebecca J. Viagran
District 3

Rey Saldaña
District 4

Shirley Gonzales
District 5

Ray Lopez
District 6

Cris Medina
District 7

Ron Nirenberg
District 8

Joe Krier
District 9

Mike Gallagher
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

Ivy R. Taylor, ex Officio

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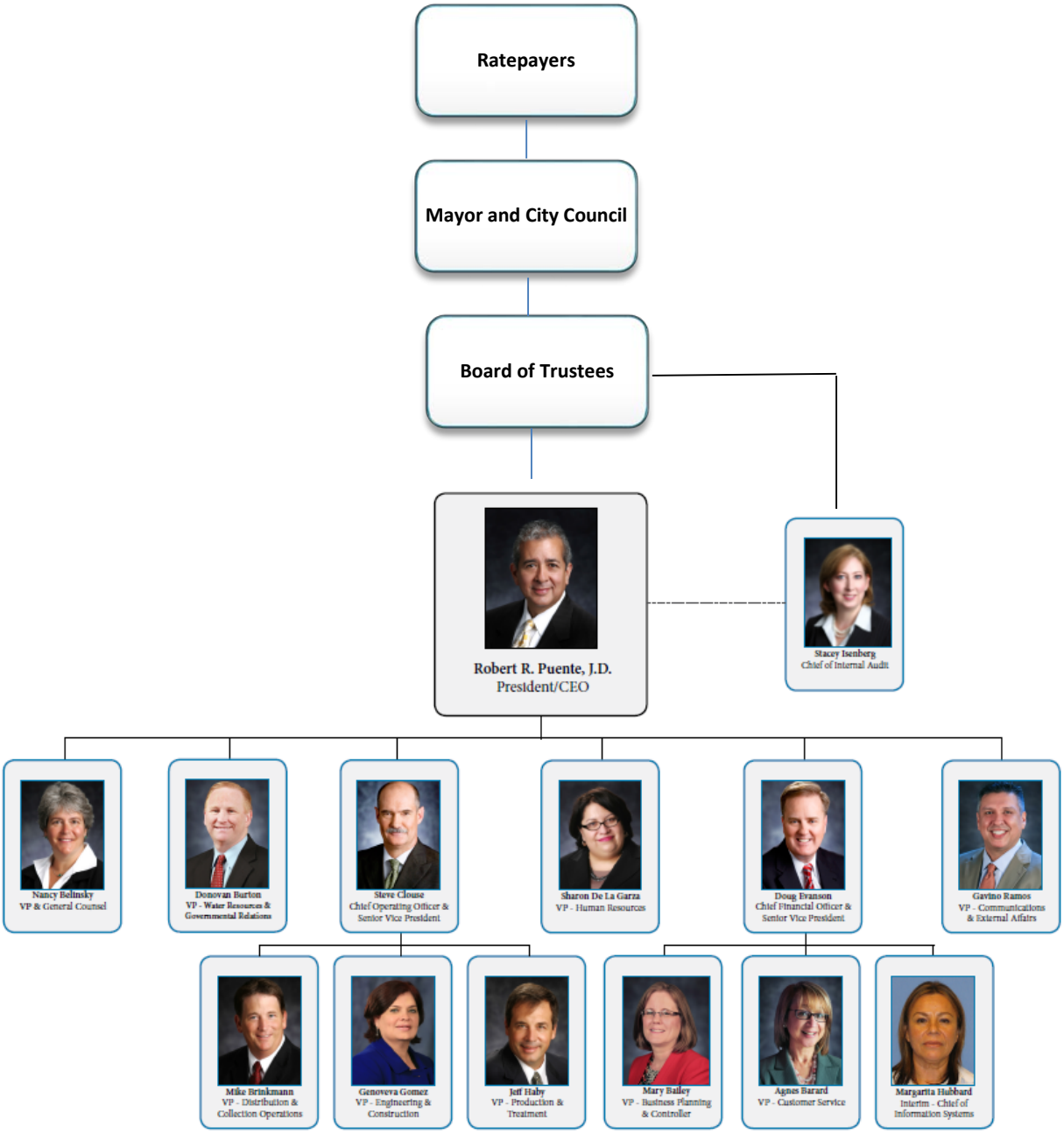
ORGANIZATION CHART



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MISSION

Sustainable Affordable Water Services

VISION

To Be Leaders in Delivering Responsible Water Services for Life

VALUES

Excellence, Integrity, and Respect

The mission and vision statements, combined with the 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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February 29, 2016

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 Ivy R. Taylor, Mayor

Honorable Mayor and Trustees:

I am pleased to present the 2016 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.

The SAWS budget process for 2016 was influenced by a number of operational and financial objectives. These objectives include the continued development and acquisition of diverse water supplies to support San Antonio's future growth, the maintenance and replacement of aging water and sewer infrastructure to include compliance with the consent decree settlement agreement with the U.S. Environmental Protection Agency (EPA), the need to demonstrate continued improvements in operational efficiency, the preservation of a strong credit profile, and the continued maintenance of affordable water and sewer rates.

To meet these objectives, rate adjustments for 2016 were approved by the Board of Trustees and the City Council resulting in a combined increase of 7.5% in the total monthly water and wastewater charges for the average SAWS residential customer, assuming use of 7,092 gallons of water and discharge of 5,668 gallons of wastewater per month. Specifically, percentage increases of 9.9% for water delivery rates, 9.3% for water supply fee rates, 5.3% for wastewater rates, and 9.6% for recycled water rates were approved to support the 2016 Annual Budget. The rate adjustments are projected to generate a total of $34.5 million in additional revenues broken down as follows: Water Supply - $10 million, Water Delivery - $13.5 million, and Wastewater - $11 million.

The 2016 Budget balances revenue requirements for the fiscal year ending December 31, 2016 with available revenues and other funding sources. Highlights of the 2016 Budget include:

- Budgeted billed water usage of 53 billion gallons, which is 4.5% less than the 55.5 billion gallons budgeted in 2015 and more accurately reflects customer usage in recent years
- Water customer growth of 1.2% and wastewater growth of 1.4% for a combined growth of 1.3%
- Total Sources of Funds of $594.5 million, which is $21.6 million or 3.8% higher than the 2015 Sources of Funds and comprised of:
  - Operating revenues totaling $541.1 million
  - Non-Operating revenues totaling $5.6 million
  - Equity transfer of $1.4 million
  - Capital recovery fees of $46.4 million
- Operations and maintenance costs of $268.9 million, reflecting a $3.1 million or 1.2% increase when compared to the 2015 Budget

- Capital Improvement Program totaling $235.7 million includes:
  - $29.1 million in Water Supply projects
  - $72.1 million in Water Delivery projects
  - $129.6 million in Wastewater projects
  - $4.9 million in Chilled Water projects
- Capital outlay of $8.2 million for the acquisition of vehicles and equipment
- Debt service and related expenses totaling $192.7 million
- Debt coverage of 2.83 times for senior lien debt and 1.45 times for total bonded debt
- Transfers to the City of San Antonio of $13.9 million

It must be noted that the budget presented here reflects the 2016 budget for SAWS only and does not include any costs related to the District Special Project (DSP) formerly known as the Bexar Metropolitan Water District or BexarMet. On November 8, 2011, the ratepayers of the former BexarMet voted to incorporate the district into SAWS. In January 2012, the final state and federal clearances were obtained, and SAWS assumed responsibility for all aspects of BexarMet.

In accordance with state law and city ordinance, in order to minimize the impact upon the existing SAWS ratepayers, when control of the BexarMet system was assumed in January 2012, SAWS began to operate it separately as the "District Special Project" (DSP). SAWS is required by law to continue to operate the system separately as DSP for a maximum five year period through 2017. As a consequence, a separate 2016 operating budget and capital improvement program for DSP was approved by the SAWS Board of Trustees. Management currently projects that the outstanding debt of the DSP will be refunded with SAWS debt during the first quarter of 2016. At that time, the DSP will be dissolved and all assets, liabilities, revenues and expenses will be transferred to SAWS. In the event that refunding occurs, an amendment to the 2016 budget will be submitted to the Board for approval that combines the budgets of SAWS and DSP.

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 2016 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

BUDGET SUMMARY

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BUDGET SUMMARY

OVERVIEW

The Adopted Budget for 2016 presents a comprehensive projection of San Antonio Water System (SAWS) operations from January 1, 2016 through December 31, 2016. This budget summary describes the key recommendations encompassing the Adopted Budget for 2016.

This summary addresses the 2016 fiscal requirements for SAWS only. The 2016 budget for SAWS District Special Project (DSP), the former Bexar Metropolitan Water District whose operations were assumed by SAWS in January 2012, will be presented separately.

The City Council adopted a combined 7.5% rate adjustment in water delivery, water supply and wastewater rates in November 2015 to support the requirements of the 2016 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			
	2014 Adopted Budget	**2015 Adopted Budget**	**2016 Adopted Budget**	**Difference 2015 vs 2016**
Sources of Funds				
Operating Revenues	$ 503.5	$ 519.7	$ 541.1	$ 21.4
Non-Operating Revenues & Draw on Equity	6.8	6.8	6.9	0.1
Capital Recovery Fees	36.0	46.4	46.4	-
Total	**$ 546.3**	**$ 572.9**	**$ 594.4**	**$ 21.5**
Uses of Funds				
Operations and Maintenance	$ 260.3	$ 265.8	$ 268.9	$ 3.1
Debt Service and Expenses	182.5	188.3	192.7	4.4
Transfer to City of San Antonio	12.9	13.3	13.9	0.6
Available for Renewal and Replacement - Restricted	36.1	46.5	46.5	-
Available for Renewal and Replacement - Unestricted	54.5	59.0	72.4	13.4
Total	**$ 546.3**	**$ 572.9**	**$ 594.4**	**$ 21.5**

The 2016 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 in order to provide for:

- Continued development and acquisition of diverse water supplies to support San Antonio's future growth,
- Maintenance and replacement of aging water and sewer infrastructure to include compliance with the consent decree settlement agreement with the U.S. Environmental Protection Agency (EPA), and
- Preservation of a strong credit profile

O&M Budget Highlights

The 2016 O&M budget totals $268.9 million compared to $265.8 million in 2015. The table below highlights the major changes between the 2015 and 2016 O&M budgets.

	$ in Millions	
2015 O&M Budget		$ 265.8
Additional positions	$ 2.2	
Brackish Desalination Plant - testing and operation	2.2	
Vista Ridge - monitoring cost	1.1	
Other O&M changes (reductions)	(2.4)	
Net increase in O&M		3.1
2016 O&M Budget		**$ 268.9**

The Adopted Budget for 2016 includes funds to increase the number of full-time equivalent (FTE) positions. These new positions will provide additional resources to address water leak repairs and EPA consent decree requirements, improve revenue collections, and increase customer call center staffing,

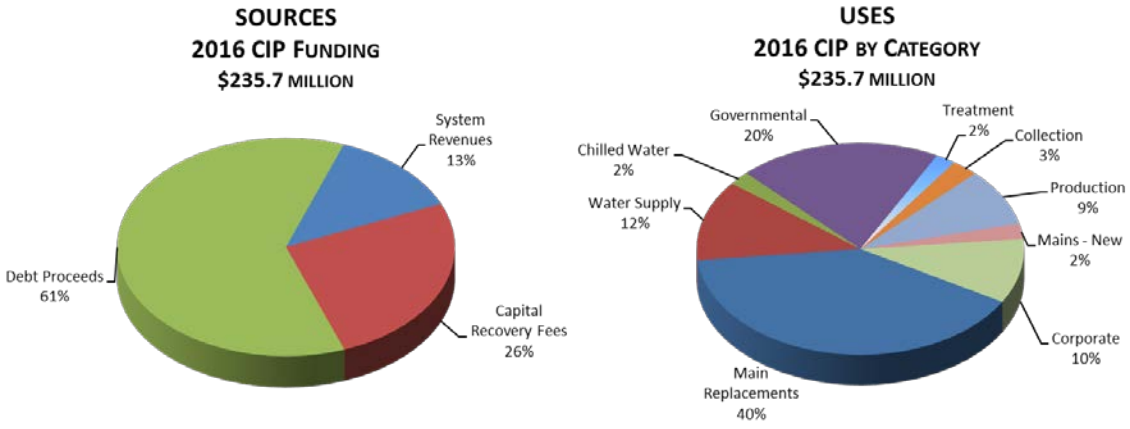
Additional O&M funds have also been provided in 2016 related to two new water supply projects. SAWS anticipates that the brackish desalination plant that is currently under construction, will become operational in the fall of 2016. SAWS is expected to spend $2.2 million in 2016 for the testing and partial year operation of the plant. An additional $1.1 million is anticipated to begin monitoring the construction of the Vista Ridge pipeline. More information about both of these water supply projects is found in the San Antonio Water System Profile section of this document under the Water Supply caption.

O&M cost reductions totaling $2.4 million were identified throughout SAWS operations to help mitigate the impact of the improvements noted above. As a result, the net increase in O&M in 2016 was only $3.1 million or 1.2%.

2016 Capital Improvement Program (CIP) Highlights

The following graphs and table summarize the CIP for 2016.

2016 CIP Sources and Uses



FIVE-YEAR CIP PROJECTION BY CATEGORY

($ in millions)

Core Business / Categories	2016	2017	2018	2019	2020	Total 2016-2020
Water Delivery						
Corporate - WD	$ 15.0	$ 1.8	$ 0.2	$ 0.2	$ 0.2	$ 17.4
Governmental	24.4	24.1	23.3	36.5	41.0	149.3
Mains - New	4.2	5.9	23.9	4.1	27.5	65.6
Main Replacements - Water	7.7	11.7	5.0	7.1	5.3	36.8
Production	20.7	40.8	78.3	18.7	22.6	181.1
Water Delivery Total	**72.1**	**84.3**	**130.7**	**66.6**	**96.6**	**450.3**
Wastewater						
Corporate - WW	8.2	1.1	0.2	0.2	0.2	9.9
Governmental	22.9	25.8	25.5	29.5	38.0	141.7
Mains - New	1.3	1.2	2.5	1.3	1.3	7.6
Main Replacements - Sewer	86.4	90.9	95.5	135.5	131.1	539.4
Collection Facilities	6.1	11.8	0.4	-	-	18.3
Treatment	4.7	10.2	49.6	14.7	5.7	84.9
Wastewater Total	**129.6**	**141.0**	**173.7**	**181.2**	**176.3**	**801.8**
Water Supply						
Regional Carrizo	0.2	1.4	-	-	-	1.6
Desalination	0.1	-	-	-	12.0	12.1
Expanded Carrizo	-	-	-	-	0.3	0.3
Corporate - WR	-	0.6	0.6	0.6	0.6	2.4
Vista Ridge Integration	28.5	114.5	2.6	0.4	-	146.0
WRIP	0.4	-	30.0	48.4	8.1	86.9
Water Resources Total	**29.1**	**116.4**	**33.2**	**49.4**	**21.0**	**249.1**
Recycled Water	**-**	**0.6**	**0.6**	**0.6**	**0.6**	**2.5**
Chilled Water	**4.9**	**2.7**	**-**	**1.0**	**4.9**	**13.5**
Grand Total	**$ 235.7**	**$ 345.0**	**$ 338.2**	**$ 298.8**	**$ 299.4**	**$ 1,517.1**

IMPACT ON RATES

2016 Rate Adjustment

To support the requirements of the 2016 O&M Budget, a 7.5% rate adjustment is required for the average residential customer (assumes 7,092 gallons of water and 5,668 gallons wastewater per month).

While the combined water delivery, water supply and wastewater rate adjustment for the average residential customer is 7.5%, separate, individual rate adjustments are needed for each of the SAWS core businesses as shown in the table below. The rate adjustment for recycled water service is not factored into the combined adjustment for the average residential customer.

Rate Category	2016 SAWS Rate Adjustments
Wastewater	5.3%
Water Delivery	9.9%
Water Supply	9.3%
Total	7.5%
Recycled	9.6%

Average based on restructured rates assuming 7,092 gals water/ 5,668 gallons sewer usage before EAA and TCEQ pass-through. Excludes City of San Antonio Storm Water Fee.

Five Year Rate Projection

To support revenue requirements beyond 2016, the Board of Trustees and the City Council further approved a rate adjustment plan affecting charges in 2017, 2018, 2019 and 2020. The maximum authorized rate percentage adjustments for 2017 and beyond are highlighted in the table below. The percentages shown represent the impact on the average SAWS residential customer's bill. In addition to the approved water supply fee rate plan for 2018-2020, SAWS anticipates that additional adjustments will be required to water delivery and wastewater rates during that same time period. An estimate of those rate adjustments has also been included in the following table. All rate adjustments shown assume that DSP is fully integrated with SAWS beginning in 2017.

	2017	2018	2019	2020
Water Supply Fee	3.20%	1.30%	4.50%	9.90%
Wastewater & Water Delivery	4.70%	4.90%	4.20%	3.80%
Total	7.90%	6.20%	8.70%	13.70%

The approved Water Supply Fee rate plan will fully fund projected costs associated with the Vista Ridge Water Supply Project as well as provide funding for Phase 2 of the Water Resources Integration Pipeline. The advance authorization of water supply fee rate adjustments through 2020 is necessary to support the issuance of debt by the Vista Ridge project developer. The final price of the Vista Ridge water may be less than the maximum price assumed

for this rate plan. Additionally, the rate adjustments assume that none of the Vista Ridge water is sold to communities along the pipeline path. If the actual price of the water is less than the maximum price assumed and/or some portion of the Vista Ridge water is sold on a wholesale basis, the actual water supply fee rate adjustment implemented will be less than the rate adjustments approved in the rate plan.

As SAWS develops its 2017 Annual Budget, staff will work with the City's Public Utilities Office to conduct a review of the 2017 final rate adjustments. The 2017 final rate adjustments will be subject to Board approval in late 2016. As long as the 2017 final rate adjustments approved by the Board do not exceed the rate plan approved by City Council for 2017 and the Public Utilities Office is in agreement with the determination of the 2017 final rate adjustments, no further action by Council will be required for the final rate adjustments to take effect on January 1, 2017. Should there be any disagreement between SAWS and the Public Utilities Office regarding the 2017 final rate adjustments, City Council may need to take additional action to determine which rates will go into effect for 2017. The same procedure will be followed for 2018, 2019 and 2020 budget cycles, respectively, to finalize the water supply fee rate adjustments for each of those fiscal years.

As reflected in the table above, additional rate adjustments to the water delivery and wastewater rates will likely be necessary for 2018 through 2020. SAWS did not submit a rate plan for water delivery and wastewater rates beyond 2017 due to uncertainties associated with capital infrastructure requirements, particularly related to the EPA consent decree. Staff will bring forward any future rate adjustments needed to these rates for 2018 and beyond at a later date for Board and Council approval.

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COMMUNITY PROFILE

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COMMUNITY PROFILE

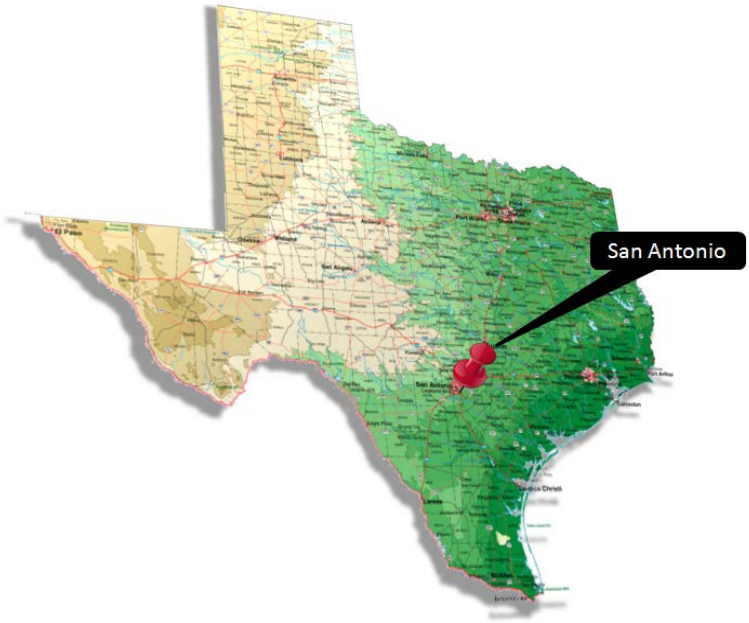


Beyond its role as a significant population and business center within the state of Texas, San Antonio possesses a deep history that dates back to the 1700's. In 1718, Spanish monks built a mission named San Antonio de Valero on the site of a Coahuiltecan Indian village. Eventually, this mission would 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 from Dallas
- 200 miles from Houston
- 140 miles northwest of the Gulf of Mexico
- 150 miles northeast of the city of Laredo on the Mexican border



San Antonio is located primarily in Bexar County, Texas, but its extraterritorial jurisdiction (ETJ) extends into Comal, Medina and Wilson counties.

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 the 2010 US census, San Antonio is the seventh most populous city in the United States and the second most populous in Texas. The San Antonio Metropolitan Statistical Area (MSA) historically has consisted of Atascosa, Bandera, Bexar, Comal, Guadalupe, Kendall, Medina, and Wilson counties. Prior to the 2010 US census, the city of New Braunfels was included in the MSA. The new San Antonio-New Braunfels MSA is estimated to contain 2.3 million people as of the year 2014. San Antonio's MSA ranks twenty-fifth 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[1] for the years shown:

Year	City of San Antonio	Bexar County	San Antonio-New Braunfels MSA
2014 (Estimated)	1,416,291	1,861,562	2,336,333
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

1 Data for 1920-1990 has been restated from the redefined eight-county MSA to the original four-county MSA. 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.

2 Provided by the San Antonio Economic Development Foundation

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

EDUCATION

Within 50 miles of San Antonio, 15 colleges and universities offer degrees in all major fields of study and educate more than 157,000 students.

Institution	Enrollment Fall 2014	Enrollment Fall 2015	Change
Texas State University	36,739	37,979	1,240
University of Texas at San Antonio	28,628	28,787	159
San Antonio College	21,280	20,638	(642)
Northwest Vista College	15,797	16,656	859
St. Philip's College	10,514	11,198	684
Palo Alto College	8,376	8,671	295
University of the Incarnate Word	8,701	8,598	(103)
Texas A&M University-San Antonio	4,521	4,564	43
St. Mary's University	3,694	3,592	(102)
Wayland Baptist University	3,851	3,592	(259)
Our Lady of the Lake University	3,173	3,334	161
Northeast Lakeview College	2,325	3,332	1,007
University of Texas Health Science Center Health at San Antonio	3,147	3,130	(17)
Trinity University	2,432	2,439	7
Texas Lutheran University	1,319	1,373	54
Total	**154,497**	**157,883**	**3,386**

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 transportation equipment and supplies, provide both scheduled and unscheduled air transportation, and operate flight schools. The industry's growth over time has been dramatic and consistent. The aerospace industry provides a $5.4 billion industry impact and employs more than 13,000 workers.

San Antonio also boasts the Alamo Area Aerospace Academy program, which works in close partnership with industry, and serves as a national model for developing a resource pipeline between local high school students and aerospace employers. The Aerospace Academy offers both classroom instruction and real-world experience through full-time paid internships provided by industry partners. Upon finishing high school, graduates of the program are ready to launch their careers with area aerospace firms, and are well on their way toward qualifying for their Federal Aviation Administration Airframe & Powerplant Mechanics' certificates.

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. As of December 2015, it is estimated that this sector employs over 134,200 people in the San Antonio Metropolitan Statistical Area. Employment in this sector has grown by over 40% since 2005.

NEW ENERGY ECONOMY

San Antonio is committed to being a leader in investment and training in the new energy economy. San Antonio is home to CPS Energy, the country's largest municipally-owned gas and electric utility company, a leader in innovation, and strategic partner to the city's efforts to grow the renewable energy sector through its New Energy Economy initiative. CPS Energy's strategic approach to low- or non-carbon emitting energy sources drove the creation of a solar manufacturing hub in San Antonio, resulting in more than $1 billion in economic impact, 800 jobs, and millions in educational investment.

San Antonio is also a national leader in green research technology and is home to long-established research entities, including the Texas Sustainable Energy Research Institute (TSERI) at the University of Texas at San Antonio. CPS Energy seed funded TSERI with a $50 million commitment, and through its New Energy Economy initiative is attracting energy-efficiency and alternative energy based companies to San Antonio.

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 87,400 people, and is one of the city's most stable, promising and significant business sectors.

INFORMATION TECHNOLOGY/CYBER SECURITY

The Information Technology (IT) industry plays a major role in San Antonio. The most recent economic impact estimate of the IT and Cyber Security industry in San Antonio measures at $8 billion. The industry itself is both large and diverse, including IT and Internet-related firms that produce and sell information technology products. San Antonio is particularly strong in information security, with the U.S. Air Force's Air Intelligence Agency, a large and growing National Security Agency presence, and the Center for Infrastructure Assurance and Security at the University of Texas at San Antonio. The city has come to be recognized as a national leader in this vital field.

The IT products sector includes manufacturers of computer and electronic equipment and components, wholesale trade (including business-to-business electronic market), retail trade, and Internet and software publishing. The Information sector is estimated to have employed 22,400 persons as of December 2015.

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 over 46,200 people in the San Antonio area as of December 2015.

In July 2015, San Antonio was 1 of 12 communities chosen by the U.S. Department of Commerce to join its Investing in Manufacturing Communities Partnership program. Communities that are part of the program receive preference when applying for federal grants to promote their local manufacturing industries.

MILITARY/DEFENSE

The military has had a significant presence in San Antonio for many years. The growth in new missions and significant construction activities brought about by the 2005 Base Realignment and Closure (BRAC), completed in September of 2011, strengthened San Antonio's role as a leading military research, training, and education center. One of the major outcomes of BRAC 2005 was the creation of Joint Base San Antonio ("JBSA" or "Joint Base") which is the largest joint base in the United States. JBSA consolidates all the base support functions, real property, and land for Lackland AFB, Randolph AFB, and Fort Sam Houston (including Camp Bullis) under the 502nd Air Base Wing. The Joint Base includes over 55,000 acres, supports 80,000 personnel, has a plant replacement value of $32 billion, and an annual budget of $800 million. Over 132,000 personnel are trained at Joint Base facilities every year.

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 2008-2011, job growth has been steadily increasing since 2011. The increase in employment was 3.3% in 2014 and 3.5% in 2015. While not immune to the challenges being faced within the global economy, the diversity of the San Antonio economy provides some stability through 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 2015, the San Antonio MSA unemployment rate was 3.5% (preliminary estimate), while the nation's was 5%.

A summary of San Antonio's nonagricultural employment by industry for the preceding ten years is as follows:

San Antonio MSA Non-Farm Employment by Industry (2006 - 2015)
as of December of each year

	2015 *	2014	2013	2012	2011	2010	2009	2008	2007	2006
Natural Resources, Mining and Construction	60,400	55,800	50,900	47,000	44,000	45,200	48,600	55,500	56,200	51,000
Manufacturing	46,200	45,700	46,300	46,900	46,400	45,300	43,500	45,600	49,000	49,800
Trade, Transportation and Utilities	174,100	171,000	165,600	159,000	153,700	149,400	148,500	154,600	157,600	154,600
Information	22,400	21,900	21,500	20,500	19,700	18,400	18,600	21,000	21,800	22,200
Financial Activities	87,400	83,100	78,800	76,300	71,900	69,800	67,100	67,400	66,700	65,700
Professional and Business Services	131,100	123,400	117,300	114,100	108,200	104,300	105,800	107,800	110,800	107,300
Educational and Health Services	155,200	149,200	142,200	138,700	137,100	131,900	127,100	122,900	117,400	112,300
Leisure and Hospitality	119,600	114,900	114,200	110,800	105,600	101,200	97,500	99,300	95,900	91,500
Other Services	35,400	34,700	34,100	33,200	31,600	31,800	30,900	30,700	30,200	28,500
Government	167,100	165,600	163,700	162,200	161,600	164,200	161,900	158,200	154,100	150,000
Total Non-Farm Employment	998,900	965,300	934,600	908,700	879,800	861,500	849,500	863,000	859,700	832,900

Source: U.S. Bureau of Labor Statistics
** Preliminary as of Dec. 2015*

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.

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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.

BEXARMET

On January 28, 2012, SAWS assumed the operational control and management of the Bexar Metropolitan Water District (BexarMet). BexarMet was created by the 49th Texas Legislature in 1945 to serve anticipated growth in Bexar County. From an initial account base of 4,765 primarily residential accounts, it grew to more than 92,000 residential and commercial accounts served in 2011. Claims of alleged mismanagement, inadequate service and excessive rates resulted in the passage of Senate Bill 341 (SB 341) by the Texas Legislature in May, 2011. The primary component of SB 341 required an election by BexarMet ratepayers to vote on the dissolution of BexarMet and consolidation with SAWS. The election was held in November 2011 and the BexarMet ratepayers voted in favor of dissolution. In preparation for this vote in October 2011, the City Council adopted an ordinance creating a "special project", as authorized by SB 341, where the assumed BexarMet would be treated as a component unit of the City of San Antonio, to be known as the San Antonio Water System District Special Project (DSP). In accordance with the ordinance and as allowed by SB 341, for financial statement purposes, the DSP remains a separate entity but will be fully integrated into SAWS within the timeframe specified by SB 341. As a result, unless otherwise stated, the activities of the DSP are not accounted for in this document.

BACKGROUND

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 10,000 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 AREAS

WATER DELIVERY AND WASTEWATER

SAWS' water delivery service area currently extends over approximately 662 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.

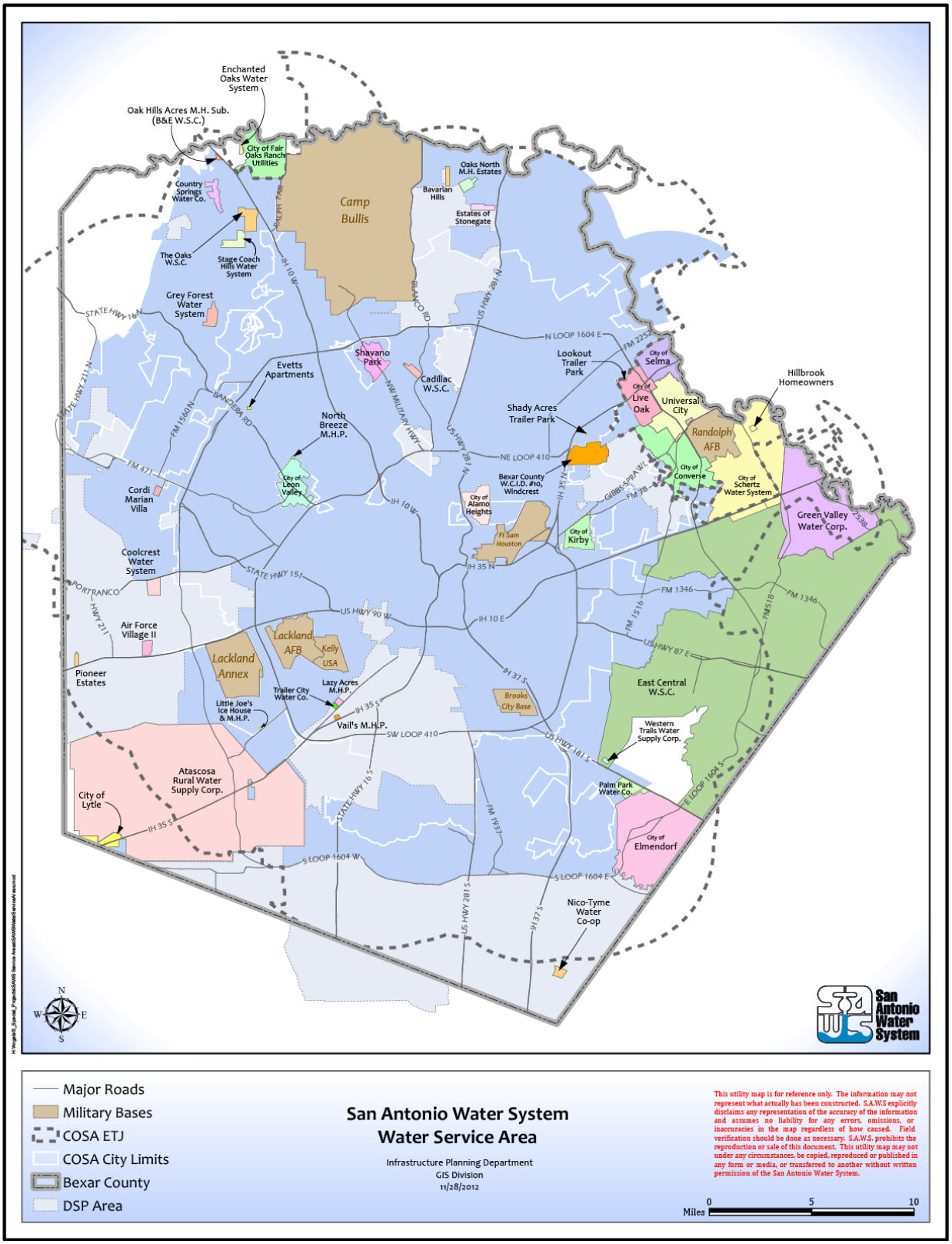
SAWS provides potable water service to residential, commercial, multifamily, industrial and wholesale accounts. As of December 31, 2015, the water delivery system provides potable water service to 378,365 customer connections.

The water delivery system currently utilizes 40 elevated storage tanks and 43 ground storage reservoirs with a combined storage capacities of 220.6 million gallons. As of December 31, 2015, SAWS had installed 5,315 miles of distribution mains, ranging in size from 4 inches to 61 inches in diameter. As of December 31, 2015, SAWS was equipped with 29,530 fire hydrants in service.

A larger and 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 630 square miles. SAWS also coordinates with the City of San Antonio for wastewater planning the City's total planning area, its extraterritorial jurisdiction (ETJ), of approximately 1,109 square miles. The population for this planning area is approximately 1.6 million people. As of December 31, 2015, SAWS provided wastewater services to 429,609 customer connections.

The wastewater system is composed of approximately 5,322 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

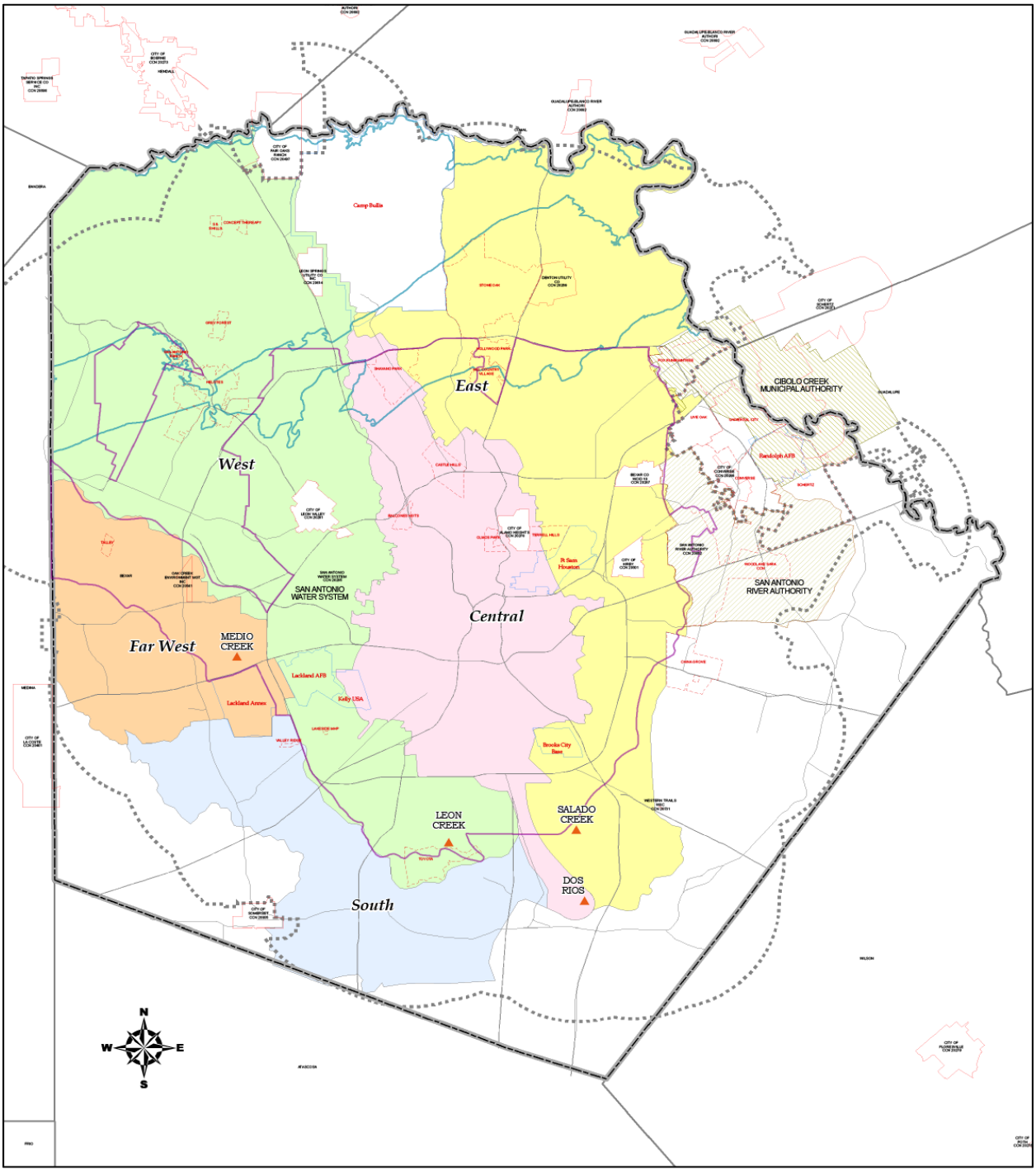


Key operating and capital indicators of the water system for years 2005-2014 are provided in the table below:

	Fiscal Year									
	2014	**2013**	**2012**	**2011**	**2010**	**2009**	**2008**	**2007**	**2006**	**2005**
Rainfall (Inches)	27.63	32.27	39.40	17.58	37.39	30.69	13.76	47.25	21.34	16.45
Customers/Connections (a)	373,920	367,408	365,099	360,281	356,546	352,059	348,834	344,168	336,434	325,944
Water Pumpage (Million Gallons)										
Annual Water Pumped (d)	69,834	69,020	70,338	74,627	69,591	68,191	71,785	63,395	68,411	63,632
ASR Recharge (b) (d)	1,569	2,629	3,742	3,928	8,320	5,542	3,535	6,582	2,951	4,396
ASR Production (b) (d)	6,374	4,793	1,446	4,309	556	472	407	141	2,083	305
Annual Pumped for Usage (d)	68,265	66,391	66,596	70,699	61,272	62,649	68,250	56,813	65,460	59,236
Average Daily (d)	191.3	189.1	192.2	204.5	190.7	186.8	194.9	169.2	181.8	172.6
Maximum Daily (d)	226.50	270.2	264.0	265.6	314.0	273.8	299.0	225.6	280.4	279.3
Metered Usage (Million Gallons)	57,261	55,108	55,320	59,133	52,578	55,295	58,828	49,511	57,724	55,005
Available Water Supply (Million Gallons)										
Permitted Edwards Aquifer rights (e)	83,126	82,902	84,822	84,640	85,035	81,923	71,738	69,505	69,505	65,007
Non-Edwards supply (f)	14,001	11,965	7,431	6,098	6,132	6,256	6,256	4,171	4,171	1,140
Stored in ASR (d) (g)	23,959	28,764	30,928	28,632	29,013	21,249	16,179	13,051	6,610	5,742
Total water available for production	121,086	122,484	123,080	119,393	120,077	109,320	94,766	86,768	80,210	71,814
Number of Wells in Service	147	149	143	139	144	140	136	126	113	102
Overhead Storage Capacity (Million Gallons)	101.8	91.3	81.2	81.2	73.9	66.5	65.2	64.2	69.0	60.0
Total Storage Capacity (Million Gallons)	220.6	197.4	183.7	184.1	180.8	166.2	165.0	164.0	166.0	142.0
Miles of Water Main Installed	56	80	57	78	106	97	161	167	143	103
Miles of Water Main Replaced and Abandoned	11	30	22	26	36	33	32	19	22	23
Miles of Water Main in Place	5,117	5,072	5,022	4,988	4,936	4,866	4,802	4,673	4,525	4,404
Water Main Breaks (c)	2,018	1,863	2,128	3,397	1,475	3,212	2,594	1,392	3,073	2,577
New Services Installed	5,698	5,241	7,520	4,725	4,208	3,590	7,565	17,274	13,903	12,730
Fire Hydrants Installed (Net of Hydrants removed)	430	409	348	451	516	644	951	1,040	752	521
Fire Hydrants in Place	28,753	28,323	27,914	27,566	27,115	26,599	25,955	25,004	23,964	23,212

(a) Number of customers at end of fiscal year.
(b) SAWS opened its Aquifer Storage & Recovery (ASR) facility in 2004. Prior to this time, all water pumped was pumped for usage.
(c) Amount reported is for the calendar year.
(d) Amounts have been revised from previously published data.
(e) Based on permitted rights authorized by the Edwards Aquifer Authority (EAA) as of December 31st. Authorized amounts prior to 2004 are not presented as they reflect a high level of variability related to EAA's permitting process. Under current EAA rules, authorized amounts are subject to reductions of 20% to 44% during drought conditions.
(f) Includes water available under contracts to purchase or produce water from the Trinity Aquifer, Carrizo Aquifer and Canyon Lake. There are no legally imposed reductions in these supplies during drought; however, production of water from the Trinity Aquifer is physically limited during periods of drought due to low aquifer levels.
(g) Represents net amount stored in ASR (Recharge - Net production)

Wastewater Service Area



BOUNDARIES
- Bexar County Line
- Incorporated Towns and Cities
- City San Antonio's ETJ Line
- Edwards Recharge Zone

SEWERSHEDS
- Central
- East
- Far West
- South
- West

SERVICE AREAS
- Recycle Water Treatment Plants
- By Others
- By SAWS
- SAN ANTONIO RIVER AUTHORITY(SARA)
- CIBOLO CREEK MUNICIPAL AUTHORITY

SAN ANTONIO WATER SYSTEM'S WASTEWATER CCN
INFRASTRUCTURE PLANNING DEPARTMENT
GIS MAPPING DIVISION
06/16/2010

San Antonio Water System

0 8,300 16,600 24,900
Feet

Key operating and capital indicators of the wastewater system for years 2005 through 2014 are provided in the table below:

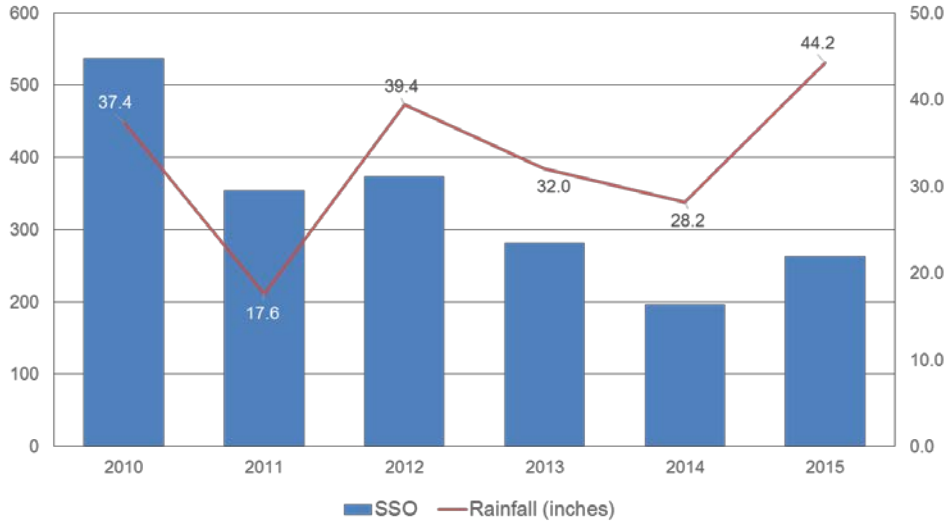
	Fiscal Year									
	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Customers/Connections (a)	424,257	416,801	412,275	405,119	400,096	395,161	389,894	379,962	368,401	354,878
Effluent Volumes For Major Facilities (million gallons per day)										
Dos Rios										
Permit Flow	125.00	125.00	125.00	125.00	125.00	125.00	125.00	125.00	125.00	125.00
Average Annual Flow	85.20	78.47	79.04	74.97	86.47	74.37	76.53	93.34	64.00	59.58
Maximum Monthly Average Flow	91.19	86.78	87.01	76.63	103.66	89.36	81.43	131.98	74.37	73.98
Leon Creek										
Permit Flow	46.00	46.00	46.00	46.00	46.00	46.00	46.00	46.00	46.00	46.00
Average Annual Flow (two outfalls)	28.98	37.68	38.62	35.07	38.83	34.99	34.71	40.26	32.63	34.48
Maximum Monthly Average Flow (two outfal	39.03	44.16	43.77	36.46	45.30	64.74	38.62	55.49	34.28	41.79
Medio Creek										
Permit Flow	16.00	16.00	16.00	16.00	16.00	16.00	16.00	8.50	8.50	8.50
Average Annual Flow	7.08	7.76	7.29	6.83	7.53	6.32	5.87	6.94	5.13	5.21
Maximum Monthly Average Flow	7.49	8.45	8.14	6.97	8.71	7.45	6.57	10.51	5.63	6.58
Salado (b)										
Permit Flow	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	46.00	46.00
Average Annual Flow	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11.38	33.80
Maximum Monthly Average Flow	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	21.11	40.40
Total										
Permit Flow	187.00	187.00	187.00	187.00	187.00	187.00	187.00	179.50	225.50	225.50
Average Annual Flow	121.26	124.26	124.95	116.87	132.83	115.68	117.11	140.54	113.14	133.07
Maximum Monthly Average Flow	137.71	139.40	138.92	120.06	157.67	161.55	126.62	197.98	135.39	162.75
Amount Treated Annually (millions of gallons)	50,689	50,076	49,055	49,918	48,151	51,987	50,347	49,218	53,268	49,287
Amount Treated Peak Day (millions of gallons)	121	221	199	160	258	194	174	294	169	212
Miles of Sewer Main Installed	45	37	38	45	33	84	125	137	132	74
Miles of Sewer Main In Place (c)	5,283	5,238	5,200	5,163	5,118	5,085	5,001	4,877	4,739	4,607
Number of Manholes Installed	980	901	856	1,080	659	1,514	2,922	2,775	2,661	1,538
Number of Manholes in Place	100,017	99,037	98,136	97,280	96,200	95,541	94,027	91,105	88,330	85,669
Number of Lift Stations	156	155	159	159	158	164	162	167	164	150

(a) Number of customers at end of calendar year.
(b) The Salado treatment plant was closed in August 2006 and all wastewater flows diverted to the Dos Rios treatment facility.
(c) Prior to 2004, the miles of sewer main in place were estimated. Utilizing GPS tracking, more accurate data was obtained and maintained starting in 2004.

Sewer Management Plan

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. During the last few years SAWS has significantly reduced the number of SSOs, as shown in the following chart. While the number of SSOs increased from 2014 to 2015 due to heavy rainfall during the year, the total number of SSOs in 2015 was significantly less than 2010 – another comparatively wet year.

Sanitary Sewer Overflows
2010-2015



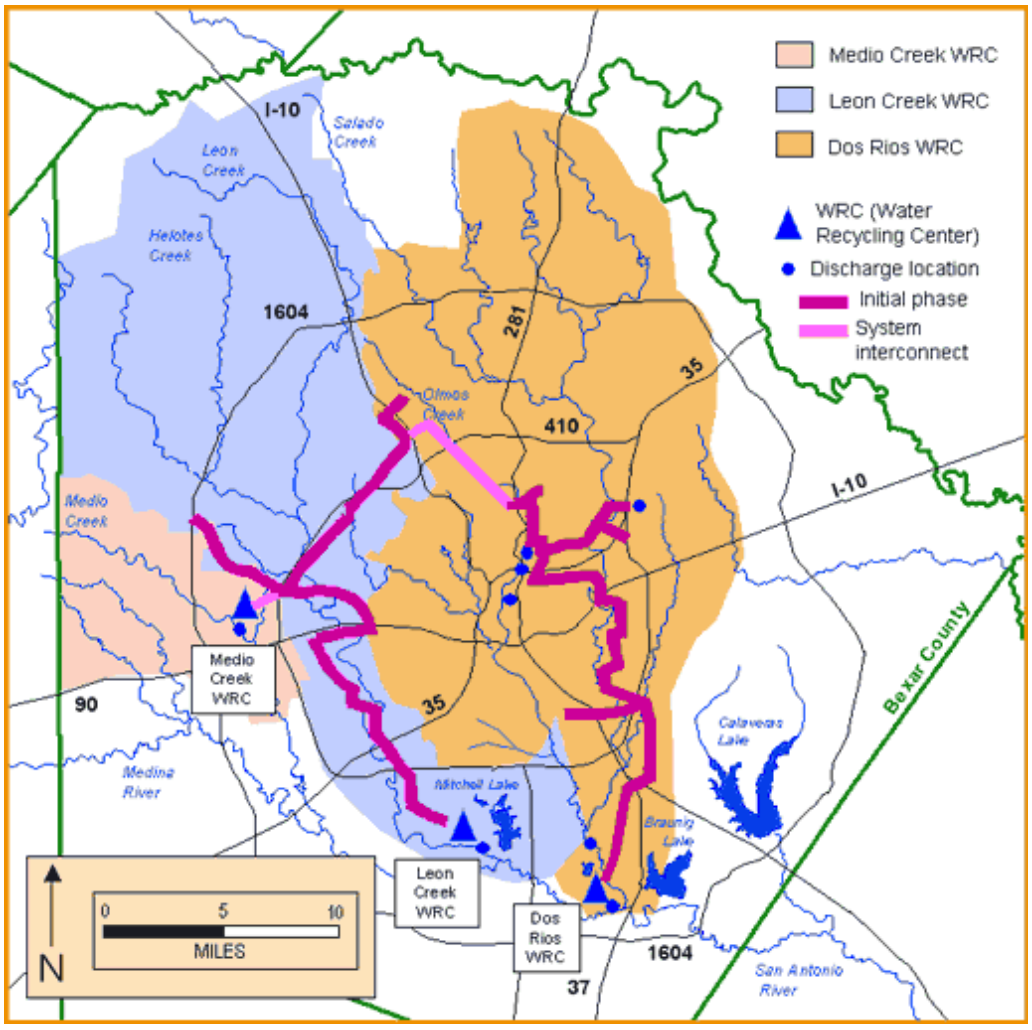
The 2016 SAWS budget includes funding for sewer management programs that are recognized as industry best practices designed to reduce the number of SSOs. Specifically, the 2016 O&M budget includes $33.1 million in operating costs related to program management, televising and cleaning sewer mains, capacity assessment activities, and repair of sewer infrastructure. Additionally, $92.5 million in capital project investments are planned in 2016 to rehabilitate aging sewer infrastructure and address system capacity issues.

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 (formerly Kelly USA) and provide chilled water to large industrial customers that include Lockheed Martin and Boeing Aerospace. SAWS' chilled water producing capacity places it as one of the largest producers of chilled water in south Texas.

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 north/south transmission lines, running east and west. 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 125 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.


Medio Creek WRC
Leon Creek WRC
Dos Rios WRC
WRC (Water Recycling Center)
Discharge location
Initial phase
System interconnect
I-10
Salado Creek
Leon Creek
Helotes Creek
1604
281
35
Olmos Creek
410
I-10
Medio Creek
Medio Creek WRC
90
35
Medina River
Mitchell Lake
Calaveras Lake
Braunig Lake
Bexar County
Leon Creek WRC
Dos Rios WRC
1604
37
San Antonio River
N
0
5
10
MILES

WATER SUPPLY

Historically, San Antonio has 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 and ensure that 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' "Water Resource Plan". In November 1998, the City Council accepted the Water Resources Plan "Securing our Water Future Together" as the first comprehensive widely supported water resource plan for San Antonio. The 1998 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, known as the Water Supply Fee, for water supply development and water quality protection.

The 1998 Water Resources Plan is now referred to as *The Water Management Plan* and has been updated several times with the latest update completed in 2012. SAWS is in the process of updating the 2012 Water Management Plan and expects to have completed the latest update in 2016. The 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 and DSP, separately and combined:

Available Sources of Water Supply Budgeted for 2016 Under Non-Drought Conditions
(Acre-Feet)

Source	SAWS	DSP	Total
Edwards Aquifer	258,724	33,030	291,754
Recycled Water (CPS Energy Power Plants)	50,000		50,000
Recycled Water (Direct Customers)	25,000		25,000
Regional Carrizo	10,870		10,870
Canyon Regional Water Authority		5,300	5,300
Medina Surface Water		13,000	13,000
Canyon Lake	9,000		9,000
Local Carrizo	9,900		9,900
Trinity Aquifer	6,881	5,381	12,262
Brackish Groundwater Desalination	7,841		7,841
Total	**378,216**	**56,711**	**434,927**

Edwards Aquifer

The largest amount of SAWS and DSP water holdings reside in the Edwards Aquifer. In 2016, SAWS and DSP combined have budgeted for a total inventory of 291,754 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%. In 2015, SAWS and DSP's EAA permitted water rights were reduced by 19.7%.

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 southeast 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' demands. At December 31, 2015, SAWS had approximately 89,000 acre-feet of water stored in ASR.

In connection with the EAA's directive by the Texas legislature to ensure 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.

The primary parties to the EARIP included the EAA, SAWS, the City of New Braunfels, the City of San Marcos and Texas State University. These parties worked through this process along with USFWS and other stakeholders through an EARIP Steering Committee over a four year period to develop a Habitat Conservation Plan (HCP). The HCP 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 HCP includes the use of SAWS ASR facility in conjunction with other measures to contribute to modeled spring flow protections during severe droughts. After the approval of the HCP, SAWS and the EAA entered into an Intergovernmental Contract in August 2013 that details the implementation of the strategy. 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 stored on behalf of the region will be forborne from SAWS Edwards Aquifer production during specified triggers during drought similar to Texas' drought of record. 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 for the incremental cost of storing HCP water in ASR and withdrawing that water during drought of record conditions to cover its forbearance requirements under the agreement.

Regional Carrizo

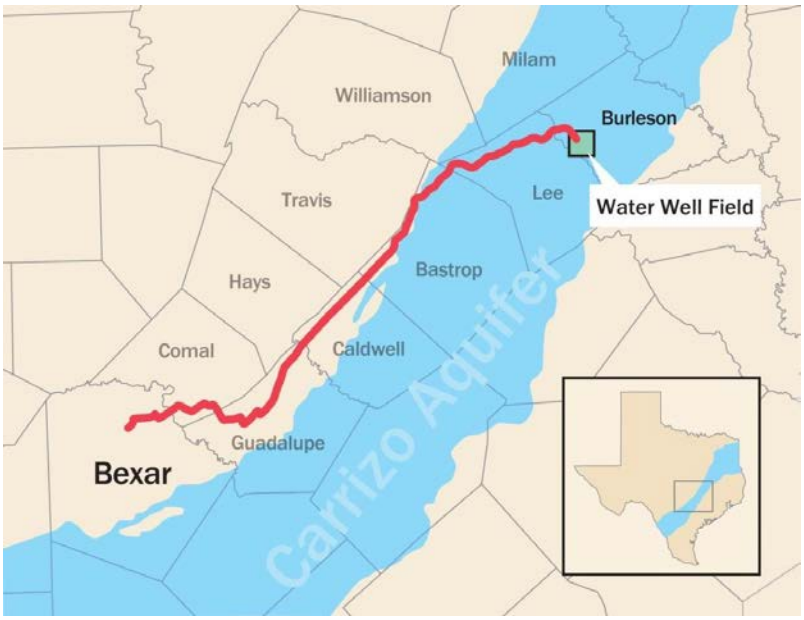
As part of diversifying SAWS' water portfolio, a regional partnership with Schertz-Seguin Local Government Corporation (SSLGC) was formed. This regional partnership has helped to secure SAWS' largest firm non-Edwards supply to-date. The Regional Carrizo project is located in Gonzales County, approximately 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 2016, this project is expected to yield 10,870 acre-feet of water to SAWS customers, from the Carrizo Aquifer in western Gonzales County. Under the terms of the contract with SSLGC, SAWS has the ability to purchase additional water from SSLGC if available. SAWS has elected not to purchase any additional water from SSLGC in 2016 as SAWS is expected to have access to water supplies during the year sufficient to meet customers' demand.

Brackish Groundwater Desalination

In August 2011, the SAWS Board of Trustees approved proceeding on the Brackish Groundwater Desalination (BGD) program. The BGD program involves the production of brackish water from the Wilcox Aquifer in southern Bexar County and treatment to drinking water quality standards. Design was completed in early 2014 and construction of the treatment plant, pipelines, remaining wells, and other facilities began in mid-2014, with the plant commissioning/testing expected in 2016. Full operation will begin in late 2016, providing 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; making it the nation's largest inland desalination plant.

FUTURE SOURCES OF WATER SUPPLY

Vista Ridge – Regional Water Supply



In October 2014, in a unanimous vote, San Antonio City Council approved a contract with the Abengoa Vista Ridge (AVR). AVR is a partnership between Abengoa and BlueWater Systems, which has assembled 3,400 leases for water rights with local landowners in Burleson and Milam counties. AVR will develop the infrastructure necessary to deliver up to 50,000 acre-feet of water each year to San Antonio, including a 142 mile pipeline. At the end of the 30 year term of the contract, all infrastructure is transferred to SAWS with SAWS maintaining access to the groundwater leases for an additional 30 years. Under the terms of the contract, San Antonio will not pay for any water that is not made available for delivery, shifting major regulatory risks to the private developer instead of San Antonio ratepayers.

AVR has until May 2017 to arrange financing, followed by 42-54 months to construct the project. SAWS payments to AVR will not begin until the project is delivering water. However, once AVR achieves financial closure, SAWS will need to construct approximately $147 million of improvements to its infrastructure to integrate the water received from AVR into the SAWS distribution system.

Conservation

The cost of developing and acquiring additional water supplies to meet the increased water demands of San Antonio's projected future population is extremely 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. SAWS treats reductions in customer demand as a result of these programs as a source of water for long-term planning purposes. SAWS focus on reducing customer demand through conservation programs will not waiver.

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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 proprietary 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 inflow 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 recorded 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

Proprietary funds distinguish operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services in connection with a proprietary fund's principal ongoing operations. SAWS' principal operating revenues 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. Employee benefits 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 operating and maintenance costs of SAWS 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 formally reviewed by the CFO and quarterly by the Executive Management Team.

All funds are appropriated in the 2016 annual operating budget. Capital Improvement Program financial projections are not appropriated. Amendments to the 2016 annual operating budget which reduce the unrestricted transfer to the Renewal and Replacement Fund must be approved by the Board of Trustees. Budget transfers between units may be approved administratively as long as total aggregate appropriations do not increase.

CORE BUSINESSES

SAWS operations are segregated into four core businesses as follows:
Water Supply – the functions related to the development and provision of additional water resources
Water Delivery – the functions of distributing potable water to customers
Wastewater – the functions of collecting and treating wastewater from the user customer
Chilled Water – the functions related to providing chilled water to specific SAWS customers

RESTRICTED RESOURCES

SAWS' policy generally is to use restricted resources first when an expenditure is made for purposes for which both restricted and unrestricted resources are available.

CASH EQUIVALENTS

SAWS considers investments with an original maturity of three months or less at the time of purchase and all bank certificates of deposit 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; bi-load money market mutual funds; investment pools; 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. Investments other than money market investments are reported at fair value. Under the provisions of GASB Statement No. 31, money market investments, including US Treasury and agency obligations, with remaining maturity at time of purchase of one year or less are reported at amortized cost.

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.

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, overhead, 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. Overhead consists of internal costs that are clearly related to the acquisition of capital assets. 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 fair market value at date of donation. Maintenance, repairs, and minor renewals are charged to operating expense; major plant replacements are capitalized. Capital assets are depreciated and property under capital lease is amortized 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 using rates estimated to fully depreciate the costs of the asset group over their estimated average useful lives. 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 and may be used only for additional infrastructure capacity or to reimburse SAWS for costs previously incurred to provide excess service 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 grants credits to the developer equal to the estimated fair market value of the excess capacity of the infrastructure contributed. These credits may only be used to offset future capital recovery fees owed by the developer.

COMPENSATED ABSENCES

SAWS' policy is to accrue employee vacation pay as earned 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 has been recorded for the estimated amount of eventual loss associated with claims arising prior to the end of the period including incurred but not reported claims.

FUNDS FLOW

In accordance with City of San Antonio, Texas Ordinance No. 75686 requirements, Gross Revenues shall be pledged and appropriated to the extent required for the following uses and in the order of priority shown to:

1. Pay maintenance and operating expenses, including a two-month operating reserve
2. Deposit into Debt Service fund the amount required for Senior Lien debt obligations
3. Deposit into Reserve Fund
4. Deposit into Debt Service Fund for Junior Lien debt obligations
5. Deposit into Debt Service Fund for Subordinate Lien debt obligations
6. Deposit into Debt Service Fund for Inferior Lien debt obligations
7. Equal payments to the City of San Antonio's General Fund and to SAWS Renewal and Replacement Fund

Gross Revenues are defined by Ordinance No. 75686 as all revenue of SAWS excluding capital contributions, payments received under the CPS Energy contract, interest earned on Project Fund investments, and Federal subsidies received related to Build America Bonds.

PAYMENTS TO THE CITY'S GENERAL FUND

In accordance with the City of San Antonio, Texas Ordinance No. 75686 requirements, SAWS is required to make certain payments to the City of San Antonio each month after making all other payments required by the Ordinance. The amount of the payment is determined by City Council 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 financial statements.

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 maintenance and operating expenses
2. Produce Net Revenues sufficient to pay:
    a. 1.25 times the annual debt service requirements on senior lien obligations,
    b. Principal and interest due on any junior lien, subordinate lien and inferior lien obligations and

3. Pay amounts required to be deposited in any reserve or contingency fund created for the payment and security of bond obligations
4. Fund transfers to the City of San Antonio, and
5. Pay any other debt payable

Net Revenues are defined in Ordinance No. 75686 as Gross Revenues after deducting maintenance and operating expenses.

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

The purpose of this fund is to accumulate and maintain 100% of the maximum annual debt service requirement on senior lien obligations. SAWS may provide Surety policies equal to the required reserve amount in lieu of depositing cash into the 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 all earnings on Project Fund investments. 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 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 at least 1.50 times Total Annual Debt Service to ensure the required debt coverage in times of revenue fluctuations. Over the next five years, SAWS plans to increase debt coverage to a minimum of 1.70 to 1.75 times Total Annual Debt Service.
- 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.
- Including the amounts maintained in the operating reserve above, SAWS' target is to maintain 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 bond issued or with unrestricted resources.

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 the SAWS financial position in order to meet the short-term and long-term operational and strategic objectives of SAWS. 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 the strategic, operational, and financial needs and resources of the system.

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 the 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 on cash flow probabilities and risk; investment and financing opportunities and constraints; and strategic plan implementation goals and targets, financial forecasts are made in the MYFP to assist executive management in the allocation of the resources of the system.

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 strategic outcomes of the system and provide opportunities for new strategies and program development to allocate resource costs for various growth and replacement scenarios of the system.

The fundamental structure of the MYFP is the calculation of the flow of funds and rate adjustment requirements based on the enabling ordinance of SAWS, Ordinance 75686 adopted in 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 core business of SAWS: Water Supply; Water Delivery; Wastewater; and Chilled Water.

ANNUAL BUDGET PROCESS

The annual budget process begins with updating the MYFP. As a 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
- Level at which capital investment can be made
- Future commitments and resource demands
- Other variables that might 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 the customer bills are evaluated relative to the income of the system's customers and price competitiveness with other utilities. Key financial statistics include: debt coverage ratios on all debt; percentage of capital financed with cash; and overall level of cash balances.

2016 BUDGET PROCESS

The annual financial planning process begins with identifying SAWS' priorities for the short-term. The focus of the 2016-2020 financial forecast is in the following areas:

- Continued development and acquisition of diverse water supplies to support San Antonio's future growth,
- Maintenance and replacement of aging water and sewer infrastructure to include compliance with the consent decree settlement agreement with the U.S. Environmental Protection Agency (EPA),
- Continued improvements in operational efficiency,
- Preservation of a strong credit profile, and
- Continued maintenance of affordable water and sewer rates.

Revenue Forecast

One of the most important strategies of the financial planning environment 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 much greater 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 2016 revenue forecast.

Revenue Source	Drivers
Operating Revenues	Strong El Nino forecast for rainy 2016 winter and spring
	Effect of long-term sustained drought restrictions and conservation
	2014/2015 usage per customer and average winter consumption significantly below historical levels and 2015 budget
Non-operating Revenues	Continued low interest rate environment
Capital Recovery Fees	Utilized for capital funding - dependent upon development activity

Operations & Maintenance Budget

Although SAWS and DSP are separate legal entities with separate budgets, their operations have been merged and they are managed as a single entity. The 2016 budget process, therefore, involved the development of a single budget for the combined SAWS/DSP operating expenses. Through a cost allocation process, separate operating budgets for each entity were ultimately produced.

Current Services Level – The 2016 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 2016. The Current Services Level budget served as the baseline for all subsequent 2016 budget changes and was developed from the following components:

- Existing employee wage and benefit costs
- Estimated 2016 utility costs including provision for any electric and gas utility rate increases
- Estimated 2016 fuel costs
- Elimination of one-time 2015 budgeted expenses

Improvements and/or Mandates - Departments requiring additional funding for improvements or newly identified mandates that exceeded the 2016 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.
- 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.

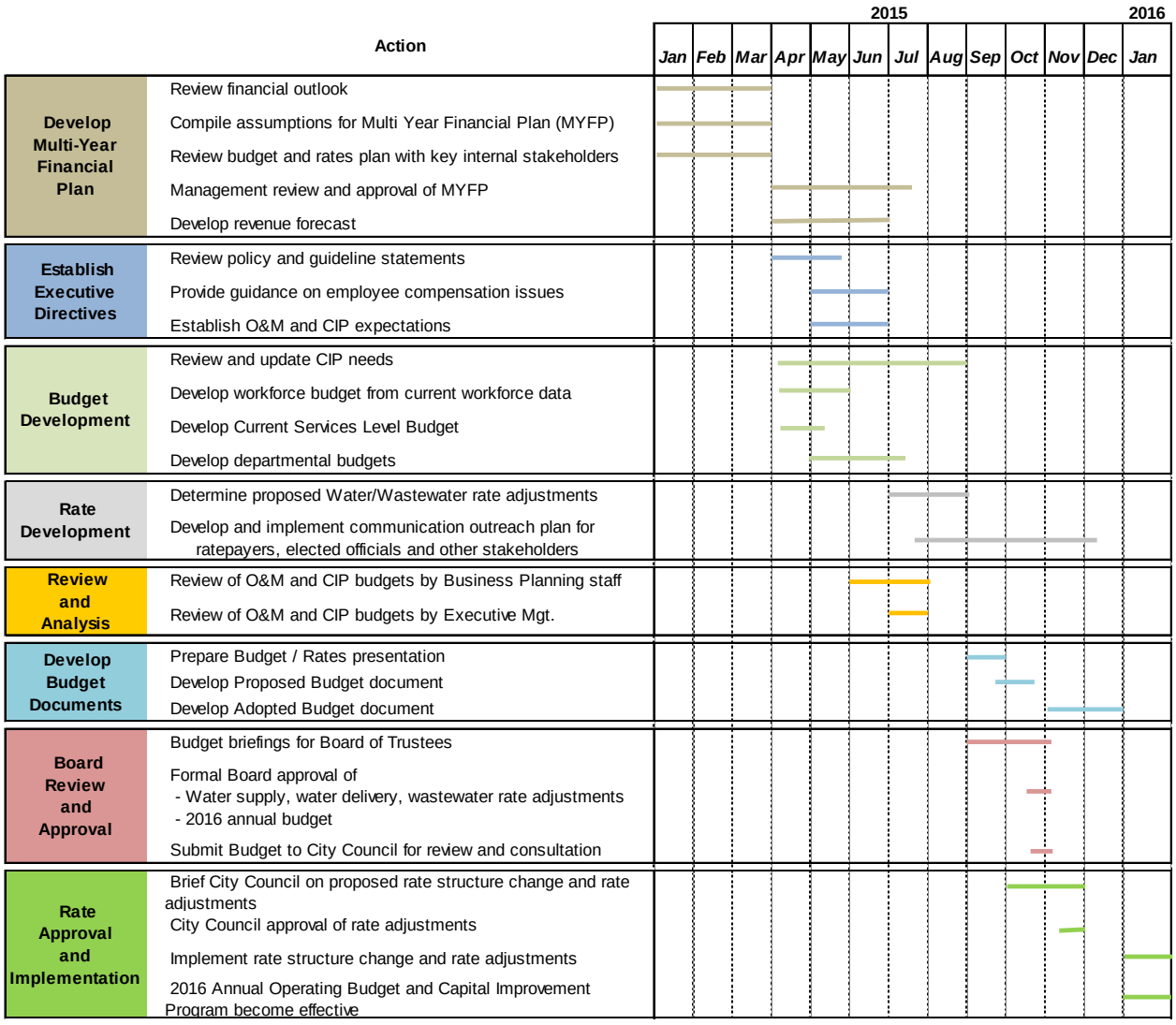
Capital Improvement Program

The annual budget process includes the development of a Capital Improvements Program that supports the corporate vision of providing plentiful, quality, affordable water services. Delivering a sustainable capital improvement plan ensures that the use of resources today does not damage prospects for future generations.

There are four distinct phases to this process:

1) Project identification – Create the project candidate list with recommended risk ratings.
2) Validate and prioritize – Using the Failure Modes and Effects Analysis (FMEA) methodology, process owners, managers, directors and executive management validate project risk ratings and prioritize accordingly.
3) Impact assessment and mitigation – Financial analysis is done to assess the plan impact on rates and review rate mitigation strategies.
4) Review and Approval - Upon executive management concurrence, the plan is presented to the Board of Trustees for review and approval.

2016 Budget Timeline



SHORT- TERM FIVE YEAR FORECAST

The Short-Term horizon for sources and uses of funds for the period 2016 – 2020 is shown in the table below. Beginning in 2017, the sources and uses of funds for DSP have been consolidated with SAWS.

$ in Millions	2015 Adopted	2016 Budget	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast
Sources of Funds						
Revenue, incl. prior adjustments	$ 496.6	$ 506.7	$ 604.8	$ 653.8	$ 693.7	$ 757.1
Rate Adjustment, incremental	23.1	34.5	46.8	36.3	59.1	108.5
Nonoperating Revenues	5.4	5.5	5.8	6.7	7.8	8.7
Draw on Equity	1.4	1.4	1.4	1.4	1.4	-
Capital Recovery Fees	46.4	46.4	57.2	57.2	57.2	57.2
Total Sources of Funds	**$ 572.9**	**$ 594.5**	**$ 716.0**	**$ 755.4**	**$ 819.2**	**$ 931.5**
Uses of Funds						
Operations and Maintenance	$ 265.8	$ 268.9	$ 329.9	$ 334.3	$ 361.6	$ 469.5
Operating Reserve	1.9	2.7	0.8	4.6	18.0	1.2
Debt Service & Expenses	188.3	192.7	220.6	234.7	246.3	259.6
Transfer to City of San Antonio	13.3	13.9	16.8	17.8	19.6	22.6
Available for R&R Restricted	46.5	46.5	57.3	57.3	57.4	57.6
Available for R&R Unrestricted	57.0	69.8	90.6	106.7	116.3	121.0
Total Uses of Funds	**$ 572.8**	**$ 594.5**	**$ 716.0**	**$ 755.4**	**$ 819.2**	**$ 931.5**

The sources of funds mostly 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.

The primary drivers for increases in operations and maintenance costs through 2020 include the impact of consolidating DSP with SAWS in 2017 and operating costs associated with the acquisition of new water supplies. Water supply operating cost increases in the five year planning horizon include the expected startup of Brackish Water Desalination project in late 2016 as well the cost to purchase approximately 50,000 acre feet annually of Vista Ridge water supplies beginning in late 2019.

The growth in debt service is a reflection of the allocation of capital resources toward major strategic priorities of water resources, infrastructure replacement, system growth, and sustainability. The five year 2016 – 2020 capital improvement program is projected at $1.5 billion as shown below. A significant priority is wastewater capital replacement projects related to the wastewater Sanitary Sewer Overflow Reduction Program.

CIP ($ in Millions)	**2016**	**2017**	**2018**	**2019**	**2020**	**Total**
Water Supply	$ 29.1	$ 117.0	$ 33.8	$ 50.0	$ 21.6	$ 251.5
Water Delivery	72.1	84.3	130.7	66.6	96.6	450.3
Wastewater	129.6	141.0	173.7	181.2	176.3	801.8
Chilled Water	4.9	2.7	-	1.0	4.9	13.5
Total	***$ 235.7***	***$ 345.0***	***$ 338.2***	***$ 298.8***	***$ 299.4***	***$ 1,517.1***

Projected funding for the five year capital improvement program is from renewal & replacement, impact fees, investment income, and bond funds. SAWS goal is to eventually fund approximately 50% of capital improvements with non-debt sources of funds. During the 2016-2020 five year forecast, the percentage of the capital improvement funded with non-debt sources is projected to average 49%.

Capital Improvement Program					
	2016	**2017**	**2018**	**2019**	**2020**
CIP Budget $M	$ 235.7	$ 345.0	$ 338.2	$ 298.8	$ 299.4
Capital Improvement Program Funding					
	2016	**2017**	**2018**	**2019**	**2020**
Revenue/Renewal & Replacement	13.0%	25.0%	26.8%	33.8%	36.5%
Impact Fees	25.9%	26.1%	13.9%	16.7%	10.0%
Bond Capacity	15.1%	3.4%	0.0%	0.0%	0.0%
Bonds/Commercial Paper	46.0%	45.5%	59.3%	49.5%	53.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Cash Funding $M	$ 91.5	$ 179.5	$ 164.3	$ 151.0	$ 153.0
Debt Funding $M	$ 144.2	$ 165.5	$ 173.9	$ 147.8	$ 146.4

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)	2013 Actual	2014 Actual	2015 Budget	2016 Budget
SOURCES OF FUNDS				
Operating Revenues				
Sewer Service Charges	$ 190,859	$ 205,828	$ 216,796	$ 222,587
Metered Water Sales	124,901	132,735	136,138	146,189
Water Supply Fee	91,222	108,062	110,958	116,173
EAA Fee	18,689	18,860	21,621	21,481
Chilled Water Sales	12,621	11,152	10,236	10,236
Conservation	8,963	8,375	9,861	9,503
Industrial Waste Surcharge	5,443	5,464	4,915	6,147
Stormwater	5,077	4,435	4,781	4,558
Recycled Water System	5,124	5,042	5,238	5,238
Recovery of TCEQ Fees	1,433	1,602	1,742	1,764
Reduction for Affordability Program	(1,994)	(1,911)	(2,631)	(2,737)
Total Operating Revenues	462,338	499,644	519,655	541,139
Nonoperating Revenues	1,721	2,086	1,737	1,875
Build America Bonds Subsidy	3,688	3,707	3,683	3,637
Total Revenues	467,747	505,437	525,075	546,651
Capital Recovery Fees	37,288	51,972	46,403	46,403
Draw on Equity	1,400	1,400	1,400	1,400
Total Sources of Funds	**$ 506,435**	**$ 558,809**	**$ 572,878**	**$ 594,454**
USES OF FUNDS				
Operations and Maintenance	$ 235,793	$ 247,019	$ 265,784	$ 268,897
Operating Reserve	2,264	2,730	1,893	2,677
Revenue Bond Debt Requirement	149,218	167,752	185,163	189,848
Other Debt Service Requirement	2,554	2,778	3,184	2,894
Transfer to the City of San Antonio	11,528	13,089	13,275	13,870
Balance Available for:				
Renewal and Replacement Fund (Restricted)	37,328	52,113	46,516	46,490
Renewal and Replacement Fund (Unrestricted)	67,750	73,328	57,063	69,778
Total Uses of Funds	**$ 506,435**	**$ 558,809**	**$ 572,878**	**$ 594,454**

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 2016 Budget for Sources and Uses of Funds by core business:

	2016 BUDGET				
(dollars in thousands)	Water Supply	Water Delivery	Wastewater	Chilled Water	Total
SOURCES OF FUNDS					
Operating Revenues					
Sewer Service Charges	$ -	$ -	$ 222,587	$ -	$ 222,587
Metered Water Sales		146,189			146,189
Water Supply Fee	116,173				116,173
EAA Fee	21,481				21,481
Chilled Water Sales				10,236	10,236
Conservation	9,503				9,503
Industrial Waste Surcharge			6,147		6,147
Stormwater	4,558				4,558
Recycled Water System	5,238				5,238
Recovery of TCEQ Fees		1,252	512		1,764
Reduction for Affordability Program	(749)	(748)	(1,240)		(2,737)
Intercompany Reallocations	5,630	(5,630)			-
Total Operating Revenues	161,834	141,063	228,006	10,236	541,139
Nonoperating Revenues	1,155	308	333	79	1,875
Build America Bonds Subsidy	954	1,114	1,570	-	3,637
Total Revenues	163,943	142,485	229,909	10,315	546,651
Capital Recovery Fees	16,246	12,920	17,237	-	46,403
Draw on Equity	1,400	-	-	-	1,400
Total Sources of Funds	**$ 181,589**	**$ 155,405**	**$ 247,146**	**$ 10,315**	**$ 594,454**
USES OF FUNDS					
Operations and Maintenance	$ 92,489	$ 62,321	$ 107,465	$ 6,622	$ 268,897
Operating Reserve	2,123	250	282	22	2,677
Revenue Bond Debt Requirement	51,815	51,536	83,405	3,092	189,848
Other Debt Service Requirement	676	955	1,201	62	2,894
Transfer to the City of San Antonio	3,609	3,817	6,165	279	13,870
Balance Available for:			-	-	
Renewal and Replacement Fund (Restricted)	16,331	12,920	17,239	-	46,490
Renewal and Replacement Fund (Unrestricted)	14,546	23,606	31,389	238	69,778
Total Uses of Funds	**$ 181,589**	**$ 155,405**	**$ 247,146**	**$ 10,315**	**$ 594,454**

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)	2013 Actual	2014 Actual	2015 Budget	2016 Budget
SOURCES OF FUNDS				
Operating Revenues				
Water Supply Fee	$ 91,222	$ 108,062	$ 110,958	$ 116,173
Conservation	8,963	8,375	9,861	9,503
EAA Fee	18,689	18,860	21,621	21,481
Recycled Water System	5,124	5,042	5,238	5,238
Stormwater	5,077	4,435	4,781	4,558
Reduction for Affordability Program	(338)	(324)	(720)	(749)
Intercompany Reallocations	5,630	5,630	5,630	5,630
Total Operating Revenues	134,367	150,080	157,369	161,834
Nonoperating Revenues	949	853	1,038	1,155
Build America Bonds Subsidy	967	973	966	954
Total Revenues	136,283	151,906	159,373	163,943
Capital Recovery Fees	9,846	13,598	16,246	16,246
Draw on Equity	1,400	1,400	1,400	1,400
Total Sources of Funds	**$ 147,529**	**$ 166,904**	**$ 177,019**	**$ 181,589**
USES OF FUNDS				
Operations and Maintenance	$ 68,226	$ 74,658	$ 89,938	$ 92,489
Operating Reserve	(387)	441	1,059	2,123
Revenue Bond Debt Requirement	41,931	46,526	54,691	51,815
Other Debt Service Requirement	350	384	456	676
Transfer to the City of San Antonio	3,026	3,413	3,475	3,609
Balance Available for:				
Renewal and Replacement Fund (Restricted)	9,860	13,633	16,317	16,331
Renewal and Replacement Fund (Unrestricted)	24,523	27,849	11,083	14,546
Total Uses of Funds	**$ 147,529**	**$ 166,904**	**$ 177,019**	**$ 181,589**

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)	2013 Actual	2014 Actual	2015 Budget	2016 Budget
SOURCES OF FUNDS				
Operating Revenues				
Metered Water Sales	$ 124,901	$ 132,735	$ 136,138	$ 146,189
Recovery of TCEQ Fees	1,086	1,169	1,237	1,252
Reduction for Affordability Program	(590)	(566)	(719)	(748)
Intercompany Reallocations	(5,630)	(5,630)	(5,630)	(5,630)
Total Operating Revenues	119,767	127,708	131,026	141,063
Nonoperating Revenues	361	484	293	308
Build America Bonds Subsidy	1,130	1,135	1,128	1,114
Total Revenues	121,258	129,327	132,447	142,485
Capital Recovery Fees	13,653	18,113	12,920	12,920
Draw on Equity	-	-	-	-
Total Sources of Funds	**$ 134,911**	**$ 147,440**	**$ 145,367**	**$ 155,405**
USES OF FUNDS				
Operations and Maintenance	$ 59,564	$ 61,260	$ 58,923	$ 62,321
Operating Reserve	(257)	102	-	250
Revenue Bond Debt Requirement	40,932	47,100	49,754	51,536
Other Debt Service Requirement	858	756	910	955
Transfer to the City of San Antonio	2,902	3,636	3,545	3,817
Balance Available for:				
Renewal and Replacement Fund (Restricted)	13,658	18,161	12,940	12,920
Renewal and Replacement Fund (Unrestricted)	17,254	16,425	19,295	23,606
Total Uses of Funds	**$ 134,911**	**$ 147,440**	**$ 145,367**	**$ 155,405**

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)	2013 Actual	2014 Actual	2015 Budget	2016 Budget
SOURCES OF FUNDS				
Operating Revenues				
Sewer Service Charges	$ 190,859	$ 205,828	$ 216,796	$ 222,587
Industrial Waste Surcharge	5,443	5,464	4,915	6,147
Recovery of TCEQ Fees	347	433	505	512
Reduction for Affordability Program	(1,066)	(1,021)	(1,192)	(1,240)
Total Operating Revenues	195,583	210,704	221,024	228,006
Nonoperating Revenues	309	664	315	333
Build America Bonds Subsidy	1,592	1,599	1,588	1,570
Total Revenues	197,484	212,967	222,927	229,909
Capital Recovery Fees	13,789	20,261	17,237	17,237
Draw on Equity	-	-	-	-
Total Sources of Funds	**$ 211,273**	**$ 233,228**	**$ 240,164**	**$ 247,146**
USES OF FUNDS				
Operations and Maintenance	$ 97,408	$ 101,254	$ 110,014	$ 107,465
Operating Reserve	2,880	1,964	834	282
Revenue Bond Debt Requirement	64,069	71,490	77,874	83,405
Other Debt Service Requirement	1,328	1,629	1,808	1,201
Transfer to the City of San Antonio	5,256	5,737	5,976	6,165
Balance Available for:				
Renewal and Replacement Fund (Restricted)	13,810	20,314	17,260	17,239
Renewal and Replacement Fund (Unrestricted)	26,522	30,840	26,398	31,389
Total Uses of Funds	**$ 211,273**	**$ 233,228**	**$ 240,164**	**$ 247,146**

CHILLED WATER CORE BUSINESS

The Chilled Water core business provides cooling services to customers of the System, including various downtown hotels, City of San Antonio Convention Center, Hemisfair Plaza, Alamodome, and Port San Antonio tenants. Prior to June 2014, SAWS also provided centralized steam services to many of those same customers. Discontinuation of steam services has resulted in a decrease in operating revenues and reduced operating and maintenance expenditures.

(dollars in thousands)	2013 Actual	2014 Actual	2015 Budget	2016 Budget
SOURCES OF FUNDS				
Operating Revenues				
Chilled Water Sales	$ 12,621	$ 11,152	$ 10,236	$ 10,236
Total Operating Revenues	12,621	11,152	10,236	10,236
Nonoperating Revenues	101	85	91	79
Build America Bonds Subsidy	-	-	-	-
Total Revenues	12,722	11,237	10,327	10,315
Capital Recovery Fees	-	-	-	-
Draw on Equity	-	-	-	-
Total Sources of Funds	**$ 12,722**	**$ 11,237**	**$ 10,327**	**$ 10,315**
USES OF FUNDS				
Operations and Maintenance	$ 10,595	$ 9,847	$ 6,909	$ 6,622
Operating Reserve	28	223	-	22
Revenue Bond Debt Requirement	2,286	2,636	2,844	3,092
Other Debt Service Requirement	18	9	10	62
Transfer to the City of San Antonio	344	303	279	279
Balance Available for:				
Renewal and Replacement Fund (Restricted)	-	5	-	-
Renewal and Replacement Fund (Unrestricted)	(549)	(1,786)	285	238
Total Uses of Funds	**$ 12,722**	**$ 11,237**	**$ 10,327**	**$ 10,315**

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.

SAWS is an enterprise fund, with separate self-balancing sub-funds which are maintained to account for resources of various purpose, thereby distinguishing balances restricted by City Ordinance or other enabling legislation from unrestricted resources.

The following schedule reflects the projected change in net position for 2016. Net position is expected to increase by $142.4 million or 6.3% during 2016.

($ in thousands)	System Fund	Debt Service Fund	Debt Reserve Fund	Renewal and Replacement Fund	Project Fund	Combined Total
Net Position, December 31, 2015	**$1,706,351**	**$52,000**	**$57,847**	**$268,911**	**$193,867**	**$2,278,976**
2016 Change in Net Position	199,504	(105,515)	-	48,236	143	142,368
Transfers in (out)	(190,556)	190,556	-	-	-	-
Proceeds from Bond Issue	(117,791)	-	-	-	117,791	-
Bond Issue Costs	1,741	-	-	-	(1,741)	-
Retirement of Bonds	73,620	(73,620)	-	-	-	-
Commercial paper retired	3,395	(3,395)	-	-	-	-
Expenditures for plant additions	235,651	-	-	(91,548)	(144,103)	-
Net Position, December 31, 2016	**$1,911,915**	**$60,026**	**$57,847**	**$225,599**	**$165,957**	**$2,421,344**

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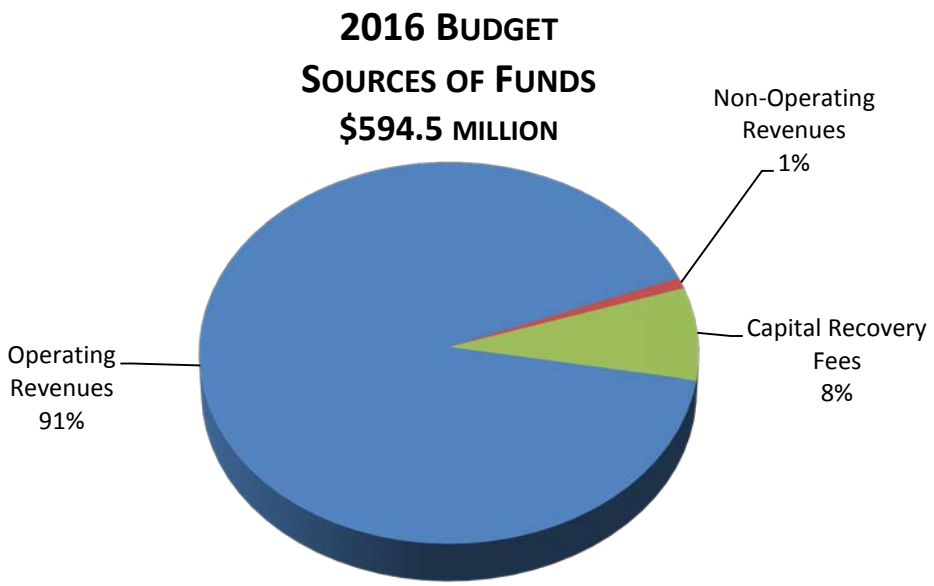
SOURCES OF FUNDS

The following table summarizes the 2016 budgeted Sources of Funds for all core businesses.

(dollars in thousands)	2013 Actual	2014 Actual	2015 Budget	2016 Budget
SOURCES OF FUNDS				
Operating Revenues				
Sewer Service Charges	$ 190,859	$ 205,828	$ 216,796	$ 222,587
Metered Water Sales	124,901	132,735	136,138	146,189
Water Supply Fee	91,222	108,062	110,958	116,173
EAA Fee	18,689	18,860	21,621	21,481
Chilled Water & Steam Sales	12,621	11,152	10,236	10,236
Conservation	8,963	8,375	9,861	9,503
Industrial Waste Surcharge	5,443	5,464	4,915	6,147
Stormwater	5,077	4,435	4,781	4,558
Recycled Water System	5,124	5,042	5,238	5,238
Recovery of TCEQ Fees	1,433	1,602	1,742	1,764
Reduction for Affordability Program	(1,994)	(1,911)	(2,631)	(2,737)
Total Operating Revenues	**462,338**	**499,644**	**519,655**	**541,139**
Nonoperating Revenues	1,721	2,086	1,737	1,875
Build America Bonds Subsidy	3,688	3,707	3,683	3,637
Total Revenues	**467,747**	**505,437**	**525,075**	**546,651**
Capital Recovery Fees	37,288	51,972	46,403	46,403
Draw on Equity	1,400	1,400	1,400	1,400
Total Sources of Funds	**$ 506,435**	**$ 558,809**	**$ 572,878**	**$ 594,454**



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 operating revenues consist of the Water Supply Fee, Metered Water Sales, EAA Fee and Sewer Service Charges, all of which are highly dependent upon customers' metered water usage. Fluctuations in system wide metered water usage is primarily the result of 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

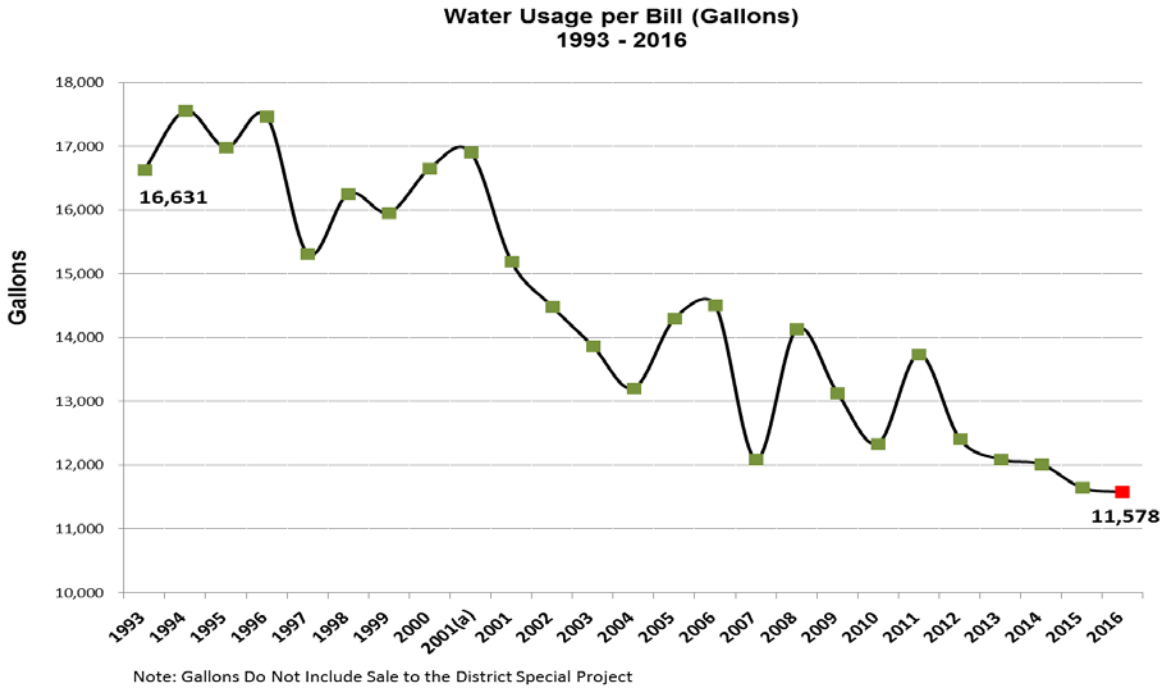
Due to this systematic and comprehensive approach to forecasting metered revenues, SAWS has been able to identify developing shifts in usage patterns and underlying trends in customers' water usage. These customer connections and usage forecasts are aggregated to develop a comprehensive forecast for 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, 2016 total water and wastewater customer growth is forecasted at 1.3% with water customer growth projected at 1.2% and wastewater customer growth projected at 1.4%.

Average usage per customer is typically driven by weather, seasonal, cyclical, price elasticity, conservation, and drought restriction effects. Therefore the modeling of the average usage per customer incorporates multivariate regression statistical forecasting to incorporate these variables.

As shown in the following Water Use per Bill chart, average water usage per customer exhibits:

- 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



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 provide a starting proxy for the expected range of usage conditions in the future.

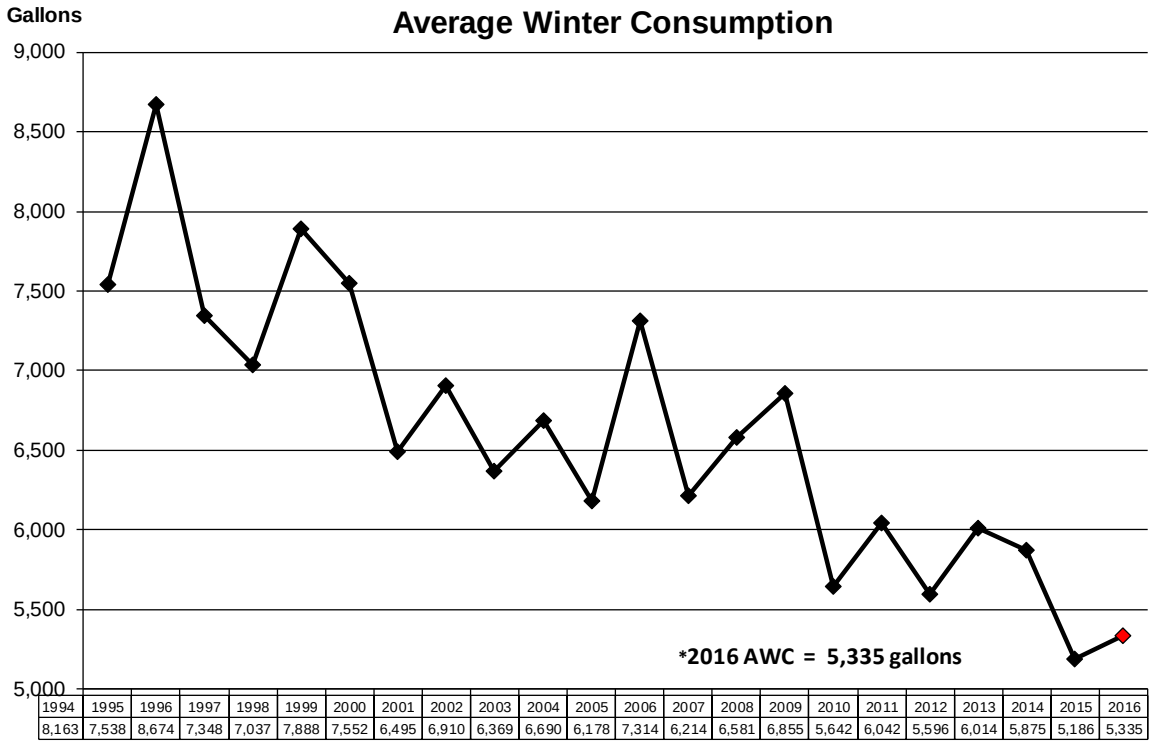
The drought that began in 2011 lasted into 2015. The resulting drought restrictions during that period, brought customer usage levels in 2013 and 2014 to what was up until then historically low usage levels. Extremely wet weather conditions during 2015 served to end the drought but also dampened average customer demand to a new historic low level of 11,645 gallons.

In order to minimize the financial risk to the system of overestimating revenues, 2016 budgeted revenues assumes average customer use per bill of 11,578 gallons. This forecast allows for the possibility of either continued wet conditions or drought restrictions as well as accounts for impacts of continuing conservation efforts. Total budgeted water usage of 53 billion gallons for 2016 is 4.5% less than the 55.5 billion gallons budgeted in 2015, despite projected water customer growth of 1.2%.

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 2016 AWC budget of 5,335 gallons assumes a systematic decline in use per customer under normal weather 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 public awareness about the winter averaging method and measurement period. There have also been two significant downward shifts in the AWC beginning in 2010 to 5,642 gallons, then in 2015 to 5,186 gallons. The 2016 budgeted AWC of 5,335 gallons takes into account these shifts.

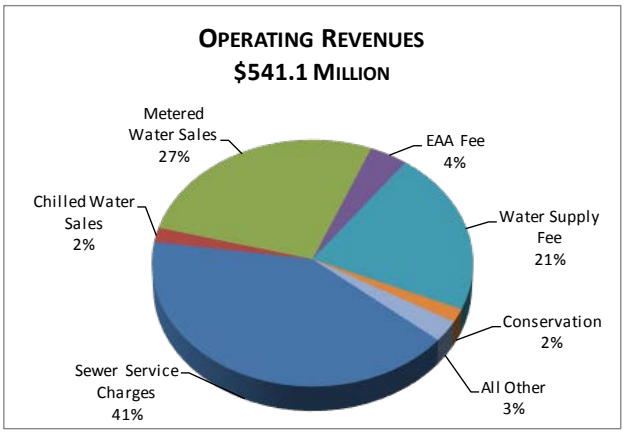


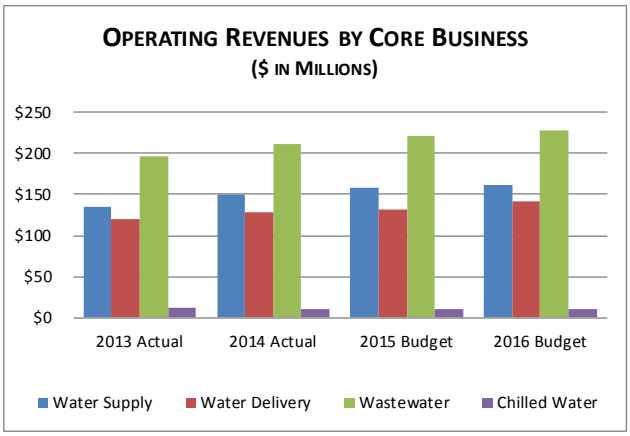
1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
8,163	7,538	8,674	7,348	7,037	7,888	7,552	6,495	6,910	6,369	6,690	6,178	7,314	6,214	6,581	6,855	5,642	6,042	5,596	6,014	5,875	5,186	5,335

OPERATING REVENUES

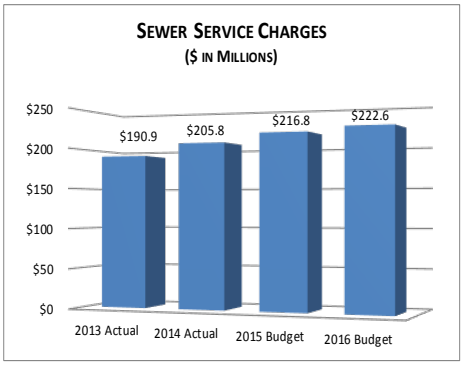
The 2016 revenue budget includes a rate adjustment of 7.5% on an average residential bill (*7,092 gallons water; 5,668 wastewater assumed*). Details of the rate adjustment are as follows:

- 9.3% Water Supply Fee, 9.9% water delivery, and 5.3% wastewater rate adjustments
- Rate increases are effective for usage beginning January 1, 2016
- Rate adjustments result in projected additional operating revenue of $34.5 million in 2016





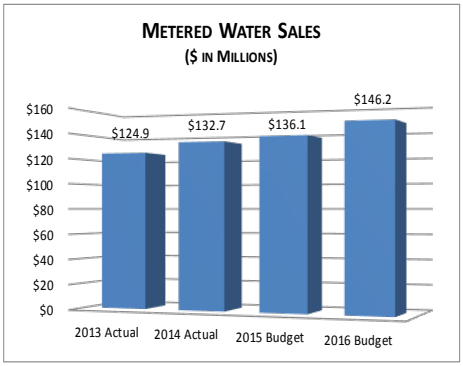
Wastewater Operating Revenues



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 a 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.

Wastewater operating revenues for 2016 consist primarily of $222.6 million in metered sewer service charges and $6.1 million in sewer surcharge revenues. Net metered wastewater revenues include a 5.3% rate adjustment forecast to generate $11.0 million in additional wastewater revenue in 2016.

Water Delivery Operating Revenues

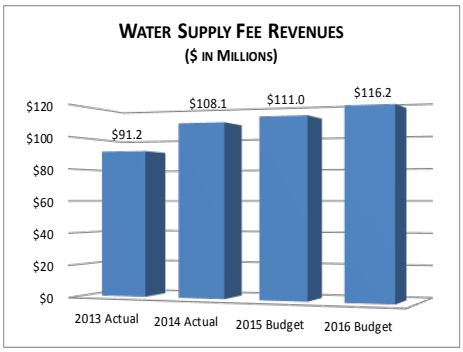


Water delivery operating revenues recover the costs associated with the production, transmission, and distribution of potable water to the customer primarily through monthly fixed and volumetric charges on each customer's metered water usage. 2016 metered water sales are forecast at $146.2 million, including a 9.9% rate adjustment forecast to generate $13.5 million in additional water revenue in 2016.

The 2016 revenue forecast assumes that total water sales will total 53.0 billion gallons which is a 4.5% reduction from the 55.5 billion gallons forecasted for the 2015 annual budget. The reduction in assumed usage more accurately reflects customer usage in recent years.

Water Supply Operating Revenues

2016 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. 2016 Water Supply Fee revenues are projected to be $116.2 million which includes a 9.3% rate adjustment forecasted to generate $10.0 million in additional revenue in 2016.

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 2016 EAA Fee budgeted revenue is $21.5 million.

Recycled water revenues are budgeted to be $5.2 million in 2016, including a 9.6% 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 62% of recycled water revenues.

Conservation revenues are used to fund residential and commercial conservation programs. Conservations revenues for 2016 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 2016, conservation revenues are budgeted at $9.5 million or 5.9% 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 $4.6 million in 2016 to offset the cost of providing those services.

Chilled Water Operating Revenues

SAWS provides chilled water for cooling purposes primarily to commercial customers located in downtown San Antonio and Port San Antonio. 2016 revenues are projected at $10.2 million, remaining at the same level as budgeted in 2015. Chilled water services compromise approximately 1.9% of total operating revenues.

NON-OPERATING REVENUES

2016 non-operating revenues, budgeted at $5.5 million, are comprised of $1.9 million of interest earnings on investments and a $3.6 million federal subsidy to be received on previously issued Build America Bonds. In total, non-operating revenues account for 0.9% of the total sources of funds for 2016.

The average investment base is assumed to be $475 million and the yield on those investments is estimated to be 0.4% in 2016.

DRAW ON EQUITY

The 2016 Draw on Equity of $1.4 million is based on projected annual payments from the Lower Colorado River Authority (LCRA). LCRA and SAWS settled a lawsuit in 2011 stipulating that LCRA pay $1.4 million annually through 2019.

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 likely be conducted in 2019/2020. Capital recovery fees are budgeted at $46.4 million in 2016, remaining consistent with the 2015 budget level. In total, these fees are projected to account for 7.8% of the total sources of funds for 2016.

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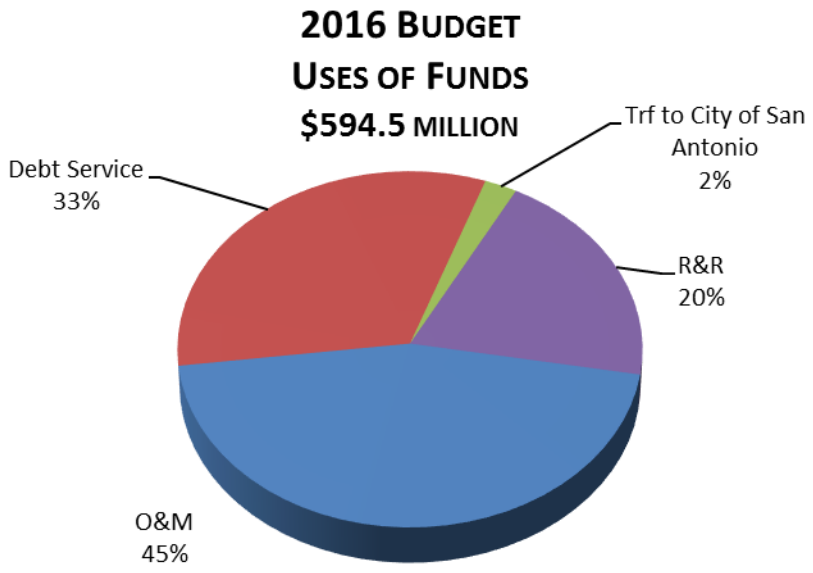
USES OF FUNDS

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 capital program)**

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

(dollars in thousands)	2013 Actual	2014 Actual	2015 Budget	2016 Budget
USES OF FUNDS				
Operations and Maintenance	$ 235,793	$ 247,019	$ 265,784	$ 268,897
Operating Reserve	2,264	2,730	1,893	2,677
Revenue Bond Debt Requirement	149,218	167,752	185,163	189,848
Other Debt Service Requirement	2,554	2,778	3,184	2,894
Transfer to the City of San Antonio	11,528	13,089	13,275	13,870
Balance Available for:				
Renewal and Replacement Fund (Restricted)	37,328	52,113	46,516	46,490
Renewal and Replacement Fund (Unrestricted)	67,750	73,328	57,063	69,778
Total Uses of Funds	**$ 506,435**	**$ 558,809**	**$ 572,878**	**$ 594,454**



OPERATION AND MAINTENANCE EXPENSE

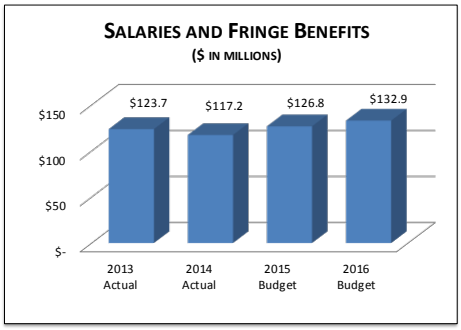
The cost to operate and maintain the system on a daily basis comprises the largest single use of SAWS' revenues. Approximately 45 cents of every dollar collected from customers in 2016 will go toward supporting ongoing operations and maintenance. The 2016 budget for Operations and Maintenance (O&M) is $268.9 million, which is an increase of 1.2% from the 2015 O&M 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 support of SAWS Capital Improvement Program.

(dollars in thousands)	2013 Actual	2014 Actual	2015 Budget	2016 Budget
OPERATIONS & MAINTENANCE				
Salaries and benefits	$ 123,744	$ 117,238	$ 126,751	$ 132,934
Contractual services	107,194	127,685	145,168	144,167
Materials and supplies	23,355	20,930	19,648	20,092
Other charges	12,676	12,270	10,382	9,865
Total O&M before capitalization	**266,969**	**278,123**	**301,949**	**307,058**
Less: Capitalized Costs	(31,176)	(31,103)	(36,165)	(38,160)
Total Operations & Maintenance	**$ 235,793**	**$ 247,020**	**$ 265,784**	**$ 268,898**

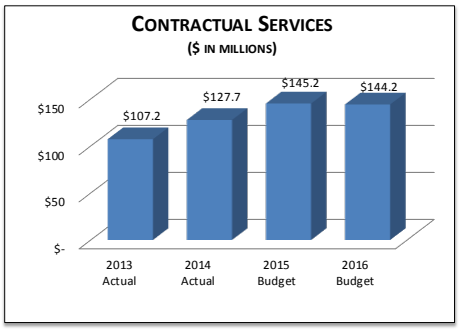
Salaries and Fringe Benefits

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 2016 are estimated at $132.9 million, or 43% of gross operation and maintenance expenditures (before capitalization) and reflect a 4.9% increase from the prior year budget. The increased salary and fringe benefits are the result of annual wage adjustments given to employees as well as additional full-time equivalent (FTE) positions that will provide additional resources to address water leak repairs and EPA consent decree requirements, improve revenue collections, and increase customer call center staffing.



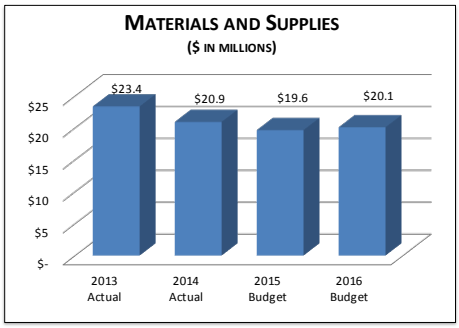
Contractual Services

Contractual services costs represent expenditures for services that are obtained by express or implied contract. Total Contractual Services for 2016 are budgeted at $144.2 million, which is 47% of the gross operation and maintenance expenditures (before capitalization) and reflect a 0.7% net decrease from the 2015 budget, driven primarily by reductions in purchased water costs associated with the Regional Carrizo project. Partially offsetting this reduction are additional utilities and maintenance costs associated with testing and operation of the desalination plant beginning in mid-2016. The significant increase in contractual services costs in 2014 and 2015 relates to SAWS obligations under the EPA Consent Decree.



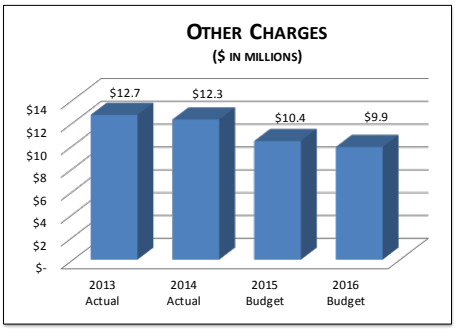
Materials and Supplies

The Materials and Supplies budget of $20.1 million is 7% of gross operation and maintenance expenditures and reflects an increase of 2.3% as compared to the prior year budget, resulting primarily from an increase in chemical costs associated with the initial operation of the desalination plant. Partially offsetting this increase is a reduction in motor fuels and lubricants resulting from price reductions in fuel costs.



Other Charges

Other Charges for 2016 are estimated at $9.9 million, or 3% of gross operation and maintenance expenditures, and reflect a 5.0% decrease from the prior year budget. Included in this category is property, casualty and workers' compensation costs, retirees' healthcare costs and bank charges. The projected reduction in this category is primarily the result of SAWS outsourcing the processing of credit card payments to a third party vendor who directly charges the customer for the service.



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. In 2016, Capitalized Costs are estimated at $38.2 million, which is an increase of 5.5% from 2015. This increase is due primarily to in-house efforts supporting capital projects directed at reducing sanitary sewer overflows.

OPERATION AND MAINTENANCE BY EXPENSE CLASSIFICATION

($ in thousands)

	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Salaries and Fringe Benefits				
511100 Salaries	$ 79,520	$ 74,866	$ 81,571	$ 86,364
511140 Overtime Pay	3,449	3,821	2,952	3,322
511150 On-Call Pay	450	519	394	477
511160 Employee Insurance	12,568	12,005	14,946	15,641
511162 Retirement	20,042	18,337	17,057	17,581
511164 Unused Sick Leave Buyback	27	59	31	62
511166 Personal Leave Buyback	792	762	896	848
511168 Accrued Vacation leave	863	781	1,344	1,071
511170 Incentive Pay	2,033	87	60	68
511175 Other Post Employment Benefits	4,000	6,000	7,500	7,500
Salaries and Fringe Benefits Total	**123,744**	**117,238**	**126,751**	**132,934**
Contractual Services				
511210 Operating Expense	1,695	1,776	1,737	1,836
511211 Rental of Facilities	256	247	303	292
511212 Alarm and Security	1,556	1,135	986	1,009
511214 Uniforms and Shoe Allowance	247	245	303	297
511216 Catering Svcs & Luncheons	73	101	78	82
511219 Conservation Programs	736	1,210	2,768	2,905
511220 Maintenance Expense	9,275	10,456	10,804	11,438
511221 Street Cut Permit Admin Fee	620	540	588	593
511222 St Pave/Repair Fee	1,132	1,647	1,381	1,358
511223 Preventive Maintenance	61	82	66	67
511224 Corrective Maintenance	1,151	1,380	1,279	1,301
511225 Damage Repair	158	121	155	157
511230 Equipment Rental Charges	493	634	670	659
511240 Travel	46	85	142	183
511245 Training	244	200	559	550
511247 Conferences	34	33	66	77
511250 Memberships and Subscriptions	238	316	331	344
511260 Utilities	25,831	27,109	25,047	28,682
511261 Water Options	15,157	19,591	29,081	25,852
511265 Ground Water District Pay	18,244	17,910	21,840	21,850
511270 Mail and Parcel Post	1,864	2,122	2,163	2,160
511280 Telemetering Charges	26	2	2	3
511309 Educational Assist-Books	14	5	13	13
511310 Educational Assistance	263	133	188	187
511312 Contractual Prof Svcs	19,967	29,280	31,748	31,324
511313 Inspect & Assessment Fees	1,556	1,658	1,613	1,621
511314 United Water Contractual Fees	-	-	-	-
511315 Temporary Employees	740	1,818	1,380	973
511320 Legal Services	1,622	3,175	4,478	2,962
511370 Communications	1,101	1,087	1,223	1,288
511381 Software and Hardware Maintenance	2,791	3,586	4,176	4,103
Contractual Services Total	**107,194**	**127,685**	**145,168**	**144,167**

OPERATION AND MAINTENANCE BY EXPENSE CLASSIFICATION *(CONTINUED)*

($ in thousands)

	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Materials and Supplies				
511410 Small Tools	720	652	548	641
511417 Copy and Printing Expense	11	16	36	35
511420 Operating Materials	2,247	2,022	2,284	2,109
511421 Heating Fuel	58	80	50	50
511422 Chemicals	5,822	5,471	5,470	6,386
511425 Education of School Children	27	21	24	24
511426 Public Awareness-WQEE	12	12	1	1
511427 Enforcement	-	-	16	16
511428 Program Materials	1,558	504	-	1
511430 Maintenance Materials	8,186	7,778	6,484	6,958
511440 Safety Materials & Supplies	733	747	666	706
511441 Inventory Variances	(42)	93	31	31
511450 Tires and Tubes	664	607	591	557
511451 Motor Fuel & Lubricants	3,358	2,929	3,447	2,576
Materials and Supplies Total	**23,355**	**20,930**	**19,648**	**20,092**
Other Charges				
511510 Judgements and Claims	642	336	582	916
511511 AL & GL Claims - Cont. Liab.	(236)	194	224	67
511520 Bank Charges	1,047	1,331	523	18
511525 Cash Short/(Over)	2	(1)	-	-
511530 Employee Relations	135	106	181	152
511540 Retiree Insurance	8,465	8,155	6,242	6,470
511570 Casualty Insurance	1,259	1,407	1,415	1,219
511580 Unemployment Compensation	34	59	72	71
511590 Workers Comp Medical	763	385	896	800
511600 WC-Contigent Liab Adjust	179	-	-	-
511610 Workers Comp Benefits	346	270	211	111
511620 WC-Misc Claims Expense	39	28	36	40
Other Charges Total	**12,676**	**12,270**	**10,382**	**9,865**
O&M Before Capitalized Cost Total	**266,969**	**278,122**	**301,950**	**307,057**
Capitalized Cost	(31,176)	(31,103)	(36,165)	(38,160)
Grand Total	**$ 235,793**	**$ 247,020**	**$ 265,784**	**$ 268,897**

CAPITAL OUTLAY

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 2016 is to fund $8.2 million of capital expenditures meeting the above criteria.

The table below summarizes the planned expenditures in 2016 for the capital outlay program. The expenditure level represents an increase of $.6 million or 2.5% from 2015.

($ in thousands)	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Automobiles and Trucks	$ 2,331	$ 3,867	$ 3,602	$ 4,483
Computer Equipment	1,262	1,721	1,702	2,384
Lab Equipment	179	135	250	
Machinery and Equipment		1,102	155	209
Miscellaneous Equipment	1,777	1,661	472	1,005
Pumping Equipment	332	880	1,273	
Software Systems	1,066	14	544	120
Total	**$ 6,947**	**$ 9,380**	**$ 7,998**	**$ 8,201**

OPERATING RESERVE

The operating reserve requirement reflects compliance with Ordinance No. 75686, which dictates that SAWS maintain a two month reserve amount based upon the budgeted amount of operations and maintenance expenses for the current fiscal year. A $2.7 million increase in the operating reserve will be funded during 2016 as a result of the projected increase in O&M expenses between 2016 and 2017. O&M expenses are projected to increase by approximately $16 million in 2017 largely due to a full year operation of both the brackish desalination plant and the integration pipeline necessary to transport the desalinated water from the plant to customers.

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 2016 debt service schedules assume the issuance of an additional $117.8 million of bonds in 2016. The amount necessary to fulfill total bonded debt service requirements in 2016 on existing and new bonded debt is projected to be $189.8 million, which is 2.5% more than the 2015 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 $2.2 million in debt related expenses in 2016, which is down slightly from the 2015 budget amount. 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 $13.9 million for this transfer in 2016.

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, $116.3 million is estimated to be available for transfer to the Renewal and Replacement Fund (R&R) of which $46.5 million is restricted for use associated with SAWS Capital Improvement Program. The R&R Fund 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.

After funding of $8.2 million for 2016 capital outlay expenditures, $61.6 million in unrestricted funds is expected to be added to the R&R Fund. These unrestricted funds are expected to be utilized to provide pay-as-you-go funding to support the SAWS Capital Improvement Program in 2017 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 its investment portfolio.

REVENUE BONDS

SAWS currently has Senior and Junior Lien Water System Revenue Bonds outstanding.

- **Senior Lien Water System Revenue Bonds** - comprised of Series 2007, Series 2009, Series 2009B, Series 2010B, Series 2011, Series 2011A, Series 2012, and Series 2012A outstanding in the amount of $1,157,305,000 as of December 31, 2015 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 2007A, 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, and Series 2015B (NO RESERVE FUND) outstanding in the amount of $1,087,430,000 as of December 31, 2015 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") outstanding in the amount of $200,000,000 as of December 31, 2015, were issued as multi-modal variable rate bonds, initially issued in a Securities Industry and Financial Markets Association (SIFMA) Index Mode. During the initial three-year term of the bonds, the interest rate for the Series 2013F Bonds will reset weekly based on the SIFMA Swap Index, plus a spread of 0.68% and the Series 2014B will reset weekly based on the SIFMA Swap Index, plus a spread of 0.40%. The initial term of the Series 2013F Bonds expires October 31, 2016 and the Series 2014B Bonds expires October 31, 2017. Upon expiration of the initial term, the bonds will be remarketed into a successive SIFMA Index Mode, or another mode as allowed under the authorizing ordinance. 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, 2015, $91,650,000 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 2016 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 2016 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, 2018. Pursuant to the Agreements, the revolving line of credit currently totals $450 million.

The 2016 Budget assumes $302 million of commercial paper will be outstanding to fund capital improvement projects through 2016. As stated in the "Interest Rate Hedge Agreement (Swap)" section herein, an additional $91.7 million of the commercial paper program is attributable to the redemption of the Subordinate Lien Obligations. The 2016 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, and this amount has been subtracted from the projected average commercial paper balance in calculating the projected commercial paper interest expense. 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 2016, 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 2016 Annual Operating Budget projects an estimated 2016 Senior Lien Debt Coverage ratio of 2.83 times and 2016 Total Debt Coverage ratio of 1.45 times.

DEBT COVERAGE CALCULATION ($ in thousands)		
Total Sources of Funds	**$594,555**	
Less Revenues from:		
City Public Service contract	3,223	
Interest on CPS contract		
Capital Recovery Fees	46,403	
Transfer from Renewal & Replacement Fund	1,400	
Interest on Project Funds	143	
Gross Revenues as defined by Ordinance No. 75686	**$ 543,386**	
Less: Operations & Maintenance	268,897	
Pledged Revenues as defined by Ordinance No. 75686	**$ 274,489**	
2016 Senior Lien Debt Service Requirement	$ 97,085	
2016 Senior Lien Debt Coverage Ratio	**2.83**	x
Maximum Senior Lien Debt Service Requirement (Year 2027)	$ 115,006	
Maximum Senior Lien Debt Coverage Ratio	**2.39**	x
2016 Total Bonded Debt Service Requirement	$ 189,848	
2016 Total Bonded Debt Coverage Ratio	**1.45**	x
Maximum Total Bonded Debt Service Requirement (Year 2021)	$ 190,984	
Maximum Total Bonded Debt Coverage Ratio	**1.44**	x

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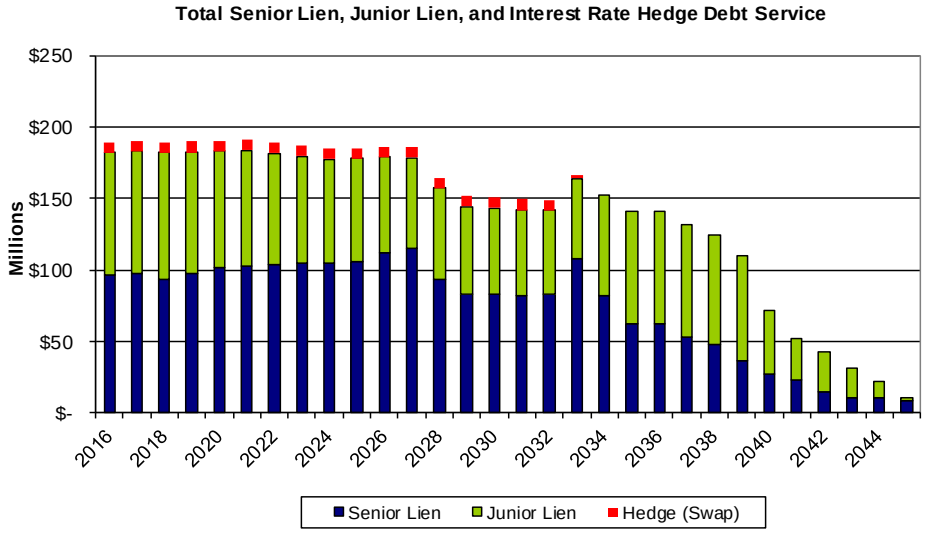
BUDGETED REVENUE AND REFUNDING BONDS DEBT SERVICE SCHEDULES

Fiscal Year	Senior Lien			Junior Lien		
December 31,	Principal	Interest	Total	Principal	Interest	Total
2016	$ 32,105,000	$ 64,979,685	$ 97,084,685	$ 43,768,333	$ 41,760,246	$ 85,528,580
2017	34,210,000	63,465,401	97,675,401	44,603,333	41,262,956	85,866,289
2018	31,563,333	61,858,745	93,422,078	49,106,667	39,984,643	89,091,309
2019	37,483,333	60,401,427	97,884,760	46,226,667	38,505,980	84,732,647
2020	43,115,000	58,654,615	101,769,615	44,785,000	37,034,948	81,819,948
2021	46,635,000	56,568,497	103,203,497	44,943,333	35,531,634	80,474,967
2022	50,043,333	54,260,564	104,303,897	43,426,667	33,959,277	77,385,944
2023	52,940,000	51,756,600	104,696,600	42,581,667	32,430,850	75,012,516
2024	55,636,667	49,098,216	104,734,883	42,188,333	30,933,079	73,121,413
2025	59,223,333	46,283,832	105,507,165	43,061,667	29,464,374	72,526,041
2026	68,588,333	43,280,972	111,869,305	39,228,333	27,935,210	67,163,543
2027	75,176,667	39,828,989	115,005,656	37,368,333	26,534,634	63,902,967
2028	57,361,667	36,271,684	93,633,351	38,448,333	25,211,569	63,659,902
2029	49,331,667	33,480,196	82,811,863	37,830,000	23,824,552	61,654,552
2030	51,710,000	31,012,332	82,722,332	37,973,334	22,570,657	60,543,990
2031	54,171,667	28,412,264	82,583,930	38,045,000	21,444,204	59,489,204
2032	57,245,000	25,727,546	82,972,546	38,603,333	20,315,537	58,918,870
2033	85,523,333	22,943,263	108,466,596	36,700,000	19,144,065	55,844,065
2034	63,558,333	18,634,128	82,192,461	52,608,333	17,991,104	70,599,437
2035	47,278,333	15,201,335	62,479,669	62,591,667	16,137,443	78,729,110
2036	49,573,333	12,754,772	62,328,106	64,778,333	13,791,214	78,569,547
2037	42,898,333	10,189,518	53,087,851	67,011,667	11,474,997	78,486,664
2038	40,466,667	7,882,940	48,349,607	67,568,333	8,902,854	76,471,187
2039	31,106,667	5,693,130	36,799,797	67,033,333	6,154,970	73,188,303
2040	23,161,667	3,976,810	27,138,477	40,655,000	3,687,220	44,342,220
2041	19,788,333	2,825,228	22,613,561	27,325,000	2,363,926	29,688,926
2042	12,543,333	1,918,728	14,462,061	27,040,000	1,640,599	28,680,599
2043	9,760,000	1,266,100	11,026,100	19,826,667	922,450	20,749,117
2044	10,315,000	714,038	11,029,038	10,353,333	387,912	10,741,246
2045	7,825,000	215,188	8,040,188	2,466,667	86,754	2,553,421
	$1,300,338,333	$ 909,556,744	$2,209,895,077	$1,258,146,667	$ 631,389,858	$1,889,536,525

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 SCHEDULES

Fiscal Year	Interest Rate Hedge (Swap)			Total Bonded Debt Service		
December 31,	Principal	Interest	Total	Principal	Interest	Total
2016	$ 3,498,333	$ 3,736,363	$ 7,234,696	$ 79,371,667	$ 110,476,294	$ 189,847,961
2017	3,656,667	3,590,132	7,246,799	82,470,000	108,318,490	190,788,490
2018	3,823,333	3,437,284	7,260,617	84,493,333	105,280,671	189,774,005
2019	3,996,667	3,277,468	7,274,135	87,706,667	102,184,876	189,891,542
2020	4,178,333	3,110,408	7,288,741	92,078,333	98,799,970	190,878,304
2021	4,370,000	2,935,753	7,305,753	95,948,333	95,035,884	190,984,218
2022	4,571,667	2,753,087	7,324,754	98,041,667	90,972,928	189,014,595
2023	4,780,000	2,561,992	7,341,992	100,301,667	86,749,442	187,051,108
2024	4,996,667	2,362,188	7,358,854	102,821,667	82,393,483	185,215,150
2025	5,226,667	2,153,327	7,379,994	107,511,667	77,901,533	185,413,200
2026	5,461,667	1,934,852	7,396,519	113,278,333	73,151,034	186,429,367
2027	5,710,000	1,706,555	7,416,555	118,255,000	68,070,178	186,325,178
2028	5,971,667	1,467,877	7,439,543	101,781,667	62,951,130	164,732,796
2029	6,243,333	1,218,261	7,461,594	93,405,000	58,523,009	151,928,009
2030	6,528,333	957,290	7,485,623	96,211,667	54,540,279	150,751,946
2031	6,825,000	684,405	7,509,405	99,041,666	50,540,873	149,582,540
2032	7,135,000	399,120	7,534,120	102,983,333	46,442,203	149,425,536
2033	2,413,333	100,877	2,514,211	124,636,667	42,188,205	166,824,871
2034	-	-	-	116,166,667	36,625,232	152,791,898
2035	-	-	-	109,870,000	31,338,779	141,208,779
2036	-	-	-	114,351,667	26,545,986	140,897,653
2037	-	-	-	109,910,000	21,664,515	131,574,515
2038	-	-	-	108,035,000	16,785,795	124,820,794
2039	-	-	-	98,140,000	11,848,100	109,988,100
2040	-	-	-	63,816,667	7,664,030	71,480,697
2041	-	-	-	47,113,333	5,189,154	52,302,488
2042	-	-	-	39,583,333	3,559,328	43,142,661
2043	-	-	-	29,586,667	2,188,550	31,775,217
2044	-	-	-	20,668,333	1,101,950	21,770,283
2045	-	-	-	10,291,667	301,942	10,593,608
	$ 89,386,667	$ 38,387,239	$ 127,773,906	$2,647,871,667	$1,579,333,840	$4,227,205,507



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Organization and Staffing

ORGANIZATION AND STAFFING

OPERATION AND MAINTENANCE EXPENSE BY DEPARTMENT

($ in thousands)

	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Board of Trustees and Pres/CEO Group				
Board of Trustees	$ 51	$ 46	$ 47	$ 50
Office of the President-CEO	997	1,010	967	808
Governmental Relations	943	1,064	1,019	1,304
Internal Audit	374	471	485	499
Board of Trustees and Pres/CEO Group Total	**2,365**	**2,590**	**2,517**	**2,662**
Engineering and Construction Group				
Office of the VP - Engineering and Construction	365	350	357	526
Collection and Distribution	1,451	1,585	2,227	1,712
Governmental Engineering	1,535	1,446	1,232	1,459
Infrastructure Planning	4,860	4,812	4,477	5,300
Operations and Maintenance Eng.	310	-	-	-
Pipeline Inspections	3,413	3,396	3,147	3,912
Production, Recycle, Treatment Engineering	2,907	2,855	3,419	3,263
Water Supply Implementaion	97	108	116	557
Engineering and Construction Group Total	**14,938**	**14,552**	**14,974**	**16,729**
Water Resources and Conservation Group				
Water Resources	36,162	40,774	54,006	50,918
Vista Ridge Water Supply Project	-	-	-	1,237
Conservation	4,790	4,021	4,329	4,274
Water Resources and Conservation Group Total	**40,952**	**44,796**	**58,335**	**56,429**
Operations Group				
Ofc of Chief Operating Officer	420	533	510	531
Environmental Services	480	-	-	-
Office of Energy Management	180	227	226	234
Resource Protection & Compliance Div	6,568	6,810	6,673	7,002
Laboratory Technical Services	2,239	2,272	2,281	1,994
Operations Group Total	**9,888**	**9,842**	**9,689**	**9,762**
Distribution and Collection Operations Group				
Office of the VP - Distribution and Collection	305	420	520	501
Construction and Maintenance	12,628	13,111	13,205	14,059
Distribution and Collection Support Services	686	734	631	652
Eastern Service Centers	11,383	10,121	9,313	10,680
Fleet Management	8,335	7,859	8,351	7,600
Western Service Centers	10,470	9,734	9,402	9,196
Distribution and Collection Operations Group Total	**43,807**	**41,979**	**41,421**	**42,686**
Facilities and Maintenance				
Facilities	13,515	12,415	11,465	11,088
Security	2,178	2,109	2,313	2,315
Maintenance Management	25,704	26,649	25,241	14,863
Facilities and Maintenance Total	**41,398**	**41,173**	**39,020**	**28,266**
Production and Treatment Operations				
Office of the VP - Production and Treatment	31	79	39	36
Ofc of Director - Production and Treatment Operations	107	335	295	483
Treatment Operations Management	20,617	20,311	19,725	20,946
Production	12,941	12,519	10,742	26,802
Production and Treatment Operations Total	**33,697**	**33,243**	**30,801**	**48,266**
Sewer System Improvements				
Capacity Assessment	678	2,218	2,694	2,261
Capacity Mgt O&M (CMOM)	5,040	6,877	8,332	6,877
Program Administration	5,162	6,686	6,076	9,468
Structural Sewer Assessment	1,706	7,232	9,692	6,619
Sewer System Improvements Total	**12,587**	**23,012**	**26,794**	**25,225**

OPERATION AND MAINTENANCE EXPENSE BY DEPARTMENT *(CONTINUED)*

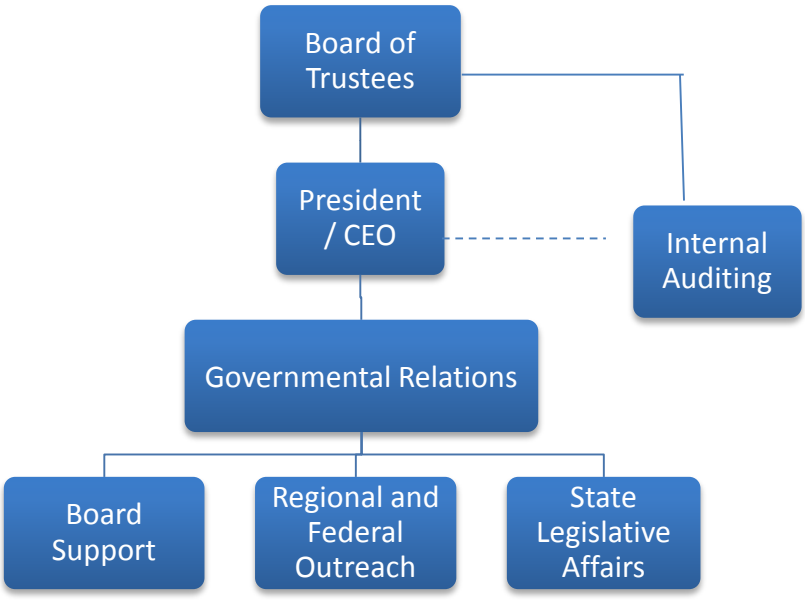
($ in thousands)

	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Financial Services Group				
Office of the CFO	317	320	373	329
Accounting	2,521	2,583	2,566	2,718
Business Planning	514	479	499	609
Continuous Improvement and Innovation	209	378	492	502
Purchasing	595	635	529	575
Treasury	985	2,384	1,405	928
Financial Services Group Total	**5,141**	**6,779**	**5,864**	**5,661**
Information Systems				
Administration	1,169	510	757	613
Application Services Section	1,999	2,442	3,147	3,365
Control System Programming	407	400	454	494
Information Services Programs	420	445	560	615
Information Technology	7,488	8,713	9,280	9,694
Information Systems Total	**11,482**	**12,510**	**14,197**	**14,781**
Customer Service				
Customer Service Administration	506	1,224	980	1,039
Billing	1,703	1,637	1,528	1,570
Customer Care	3,302	3,047	2,669	3,252
Field Operations	5,880	5,400	4,946	5,688
Quality	383	323	266	349
Customer Service Total	**11,774**	**11,631**	**10,389**	**11,898**
Legal Group				
Legal	3,438	4,583	4,575	3,631
Contracting	1,431	1,429	1,403	1,505
Corporate Real Estate	799	795	966	645
Legal Group Total	**5,668**	**6,807**	**6,945**	**5,782**
Human Resources Group				
Human Resources Div	2,041	1,903	3,285	3,302
Risk Management	1,290	1,586	3,004	2,987
Claims	546	477	-	-
Corporate Training	738	458	-	-
Office of the VP - Human Resources	460	383	-	-
Safety and Environmental Health	981	543	-	-
Human Resources Group Total	**6,056**	**5,349**	**6,289**	**6,288**
Communications and External Affairs				
Communications Administration	325	320	327	423
Communications	1,351	1,110	1,332	1,366
External Relations	1,057	1,177	1,290	1,139
Communications and External Affairs Total	**2,733**	**2,607**	**2,949**	**2,928**
Other Requirements	**24,484**	**21,251**	**31,763**	**29,695**
Total O&M before Capitalized Costs	**266,969**	**278,122**	**301,950**	**307,057**
Capitalized Cost	(31,176)	(31,103)	(36,165)	(38,160)
Grand Total	**$ 235,793**	**$ 247,019**	**$ 265,785**	**$ 268,897**

BOARD OF TRUSTEES AND PRESIDENT/CEO

The Board of Trustee and President /CEO Group provides the leadership and guidance for all of SAWS. It consists of the Board of Trustees, Office of the President/CEO, Board support functions, Regional and Federal Outreach, State Legislative Affairs, 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 overall policy and guidance of the system.
- **President/CEO** – The President/CEO is responsible and accountable for overall leadership and management of the San Antonio Water System. Following the guidance and direction of the Board of Trustees and City Council, the President/CEO implements policy, directs and works alongside employees to achieve SAWS' mission and goals.
- **Governmental Relations –** Identifies and manages critical issues that have public impact and require the attention of Executive Management. Manages key strategic relationships with elected officials and agencies at the county, regional, state and federal levels.
- **Internal Audit -** 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 *(CONTINUED)*

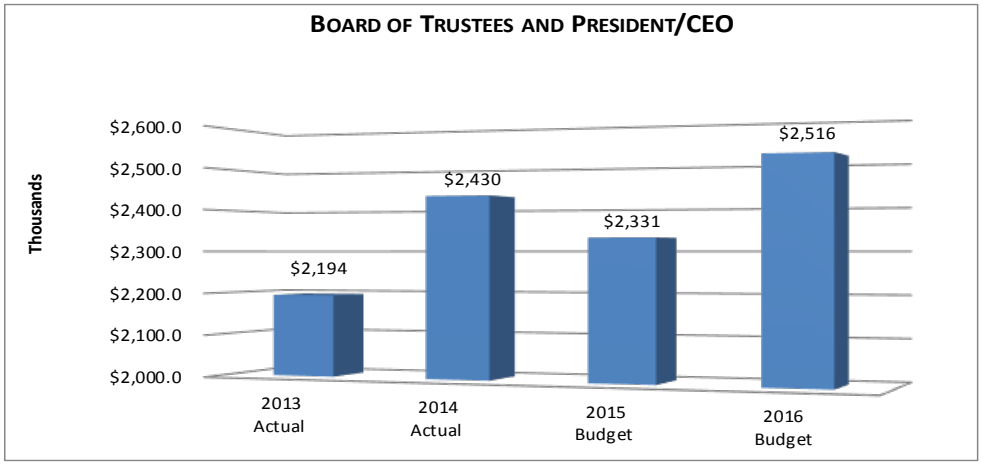
Board of Trustees and Pres/CEO

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 1,759	$ 1,720	$ 1,772	$ 1,945
Contractual Services	598	860	731	702
Materials and Supplies	7	10	15	15
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**2,365**	**2,590**	**2,517**	**2,662**
Capitalized Cost	(170)	(160)	(186)	(146)
Intercenter Transfers	-	1	-	-
Grand Total	**$ 2,194**	**$ 2,430**	**$ 2,331**	**$ 2,516**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Board of Trustees	$ 51	$ 46	$ 47	$ 50
Office of the President-CEO	997	1,010	967	808
Governmental Relations	943	1,064	1,019	1,304
Internal Audit	374	471	485	499
O&M Before Capitalized Cost Total	**2,365**	**2,590**	**2,517**	**2,662**
Capitalized Cost	(170)	(160)	(186)	(146)
Intercenter Transfers	-	1	-	-
Grand Total	**$ 2,194**	**$ 2,430**	**$ 2,331**	**$ 2,516**

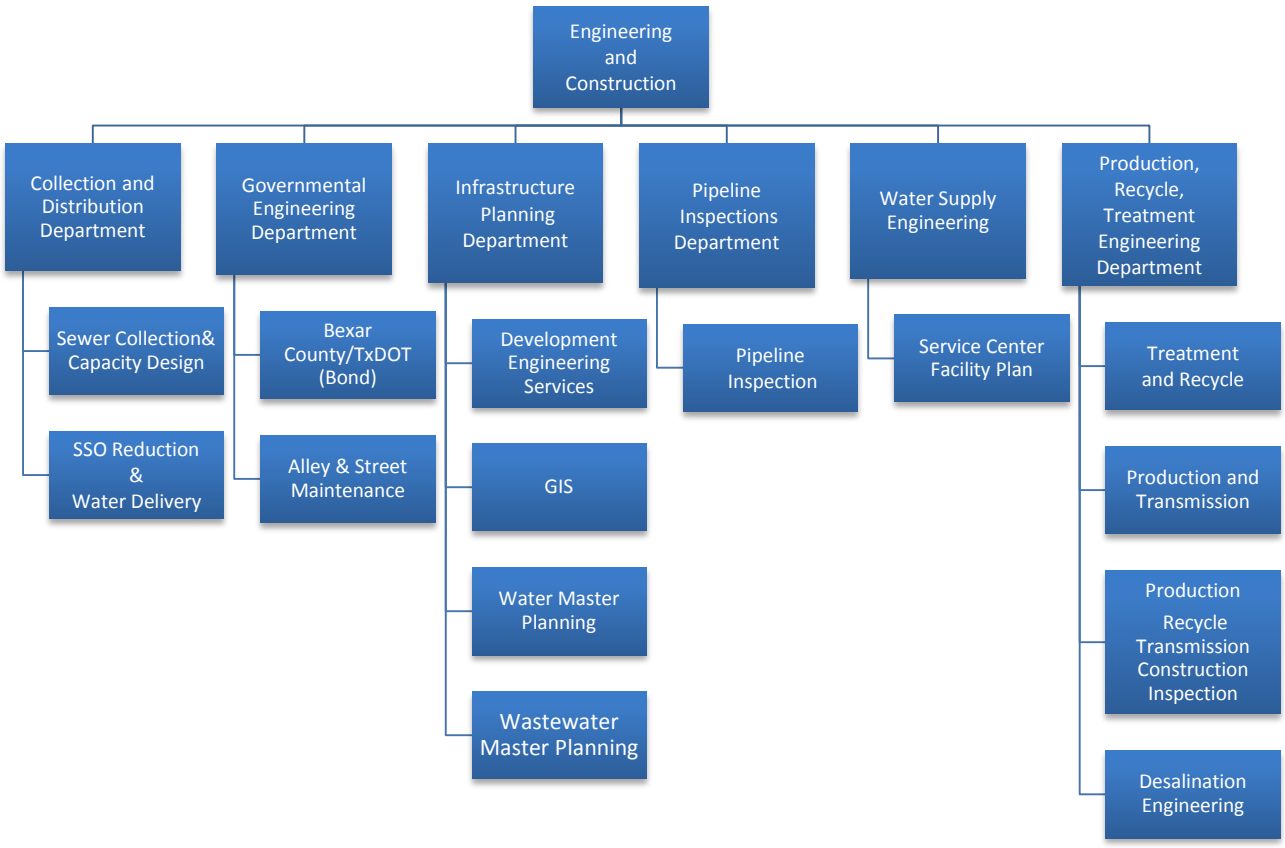
Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Office of the President-CEO	6.0	5.2	4.5	3.6
Governmental Relations	-	-	-	7.1
Board of Trustees Support	2.0	0.9	0.9	-
Internal Audit	5.0	3.9	3.6	3.6
Total Full-Time Equivalent Positions	**13.0**	**10.0**	**8.9**	**14.2**



ENGINEERING AND CONSTRUCTION

Engineering and Construction 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:

- **Collection & Distribution Engineering** – Plans and coordinates design activities and manages construction for new and rehabilitated water distribution system and wastewater collection system projects.
- **Governmental Engineering –** Manages all intergovernmental capital projects.
- **Infrastructure Planning** – Manages impact fee program, maintains infrastructure maps and GIS databases, develops water and wastewater master plans, and coordinates infrastructure necessary for new development.
- **Pipeline Inspections** – Inspects pipeline construction projects for water and sewer and water supply projects.
- **Water Supply Engineering** – Plans, coordinates design activities and manages construction for water supply integration and service center projects.
- **Production, Recycle, Treatment Engineering** – Plans, coordinates design activities and manages construction for new water supply development, potable and recycled water production facilities and wastewater treatment plants.



ENGINEERING AND CONSTRUCTION *(CONTINUED)*

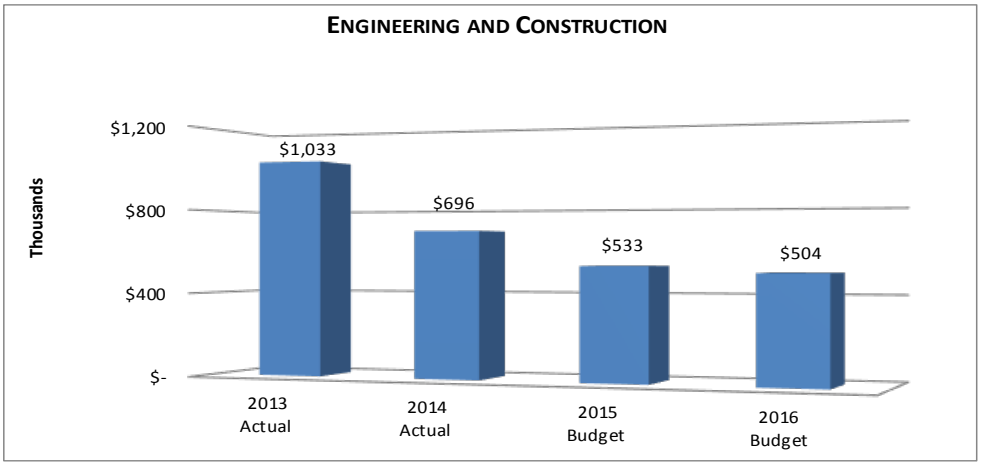
Engineering and Construction

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 14,148	$ 13,646	$ 13,537	$ 15,324
Contractual Services	727	833	1,384	1,323
Materials and Supplies	63	73	53	81
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**14,938**	**14,552**	**14,974**	**16,729**
Capitalized Cost	(13,900)	(13,824)	(14,441)	(16,226)
Intercenter Transfers	(4)	(32)	-	-
Grand Total	**$ 1,033**	**$ 696**	**$ 533**	**$ 504**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Office of the VP - Engineering and Construction	$ 365	$ 350	$ 357	$ 526
Collection and Distribution	1,451	1,585	2,227	1,712
Governmental Engineering	1,535	1,446	1,232	1,459
Infrastructure Planning	4,860	4,812	4,477	5,300
Operations and Maintenance Eng.	310	-	-	-
Pipeline Inspections	3,413	3,396	3,147	3,912
Production, Recycle, Treatment Engineering	2,907	2,855	3,419	3,263
Water Supply Implementaion	97	108	116	557
O&M Before Capitalized Cost Total	**14,938**	**14,552**	**14,974**	**16,729**
Capitalized Cost	(13,900)	(13,824)	(14,441)	(16,226)
Intercenter Transfers	(4)	(32)	-	-
Grand Total	**$ 1,033**	**$ 696**	**$ 533**	**$ 504**

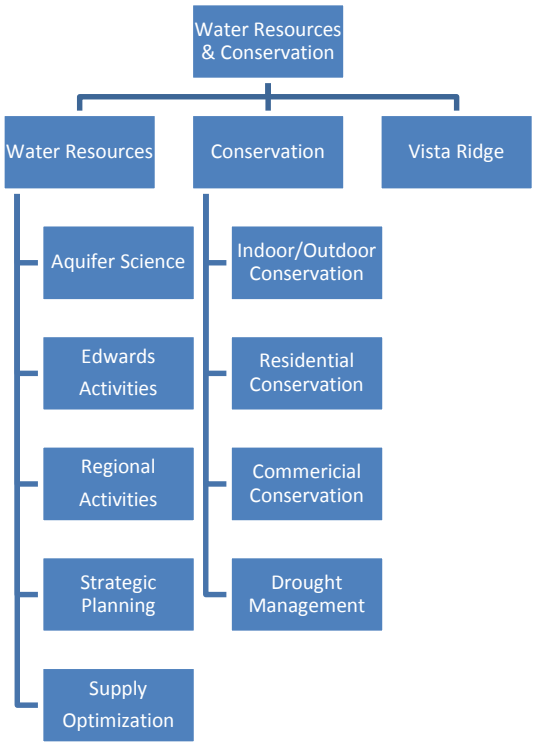
Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Office of the VP - Engineering and Construction	6.0	2.6	2.7	2.7
Collection and Distribution	17.0	15.3	22.4	19.4
Governmental Engineering	26.0	16.9	13.7	16.3
Infrastructure Planning	57.5	58.7	52.1	60.9
Operations and Maintenance Eng.	9.0	-	-	-
Pipeline Inspections	63.0	58.2	48.4	50.7
Production, Recycle, Treatment Engineering	36.0	29.1	29.1	29.6
Water Supply Implementaion	-	-	-	4.9
Total Full-Time Equivalent Positions	**214.5**	**180.9**	**168.4**	**184.5**



WATER RESOURCES AND CONSERVATION

The Water Resources and Conservation group is responsible for the development, management and conservation of water supplies, as well as drought management and water rights acquisitions. SAWS' proven conservation programs have become a cornerstone of the community's long-term water management strategy. 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 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.
- **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.
- **Vista Ridge** – Manages SAWS' obligations and interests in a Public Private Partnership (P3) contract with Abengoa Vista Ridge (AVR) for the annual supply of 50,000 acre-feet of a new, non-Edwards source of water for San Antonio. SAWS staff will monitor AVR activities during the Development and Construction phases of the contract.



WATER RESOURCES AND CONSERVATION *(CONTINUED)*

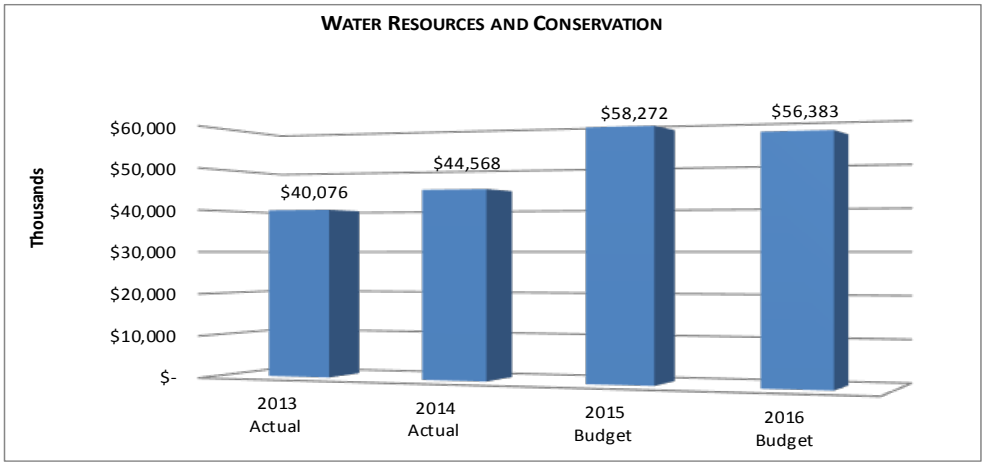
Water Resources and Conservation

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 3,287	$ 2,859	$ 2,412	$ 2,530
Contractual Services	36,078	41,476	55,917	53,891
Materials and Supplies	1,587	460	7	8
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**40,952**	**44,796**	**58,335**	**56,429**
Capitalized Cost	(874)	(223)	(63)	(46)
Intercenter Transfers	(2)	(4)	-	-
Grand Total	**$ 40,076**	**$ 44,569**	**$ 58,272**	**$ 56,383**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Water Resources	$ 36,162	$ 40,774	$ 54,006	$ 50,918
Vista Ridge Water Supply Project	-	-	-	1,237
Conservation	4,790	4,021	4,329	4,274
O&M Before Capitalized Cost Total	**40,952**	**44,796**	**58,335**	**56,429**
Capitalized Cost	(874)	(223)	(63)	(46)
Intercenter Transfers	(2)	(4)	-	-
Grand Total	**$ 40,076**	**$ 44,569**	**$ 58,272**	**$ 56,383**

Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Water Resources	21.0	19.2	11.1	10.3
Vista Ridge Water Supply Project	-	-	-	1.0
Conservation	25.6	19.4	19.4	19.3
Total Full-Time Equivalent Positions	**46.6**	**38.6**	**30.5**	**30.6**



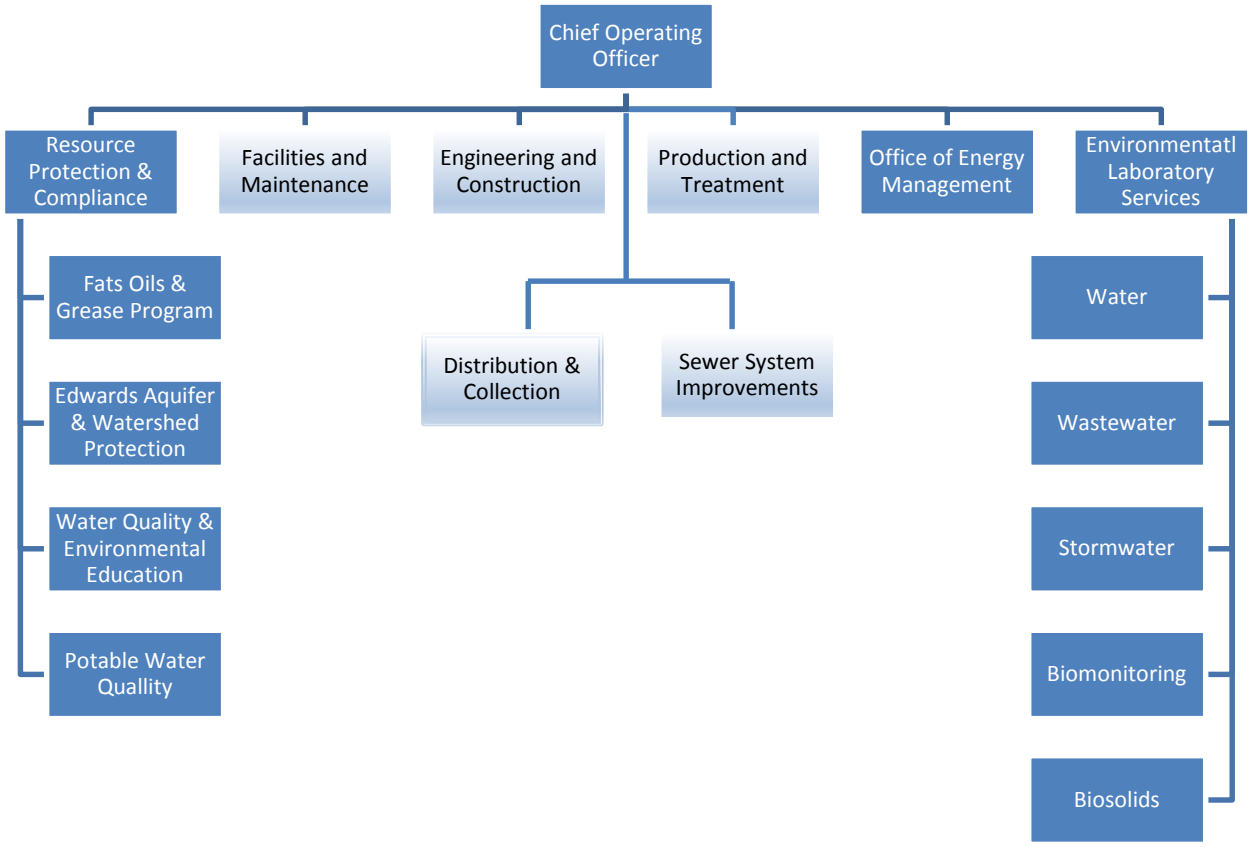
OPERATIONS GROUP

The Operations Group is managed by the Chief Operating Officer (COO). The COO also oversees the Production & Treatment, Distribution & Collection, Sewer System Improvements, Engineering & Construction, and Facilities & Maintenance Groups. The following departments also report to the Chief Operating Officer through the Operations Group:

- **Office of Energy Management** – Manages the electric and gas metering and bill review and payment process. Develops the energy budget, tracks expenses and analyzes 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; and utilizes an extensive sampling and monitoring network for compliance purposes.

- **Environmental Laboratory Services (ELS)** – 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. ELS is accredited by the Texas Commission on Environmental Quality (TCEQ) under the National Environmental Laboratory Accreditation Program.



OPERATIONS GROUP *(CONTINUED)*

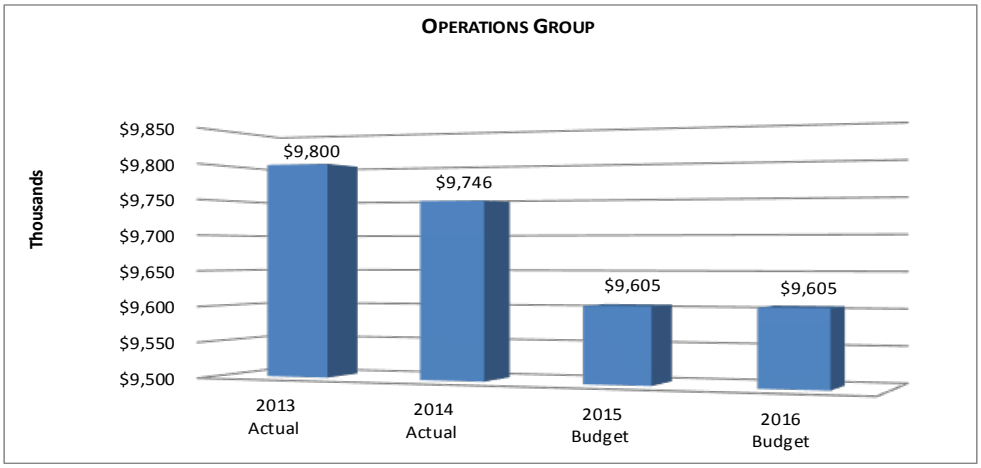
Operations Group

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 8,372	$ 8,141	$ 7,783	$ 7,889
Contractual Services	1,040	1,230	1,399	1,432
Materials and Supplies	475	469	507	441
Other Charges	1	2	-	-
O&M Before Capitalized Cost Total	**9,888**	**9,842**	**9,689**	**9,762**
Capitalized Cost	(84)	(77)	(85)	(157)
Intercenter Transfers	(3)	(19)	-	-
Grand Total	**$ 9,800**	**$ 9,746**	**$ 9,605**	**$ 9,605**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Ofc of Chief Operating Officer	$ 420	$ 533	$ 510	$ 531
Environmental Services	480	-	-	-
Office of Energy Management	180	227	226	234
Resource Protection & Compliance Div	6,568	6,810	6,673	7,002
Laboratory Technical Services	2,239	2,272	2,281	1,994
O&M Before Capitalized Cost Total	**9,888**	**9,842**	**9,689**	**9,762**
Capitalized Cost	(84)	(77)	(85)	(157)
Intercenter Transfers	(3)	(19)	-	-
Grand Total	**$ 9,800**	**$ 9,746**	**$ 9,605**	**$ 9,605**

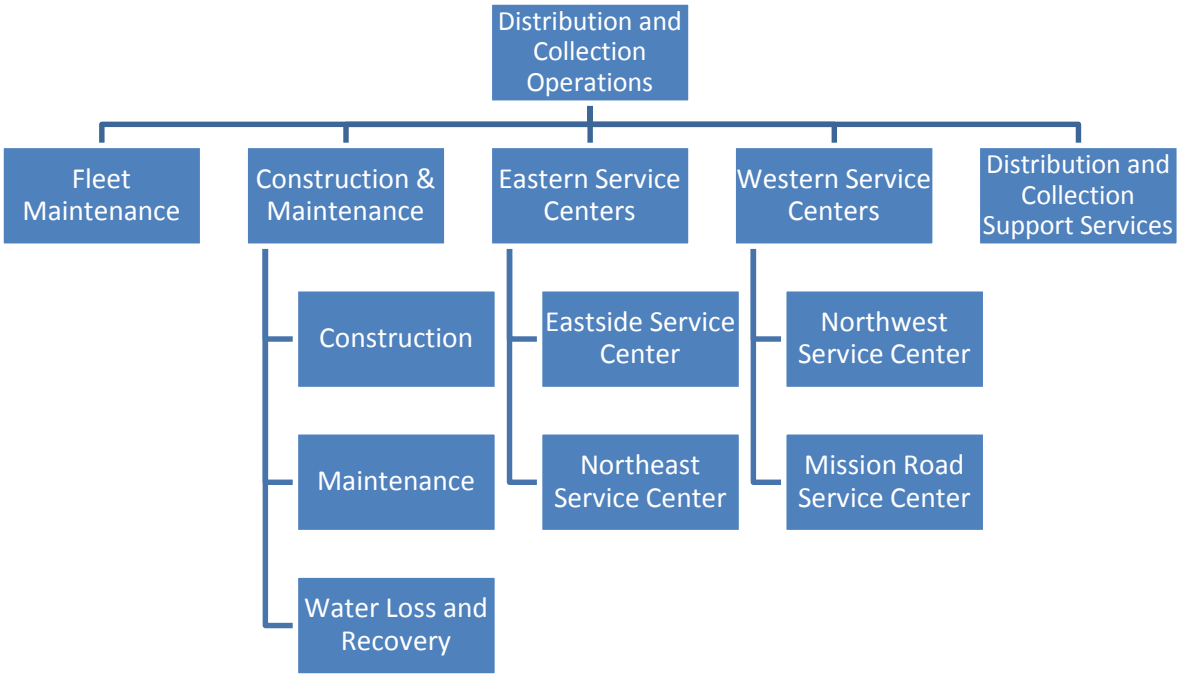
Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Ofc of Chief Operating Officer	9.5	2.6	3.6	3.6
Environmental Services	25.0	5.6	-	-
Office of Energy Management	-	1.7	2.7	2.7
Resource Protection & Compliance Div	71.0	72.6	70.9	76.1
Laboratory Technical Services	23.0	23.0	21.0	18.3
Total Full-Time Equivalent Positions	**128.5**	**105.6**	**98.1**	**100.6**



DISTRIBUTION AND COLLECTION

The Distribution and Collection Operations Group operates, maintains and repairs over 5,300 miles of sewer mains and over 5,300 miles of water mains, and approximately 120 miles of recycled water distribution lines ensuring our customers receive uninterrupted, quality water and associated wastewater services. This is accomplished by the following departments:

- **Fleet Maintenance** – Provides comprehensive maintenance services for all SAWS vehicles and equipment. The Fleet Department also manages vehicle replacement and disposal.
- **Construction & Maintenance** - Conducts in-house construction services, including asphalt and concrete services; preventative maintenance programs to ensure the integrity of water and wastewater mains including sewer televising and cleaning; a leak detection program to ensure water leaks are identified and repaired; fire hydrant maintenance; and a meter repair and maintenance shop.
- **Eastern & Western Service Centers** – SAWS service centers are staffed with the necessary resources to properly repair and maintain underground water, wastewater, recycle, and chilled water infrastructure throughout the SAWS service area. SAWS distribution and collection crews are mobilized from four strategically located service centers throughout the city: Eastside, Mission Road (south central), Northeast and Northwest.
- **Distribution and Collection Support Services** – Provides administrative support to the other departments within the group including invoice processing, data management, service contract management, materials acquisition and notification services for maintenance crews.



DISTRIBUTION AND COLLECTION *(CONTINUED)*

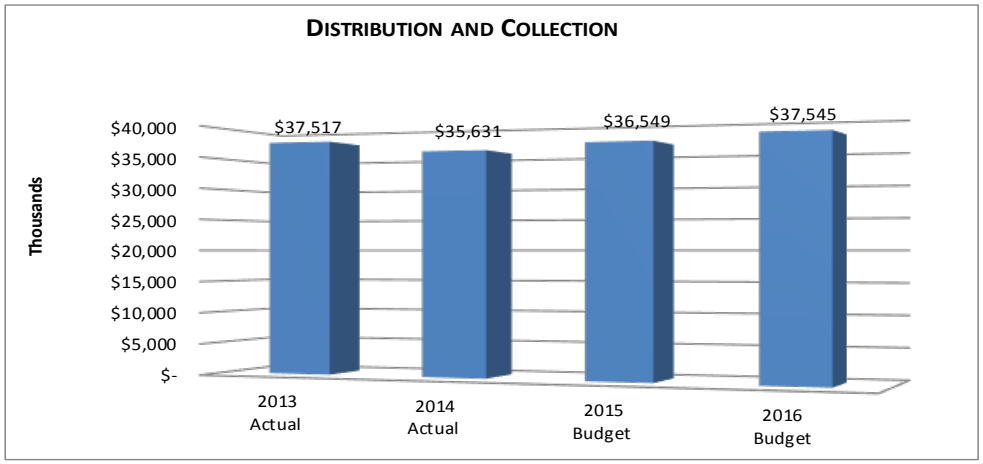
Distribution and Collection

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 26,944	$ 26,210	$ 25,783	$ 27,267
Contractual Services	6,829	6,862	6,311	6,725
Materials and Supplies	10,024	8,898	9,327	8,695
Other Charges	11	9	-	-
O&M Before Capitalized Cost Total	**43,807**	**41,979**	**41,421**	**42,686**
Capitalized Cost	(5,940)	(5,792)	(4,873)	(5,142)
Intercenter Transfers	(351)	(557)	-	-
Grand Total	**$ 37,517**	**$ 35,631**	**$ 36,549**	**$ 37,545**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Office of the VP - Distribution and Collection	$ 305	$ 420	$ 520	$ 501
Construction and Maintenance	12,628	13,111	13,205	14,059
Distribution and Collection Support Services	686	734	631	652
Eastern Service Centers	11,383	10,121	9,313	10,680
Fleet Management	8,335	7,859	8,351	7,600
Western Service Centers	10,470	9,734	9,402	9,196
O&M Before Capitalized Cost Total	**43,807**	**41,979**	**41,421**	**42,686**
Capitalized Cost	(5,940)	(5,792)	(4,873)	(5,142)
Intercenter Transfers	(351)	(557)	-	-
Grand Total	**$ 37,517**	**$ 35,631**	**$ 36,549**	**$ 37,545**

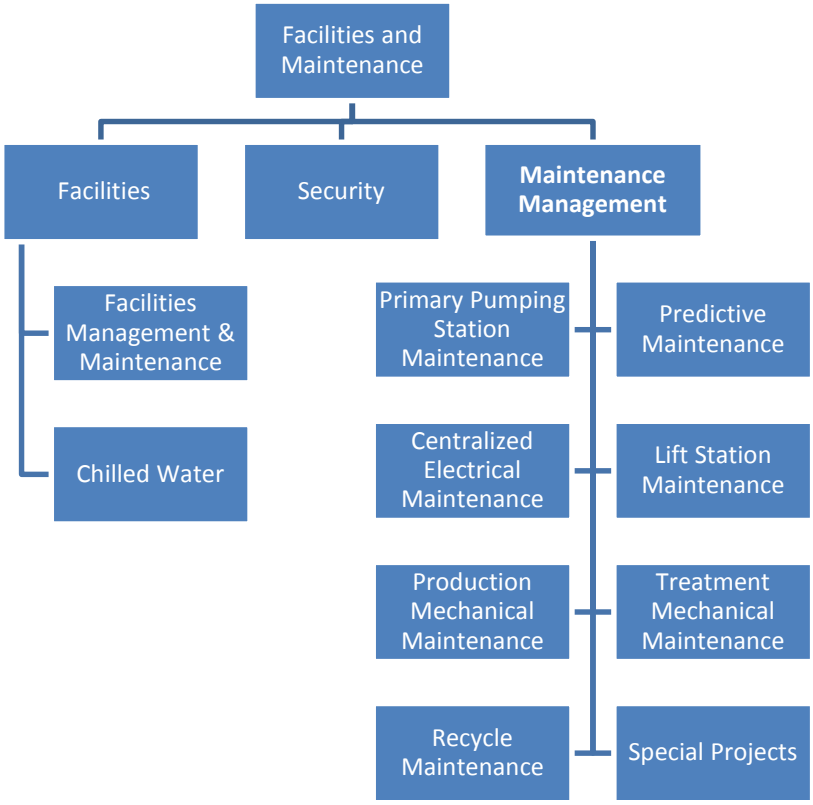
Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Office of the VP - Distribution and Collection	2.0	1.8	3.5	3.5
Construction and Maintenance	176.0	174.7	180.8	189.0
Distribution and Collection Support Services	12.5	11.0	10.6	10.6
Eastern Service Centers	152.0	168.1	125.3	122.0
Fleet Management	47.5	41.2	39.6	38.7
Western Service Centers	120.0	99.8	99.7	111.8
Total Full-Time Equivalent Positions	**510.0**	**496.5**	**459.5**	**475.6**



FACILITIES AND MAINTENANCE

This group is responsible for maintaining SAWS' headquarters; service centers; production, treatment, and lift station facilities. Additionally the operation of SAWS' chilled water facilities is handled by this group. This group consists of the following departments:

- **Facilities** – several areas fall under this department.
  - *Chilled Water* is responsible for the production of chilled water to provide centralized thermal services to federal, city and private facilities in San Antonio.
  - *Facilities Management and Maintenance* provides building maintenance and management services at SAWS' facilities.
- **Security** – Manages a proactive security program and associated support contracts for all SAWS facilities.
- **Maintenance Management** – Manages centralized mechanical and electrical maintenance across all SAWS production, treatment and lift station facilities, and the Aquifer Storage & Recovery (ASR). The department is also responsible for maintenance of the recycle water system outfalls.



FACILITIES AND MAINTENANCE *(CONTINUED)*

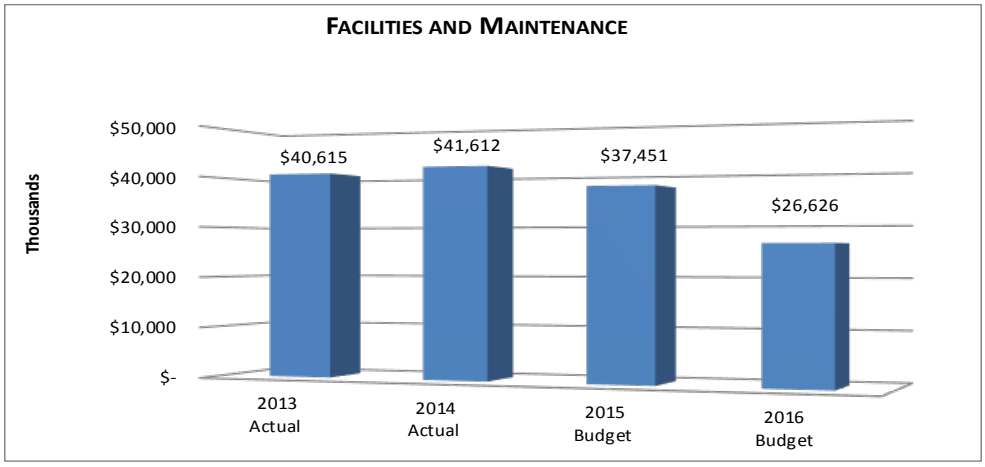
Facilities and Maintenance

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 13,998	$ 13,547	$ 13,113	$ 13,724
Contractual Services	23,667	23,572	22,886	11,822
Materials and Supplies	3,732	4,055	3,020	2,720
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**41,398**	**41,173**	**39,020**	**28,266**
Capitalized Cost	(379)	(359)	(1,569)	(1,639)
Intercenter Transfers	(404)	798	-	-
Grand Total	**$ 40,615**	**$ 41,612**	**$ 37,451**	**$ 26,626**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Facilities	$ 13,515	$ 12,415	$ 11,465	$ 11,088
Security	2,178	2,109	2,313	2,315
Maintenance Management	25,704	26,649	25,241	14,863
O&M Before Capitalized Cost Total	**41,398**	**41,173**	**39,020**	**28,266**
Capitalized Cost	(379)	(359)	(1,569)	(1,639)
Intercenter Transfers	(404)	798	-	-
Grand Total	**$ 40,615**	**$ 41,612**	**$ 37,451**	**$ 26,626**

Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Facilities	60.0	62.7	48.2	47.5
Security	9.0	7.8	9.0	9.0
Maintenance Management	119.0	155.7	141.6	142.8
Total Full-Time Equivalent Positions	**188.0**	**226.2**	**198.9**	**199.3**

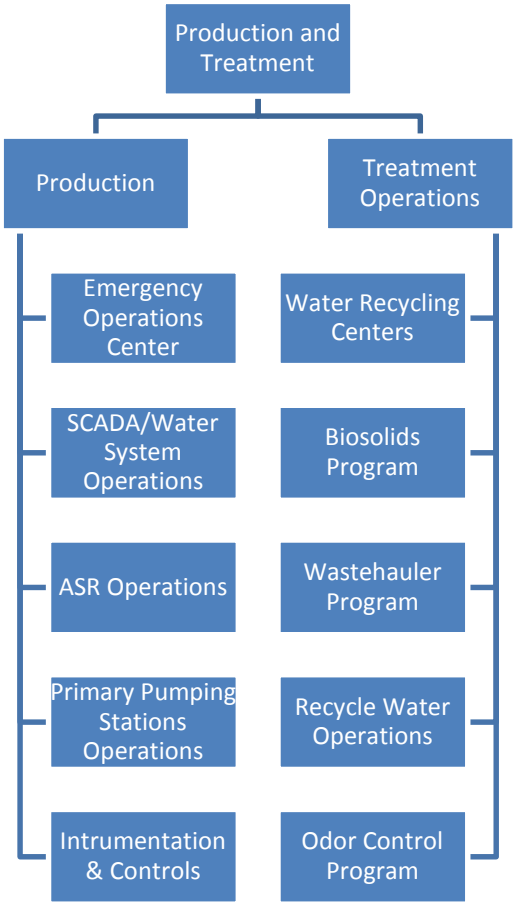


PRODUCTION AND TREATMENT

The Production and Treatment Operations group provides the essential function of managing the 24-hour/7 days-a-week 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:

- **Production –** Manages the production and distribution of potable water across SAWS service area. Manages centralized instrumentation and maintenance functions for all SAWS supervisory control and data acquisition system (SCADA) services. The Emergency Operations Center provides a 24-hour emergency center and reports/dispatches crews for water leaks, main breaks and overall tactical response to problems with the system.

- **Treatment Operations –** 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. Operates the recycle water system outfalls and manages environmental flows to the river.



PRODUCTION AND TREATMENT *(CONTINUED)*

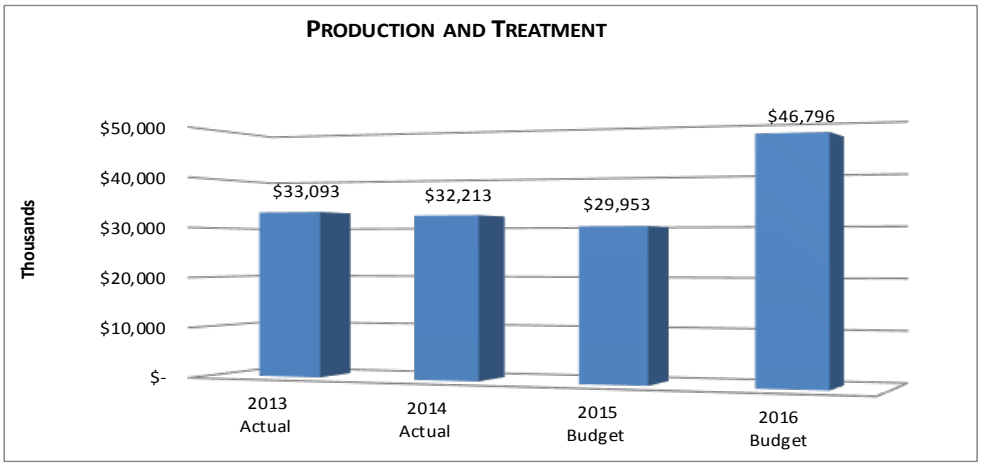
Production and Treatment

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 10,419	$ 9,247	$ 9,174	$ 10,135
Contractual Services	16,827	18,357	16,039	30,998
Materials and Supplies	6,451	5,639	5,589	7,134
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**33,697**	**33,243**	**30,801**	**48,266**
Capitalized Cost	(1,110)	(1,188)	(848)	(1,470)
Intercenter Transfers	505	157	-	-
Grand Total	**$ 33,093**	**$ 32,213**	**$ 29,953**	**$ 46,796**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Office of the VP - Production and Treatment	$ 31	$ 79	$ 39	$ 36
Ofc of Director - Production and Treatment Opera	107	335	295	483
Treatment Operations Management	20,617	20,311	19,725	20,946
Production	12,941	12,519	10,742	26,802
O&M Before Capitalized Cost Total	**33,697**	**33,243**	**30,801**	**48,266**
Capitalized Cost	(1,110)	(1,188)	(848)	(1,470)
Intercenter Transfers	505	157	-	-
Grand Total	**$ 33,093**	**$ 32,213**	**$ 29,953**	**$ 46,796**

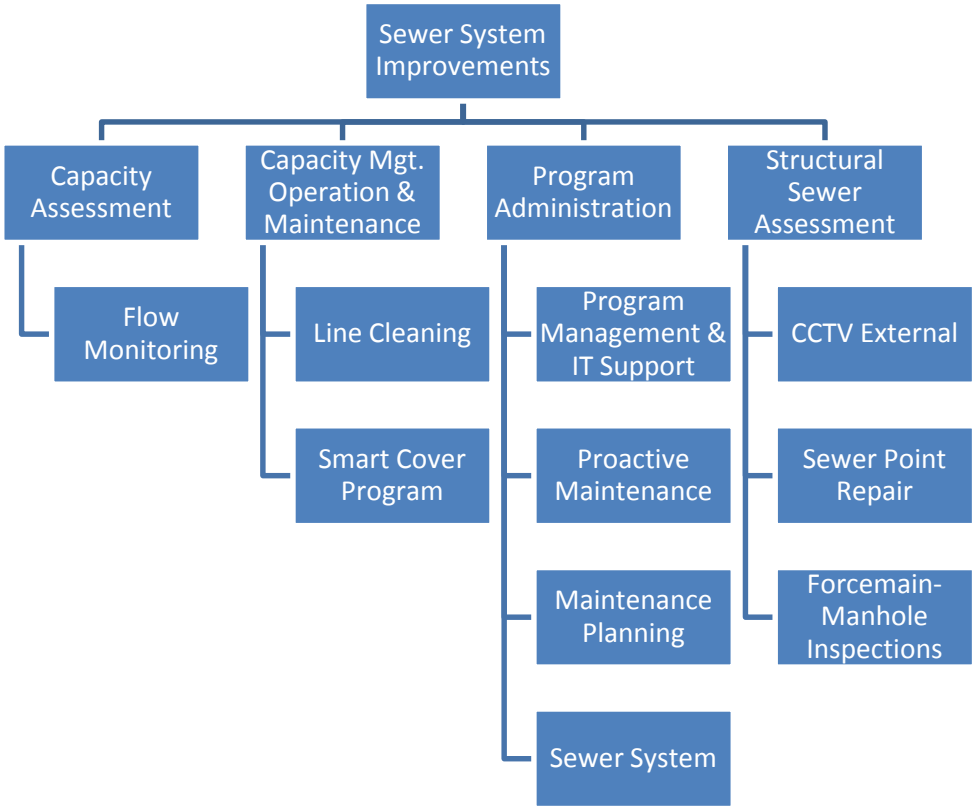
Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Office of the VP - Production and Treatment				
Ofc of Director - Production and Treatment Opera	-	3.3	3.0	4.5
Treatment Operations Management	97.5	58.3	54.7	64.9
Production	85.0	79.0	78.0	77.0
Total Full-Time Equivalent Positions	**182.5**	**140.6**	**135.7**	**146.3**



SEWER SYSTEM IMPROVEMENTS

The Sewer System Improvements Department is responsible for developing, implementing and administering various programs designed to reduce sanitary sewer overflows 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 a series of hydraulic modeling and investigative steps focused on identifying and prioritizing capacity constraints.
- **Capacity Management Operation & Maintenance (CMOM)** – Executes a comprehensive program encompassing activities to optimize the performance of the WCTS related to SSO reduction, including a system-wide cleaning 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 and reporting pertaining to 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 *(CONTINUED)*

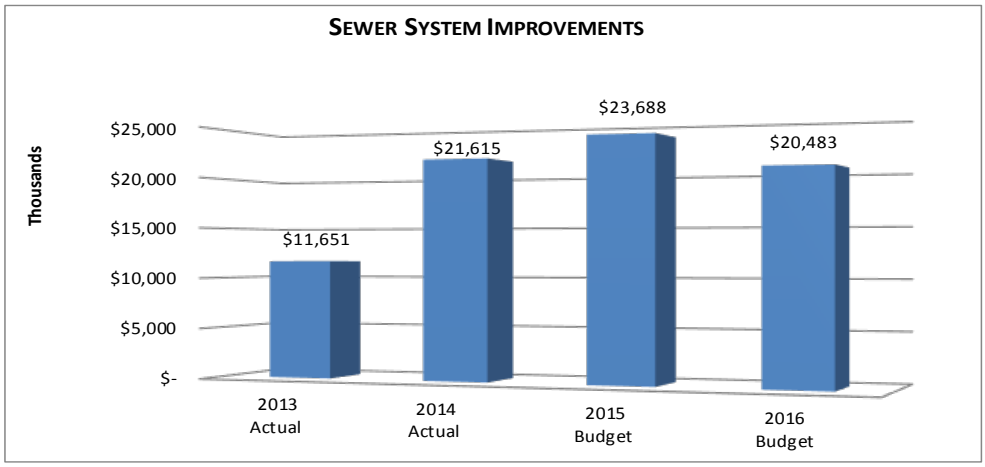
Sewer System Improvements

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 2,210	$ 2,473	$ 2,418	$ 3,187
Contractual Services	10,162	20,052	24,138	21,884
Materials and Supplies	215	487	238	153
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**12,587**	**23,012**	**26,794**	**25,225**
Capitalized Cost	(984)	(1,423)	(3,106)	(4,742)
Intercenter Transfers	48	26	-	-
Grand Total	**$ 11,651**	**$ 21,615**	**$ 23,688**	**$ 20,483**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Capacity Assessment	$ 678	$ 2,218	$ 2,694	$ 2,261
Capacity Mgt O&M (CMOM)	5,040	6,877	8,332	6,877
Program Administration	5,162	6,686	6,076	9,468
Structural Sewer Assessment	1,706	7,232	9,692	6,619
O&M Before Capitalized Cost Total	**12,587**	**23,012**	**26,794**	**25,225**
Capitalized Cost	(984)	(1,423)	(3,106)	(4,742)
Intercenter Transfers	48	26	-	-
Grand Total	**$ 11,651**	**$ 21,615**	**$ 23,688**	**$ 20,483**

Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Capacity Assessment	1.0	-	-	-
Capacity Mgt O&M (CMOM)	13.0	-	-	-
Program Administration	22.0	29.0	29.0	35.0
Structural Sewer Assessment	2.0	-	-	4.0
Total Full-Time Equivalent Positions	**38.0**	**29.0**	**29.0**	**39.0**

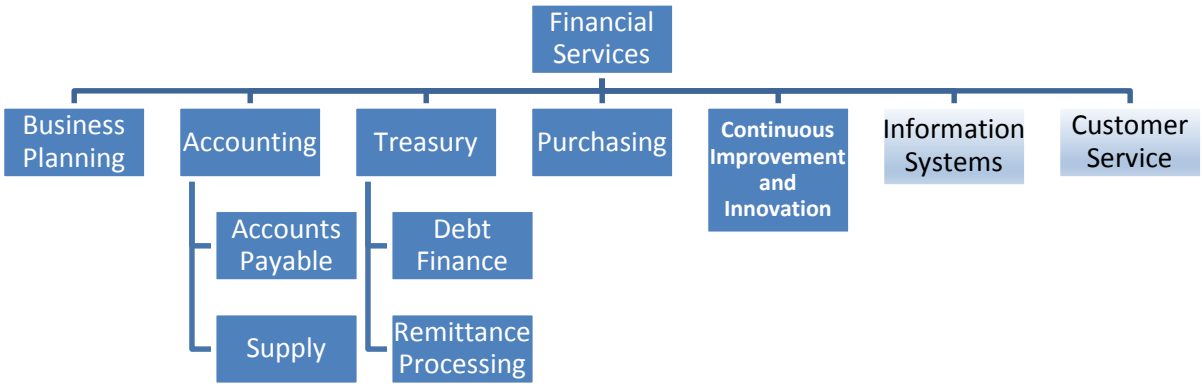


FINANCIAL SERVICES

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:

- **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.
- **Accounting** – Responsible for accurate and timely accounting and financial reporting through the general accounting, property accounting, payroll, accounts payable and supply departments.
- **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.
- **Continuous Improvement and Innovation** – Conducts performance reviews and process analysis across the organization to streamline operations, maximize budgetary resources, promote efficiencies, enhance customer service and implement innovative management practices

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



FINANCIAL SERVICES *(CONTINUED)*

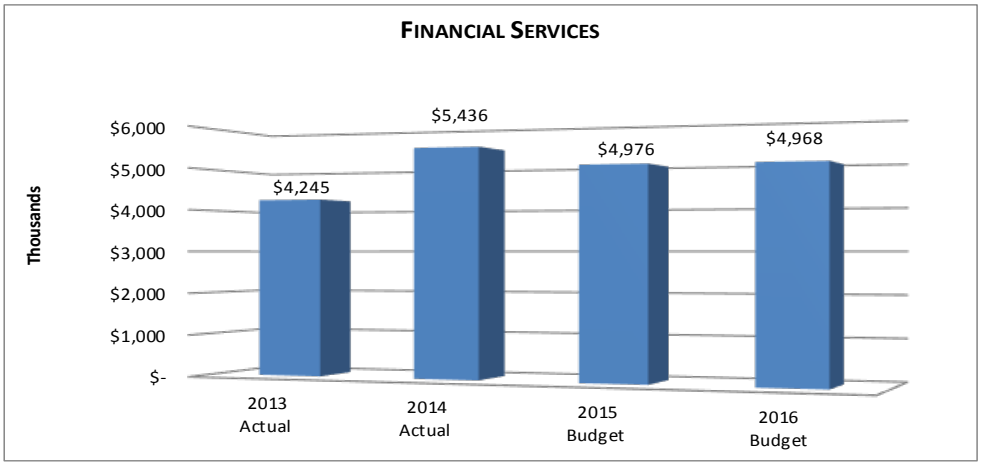
Financial Services

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 4,598	$ 4,629	$ 4,632	$ 4,893
Contractual Services	393	697	635	676
Materials and Supplies	73	123	75	74
Other Charges	78	1,331	523	18
O&M Before Capitalized Cost Total	**5,141**	**6,779**	**5,864**	**5,661**
Capitalized Cost	(894)	(1,340)	(888)	(693)
Intercenter Transfers	(2)	(3)	-	-
Grand Total	**$ 4,245**	**$ 5,436**	**$ 4,976**	**$ 4,968**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Office of the CFO	$ 317	$ 320	$ 373	$ 329
Accounting	2,521	2,583	2,566	2,718
Business Planning	514	479	499	609
Continuous Improvement and Innovation	209	378	492	502
Purchasing	595	635	529	575
Treasury	985	2,384	1,405	928
O&M Before Capitalized Cost Total	**5,141**	**6,779**	**5,864**	**5,661**
Capitalized Cost	(894)	(1,340)	(888)	(693)
Intercenter Transfers	(2)	(3)	-	-
Grand Total	**$ 4,245**	**$ 5,436**	**$ 4,976**	**$ 4,968**

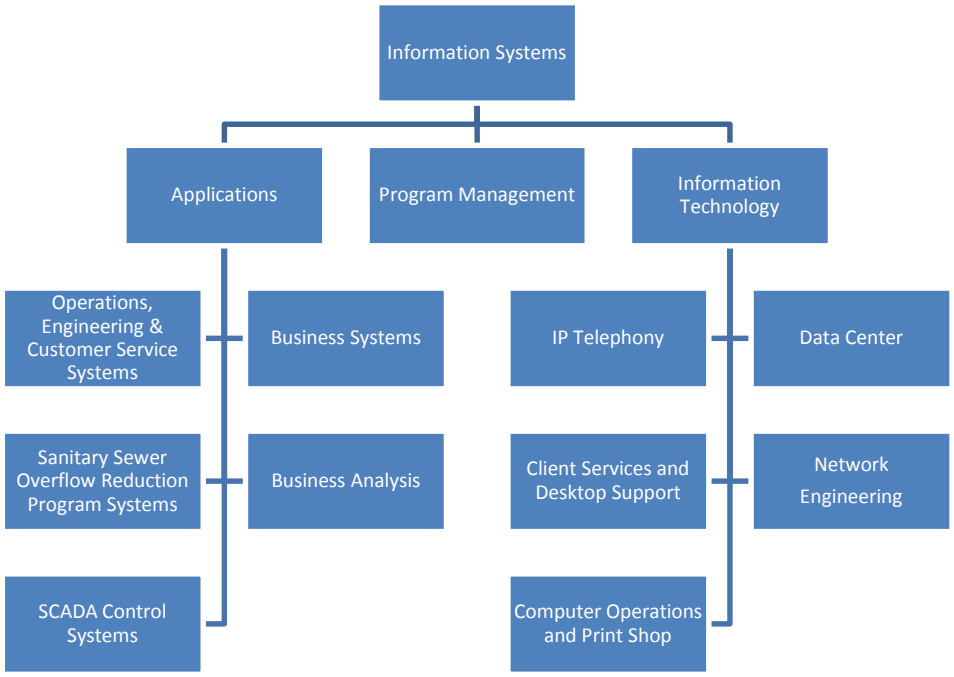
Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Office of the CFO	2.0	1.7	1.8	1.8
Accounting	36.0	32.0	34.7	34.3
Business Planning	8.0	5.2	5.4	6.2
Continuous Improvement and Innovation	-	2.6	2.7	2.7
Purchasing	6.0	6.5	5.7	5.9
Treasury	12.0	12.9	12.1	12.0
Total Full-Time Equivalent Positions	**64.0**	**60.9**	**62.3**	**62.8**



INFORMATION SYSTEMS

SAWS Information Systems teams deliver quality, cost-effective applications and information technology services, promoting innovation to sustain growth and enable SAWS to better serve the community. Information Systems teams include:

- **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.
- **Program Management –** Supports SAWS' technology initiatives through program administration, project management, business process re-engineering, quality assurance, and organizational change management.
- **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.
    - *Network Engineering* – Provides network and internet services, including all aspects of network architecture and engineering, cyber security, wired and wireless network infrastructure for SAWS facilities.
    - *IP Telephony* – Manages SAWS telecommunication services including IP telephony, teleconferencing, call center systems, interactive voice response systems, recording systems, digital radio systems and 911 systems.
    - *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.
    - *Computer Operations and Print Shop* – Provides computer operations and bill printing services as well as copy services.



INFORMATION SYSTEMS *(CONTINUED)*

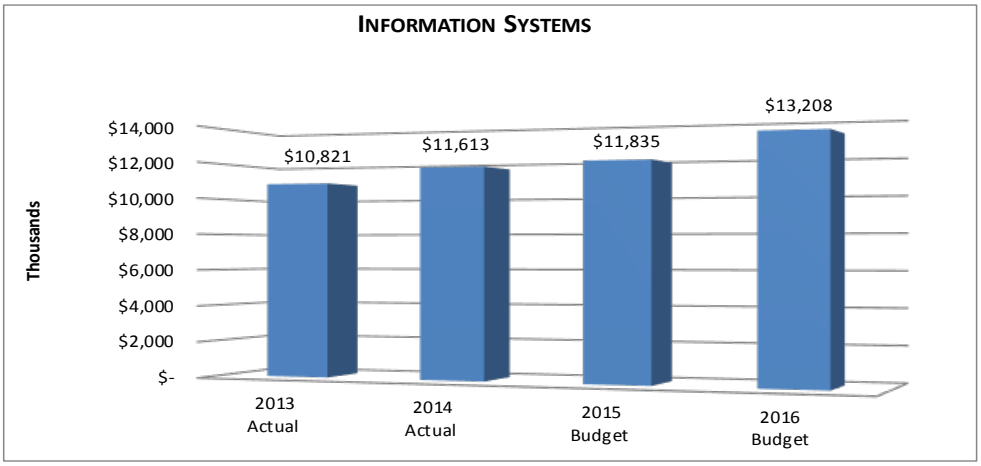
Information Systems

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 4,961	$ 4,995	$ 5,989	$ 6,634
Contractual Services	6,133	7,100	7,743	7,724
Materials and Supplies	388	415	466	423
Other Charges	-	-	-	-
O&M Before Capitalized Cost Total	**11,482**	**12,510**	**14,197**	**14,781**
Capitalized Cost	(661)	(899)	(2,362)	(1,573)
Intercenter Transfers	-	2	-	-
Grand Total	**$ 10,821**	**$ 11,613**	**$ 11,835**	**$ 13,208**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Administration	$ 1,169	$ 510	$ 757	$ 613
Application Services Section	1,999	2,442	3,147	3,365
Control System Programming	407	400	454	494
Information Services Programs	420	445	560	615
Information Technology	7,488	8,713	9,280	9,694
O&M Before Capitalized Cost Total	**11,482**	**12,510**	**14,197**	**14,781**
Capitalized Cost	(661)	(899)	(2,362)	(1,573)
Intercenter Transfers	-	2	-	-
Grand Total	**$ 10,821**	**$ 11,613**	**$ 11,835**	**$ 13,208**

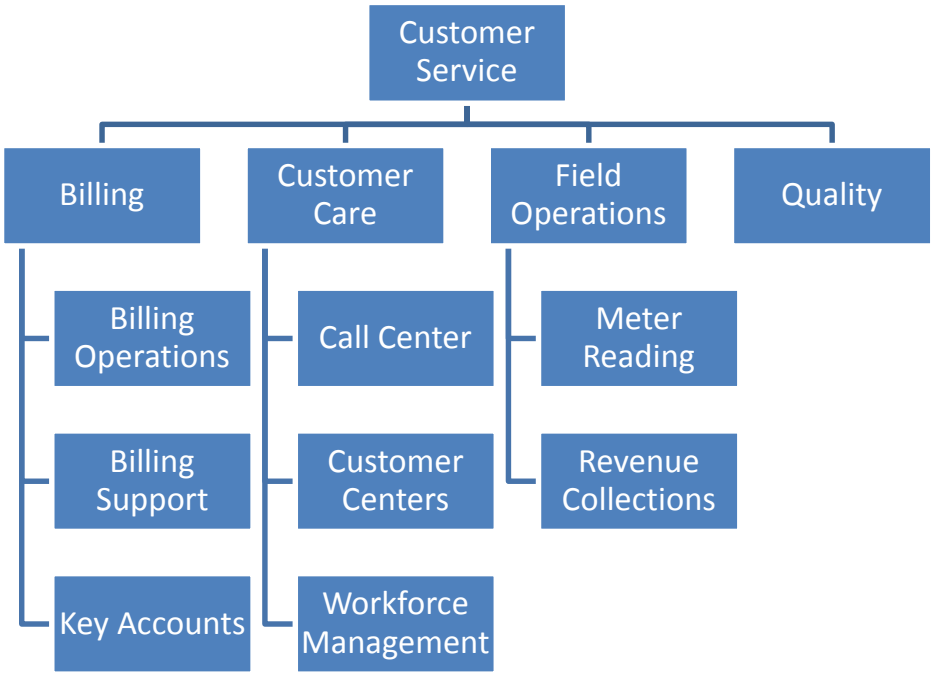
Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Administration	3.0	8.2	3.6	2.7
Application Services Section	15.0	9.8	13.7	14.6
Control System Programming	-	4.2	3.7	4.5
Information Services Programs	6.0	5.2	6.3	7.1
Information Technology	37.0	30.6	38.3	41.0
Total Full-Time Equivalent Positions	**61.0**	**58.0**	**65.4**	**69.8**



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; resolves customer service billing issues.
- **Customer Care** – Handles all inbound telephone customer inquiries regarding billing, account information, service problems and payments.
    - *Customer Centers* – Four full service walk-in locations provide friendly, personal interaction with our residential and commercial customers.
- **Field Operations** – Responsible for meter reading; service turn-on/turn-off requests; and collection of delinquent accounts.
- **Quality –** Responsible for training and process improvements throughout Customer Service



CUSTOMER SERVICE *(CONTINUED)*

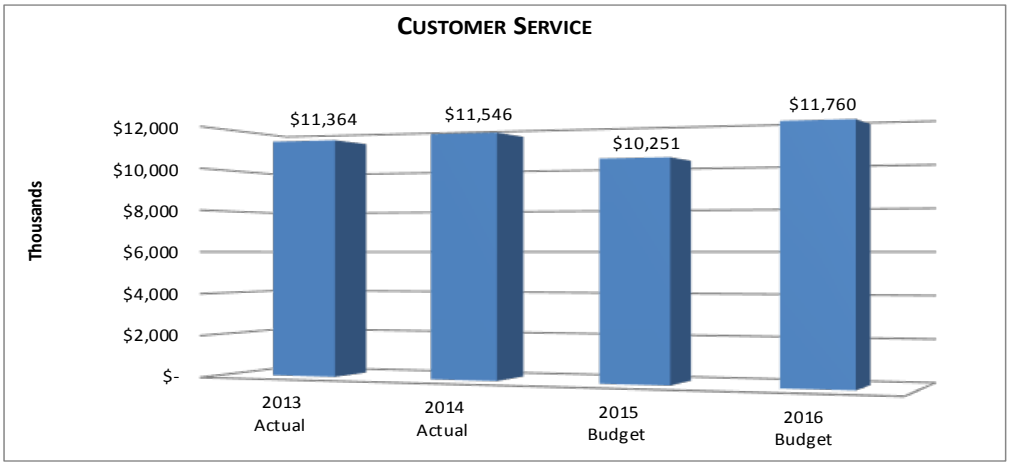
Customer Service

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 11,131	$ 10,226	$ 9,808	$ 10,577
Contractual Services	437	1,207	394	1,126
Materials and Supplies	202	198	185	188
Other Charges	4	-	3	6
O&M Before Capitalized Cost Total	**11,774**	**11,631**	**10,389**	**11,898**
Capitalized Cost	(304)	(1)	(139)	(138)
Intercenter Transfers	(106)	(85)	-	-
Grand Total	**$ 11,364**	**$ 11,546**	**$ 10,251**	**$ 11,760**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Customer Service Administration	$ 506	$ 1,224	$ 980	$ 1,039
Billing	1,703	1,637	1,528	1,570
Customer Care	3,302	3,047	2,669	3,252
Field Operations	5,880	5,400	4,946	5,688
Quality	383	323	266	349
O&M Before Capitalized Cost Total	**11,774**	**11,631**	**10,389**	**11,898**
Capitalized Cost	(304)	(1)	(139)	(138)
Intercenter Transfers	(106)	(85)	-	-
Grand Total	**$ 11,364**	**$ 11,546**	**$ 10,251**	**$ 11,760**

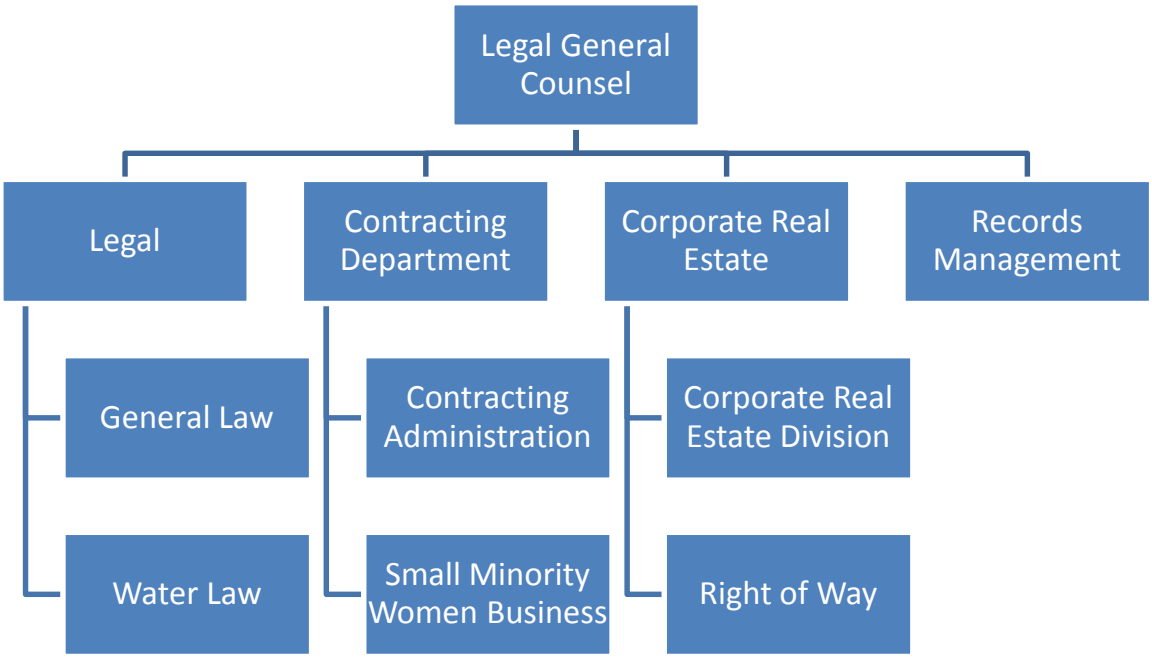
Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Customer Service Administration	6.0	5.6	9.3	8.4
Billing	31.0	31.9	29.6	30.0
Customer Care	51.0	61.3	53.9	63.2
Field Operations	96.0	110.3	98.0	103.7
Quality	11.0	5.6	3.7	4.7
Total Full-Time Equivalent Positions	**195.0**	**214.7**	**194.6**	**209.9**



LEGAL

The Legal Group is headed by the Vice President and General Counsel. The 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 and 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 *(CONTINUED)*

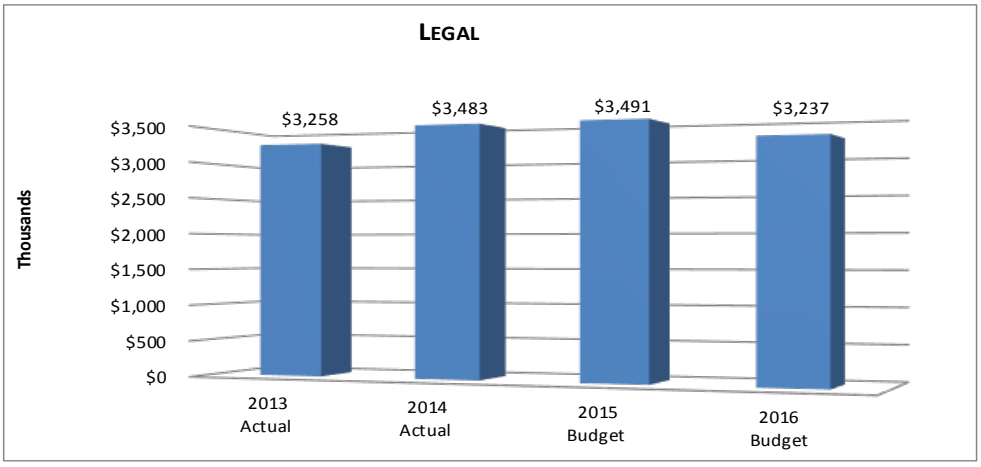
Legal

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 3,561	$ 3,522	$ 3,546	$ 3,741
Contractual Services	1,964	3,272	3,379	2,021
Materials and Supplies	19	13	20	20
Other Charges	124	-	-	-
O&M Before Capitalized Cost Total	**5,668**	**6,807**	**6,945**	**5,782**
Capitalized Cost	(2,408)	(3,324)	(3,454)	(2,544)
Intercenter Transfers	(1)	-	-	-
Grand Total	**$ 3,258**	**$ 3,483**	**$ 3,491**	**$ 3,237**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Legal	$ 3,438	$ 4,583	$ 4,575	$ 3,631
Contracting	1,431	1,429	1,403	1,505
Corporate Real Estate	799	795	966	645
O&M Before Capitalized Cost Total	**5,668**	**6,807**	**6,945**	**5,782**
Capitalized Cost	(2,408)	(3,324)	(3,454)	(2,544)
Intercenter Transfers	(1)	-	-	-
Grand Total	**$ 3,258**	**$ 3,483**	**$ 3,491**	**$ 3,237**

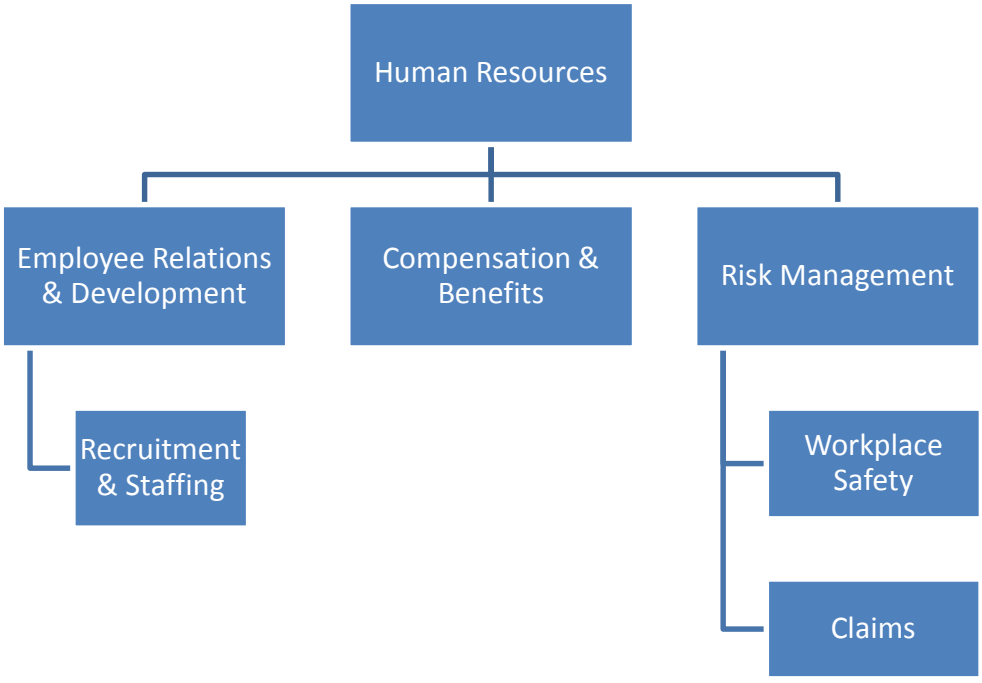
Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Legal	22.0	18.9	20.0	17.4
Contracting	8.0	6.9	7.1	7.1
Corporate Real Estate	11.5	11.8	10.3	12.9
Total Full-Time Equivalent Positions	**41.5**	**37.6**	**37.4**	**37.4**



HUMAN RESOURCES

The Human Resource 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:

- **Employment Relations & Development** – Develops and administers a variety of employee programs including career development, leadership training, orientations, internships and mentoring programs. 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.
- **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 *(CONTINUED)*

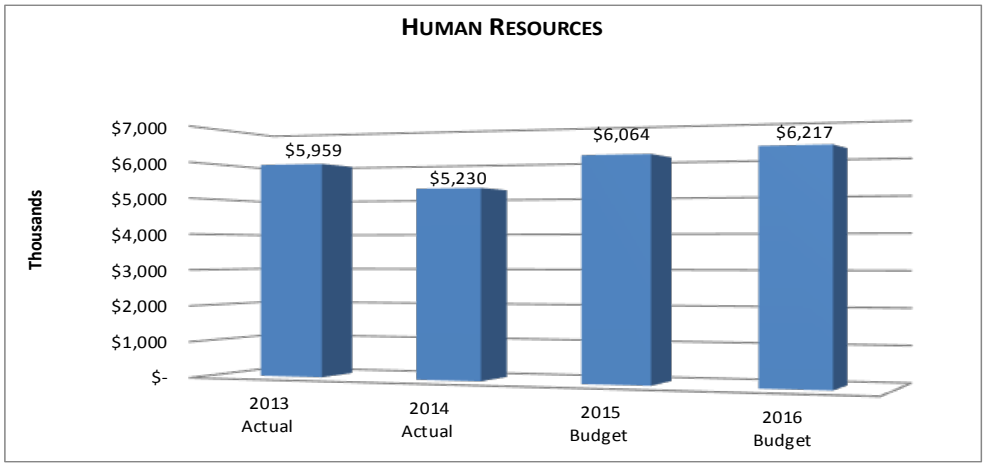
Human Resources

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 3,670	$ 2,995	$ 3,368	$ 3,474
Contractual Services	1,064	829	1,279	1,407
Materials and Supplies	40	23	53	46
Other Charges	1,282	1,501	1,590	1,361
O&M Before Capitalized Cost Total	**6,056**	**5,349**	**6,289**	**6,288**
Capitalized Cost	(97)	(119)	(225)	(71)
Intercenter Transfers	-	-	-	-
Grand Total	**$ 5,959**	**$ 5,230**	**$ 6,064**	**$ 6,217**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Human Resources Div	$ 2,041	$ 1,903	$ 3,285	$ 3,302
Risk Management	1,290	1,586	3,004	2,987
Claims	546	477	-	-
Corporate Training	738	458	-	-
Office of the VP - Human Resources	460	383	-	-
Safety and Environmental Health	981	543	-	-
O&M Before Capitalized Cost Total	**6,056**	**5,349**	**6,289**	**6,288**
Capitalized Cost	(97)	(119)	(225)	(71)
Intercenter Transfers	-	-	-	-
Grand Total	**$ 5,959**	**$ 5,230**	**$ 6,064**	**$ 6,217**

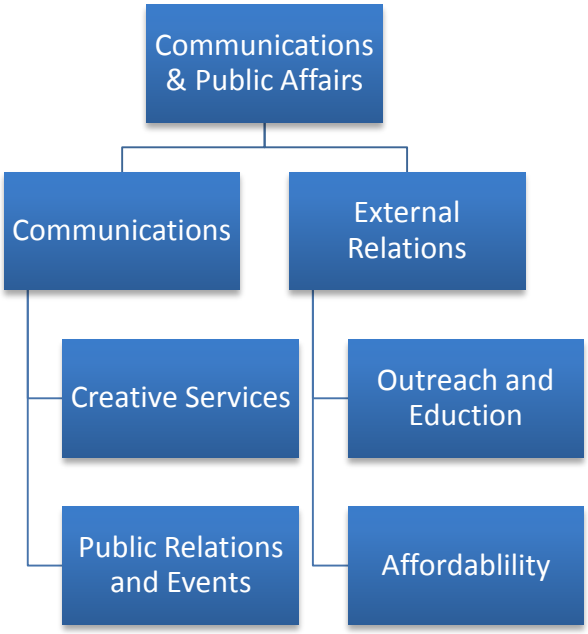
Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Human Resources Div	24.0	13.8	24.0	23.1
Risk Management	23.0	0.9	16.6	16.9
Claims	-	7.4	-	-
Corporate Training	-	6.1	-	-
Office of the VP - Human Resources	5.0	3.5	-	-
Safety and Environmental Health	-	11.3	-	-
Total Full-Time Equivalent Positions	**52.0**	**42.9**	**40.6**	**40.1**



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, social media, 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 Relations** – Manages outreach efforts with customers, neighborhood and civic leaders and San Antonio City Council members. Develops and conducts adult and youth educational programs to inform and promote water awareness in our community. .



COMMUNICATIONS AND EXTERNAL AFFAIRS *(CONTINUED)*

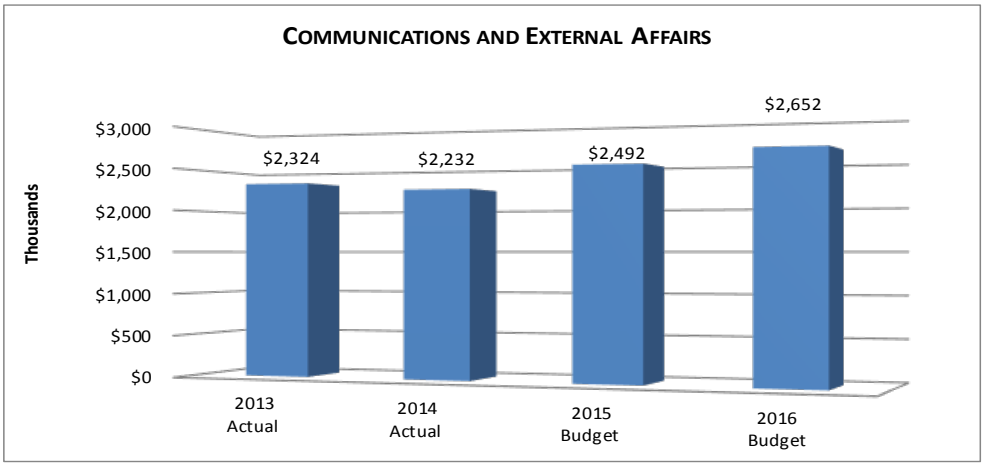
Communications and External Affairs

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 1,709	$ 1,609	$ 1,879	$ 1,866
Contractual Services	945	931	972	963
Materials and Supplies	79	68	95	95
Other Charges	-	-	4	4
O&M Before Capitalized Cost Total	**2,733**	**2,607**	**2,949**	**2,928**
Capitalized Cost	(409)	(375)	(457)	(275)
Intercenter Transfers	-	-	-	-
Grand Total	**$ 2,324**	**$ 2,232**	**$ 2,492**	**$ 2,652**

Expenditures by Department	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Communications Administration	$ 325	$ 320	$ 327	$ 423
Communications	1,351	1,110	1,332	1,366
External Relations	1,057	1,177	1,290	1,139
O&M Before Capitalized Cost Total	**2,733**	**2,607**	**2,949**	**2,928**
Capitalized Cost	(409)	(375)	(457)	(275)
Intercenter Transfers	-	-	-	-
Grand Total	**$ 2,324**	**$ 2,232**	**$ 2,492**	**$ 2,652**

Full-time Equivalent Positions	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Communications Administration	3.0	2.1	2.2	3.6
Communications	13.0	10.7	11.1	11.1
External Relations	15.5	11.7	12.5	6.3
Total Full-Time Equivalent Positions	**31.5**	**24.6**	**25.9**	**21.0**



OTHER REQUIREMENTS

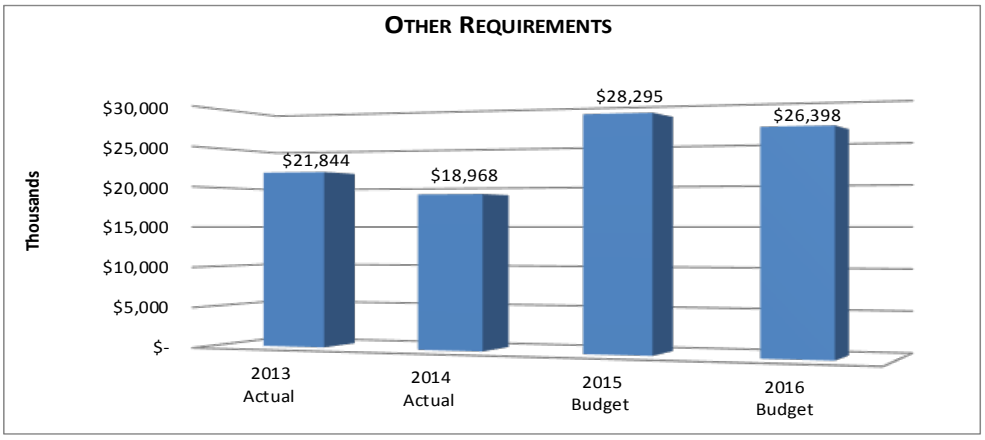
Other Requirements has been established to account for operations and maintenance expenses that relate to the overall organization and are difficult to associate with specific departments. These expenses affect all departments across the organization and are accumulated within this department to facilitate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

Other Requirements

($ in thousands)

Expenditures by Type	2013 Actual	2014 Actual	2015 Budget	2016 Budget
O&M Before Capitalized Cost				
Salaries and Fringe Benefits	$ 12,978	$ 11,419	$ 21,539	$ 19,747
Contractual Services	330	405	1,961	1,473
Materials and Supplies	-	-	-	-
Other Charges	11,176	9,427	8,263	8,476
O&M Before Capitalized Cost Total	**24,484**	**21,251**	**31,763**	**29,695**
Capitalized Cost	(2,640)	(2,283)	(3,468)	(3,298)
Intercenter Transfers	-	-	-	-
Grand Total	**$ 21,844**	**$ 18,968**	**$ 28,295**	**$ 26,398**

Full-time Equivalent Positions	2013 Actual	2014 Actual	2015 Budget	2016 Budget
Other Requirements	-	-	5.3	2.7
Total Full-Time Equivalent Positions	**-**	**-**	**5.3**	**2.7**



AUTHORIZED POSITIONS

As previously noted, the 2016 budget process involved the development of a single budget for the combined SAWS/DSP operations and maintenance expense. Similarly, the staffing requirements necessary to support operations is also determined on a combined basis. Through a cost allocation process, separate operations and maintenance budgets and the underlying staff requirements are produced for each entity.

The following table summarizes the total budgeted staffing requirements in full-time equivalent (FTE) positions for 2013 through 2016 for SAWS and DSP combined as well as the total allocated to each entity.

	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Positions Allocated to SAWS	1,766.1	1,665.3	1,560.5	1,633.8
Positions Allocated to DSP	234.0	223.1	223.1	196.2
Total Positions	**2,000.1**	**1,888.4**	**1,783.5**	**1,830.0**

While the positons allocated to SAWS increased from 1,560.5 in 2015 to 1,633.8 in 2016, more than half of the increase was due to changes made in the assumptions used to allocate costs and positions between SAWS and DSP. On a combined basis, only 46.5 positions were added in 2016. These new positions will provide additional resources to address water leak repairs and EPA consent decree requirements, improve revenue collections, and increase customer call center staffing,

The following table shows the distribution of budgeted FTE positions allocated to SAWS by each organizational unit for 2013 through 2016. 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 below in order to be consistent with the current year organizational structure.

	2013 Budget	2014 Budget	2015 Budget	2016 Budget
Board of Trustees and Pres/CEO	13.0	10.0	8.9	14.2
Engineering and Construction	214.5	180.9	168.4	184.5
Water Resources and Conservation	46.6	38.6	30.5	30.6
Operations	128.5	105.6	98.1	100.6
Distribution and Collection Operations	510.0	496.5	459.5	475.6
Facilities and Maintenance	188.0	226.2	198.9	199.3
Production and Treatment Operations	182.5	139.8	135.7	146.3
Sewer System Improvements	38.0	29.0	29.0	39.0
Financial Services	64.0	60.9	62.3	62.8
Information Systems	61.0	58.0	65.4	69.8
Customer Service	195.0	214.7	194.6	209.9
Legal	41.5	37.6	37.4	37.4
Human Resources	52.0	42.9	40.6	40.1
Communications and External Affairs	31.5	24.6	25.9	21.0
Other Requirements	-	-	5.3	2.7
Total	**1,766.1**	**1,665.3**	**1,560.5**	**1,633.8**

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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. The 2016 program totals $235.7 million and is summarized in the table below.

$ in thousands	Water Supply	Water Delivery	Wastewater	Chilled Water	Total
Sources of Funds					
System Revenues	$ 2,953	$ 10,075	$ 16,803	$ 667	$ 30,499
Capital Recovery Fees	6,000	16,980	38,011	-	60,991
Debt Proceeds	20,187	44,999	74,739	4,236	144,162
Total	**$ 29,141**	**$ 72,055**	**$ 129,553**	**$ 4,903**	**$ 235,651**
Uses of Funds					
Corporate	$ -	$ 15,016	$ 8,208	$ -	$ 23,224
Water Resources	29,141				29,141
Collection Facilities			22,852		22,852
Governmental		24,382	1,289		25,671
Mains - New		4,246	86,392		90,638
Main Replacements - Water		7,735	6,123		13,859
Production		20,676			20,676
Treatment			4,688		4,688
Chilled Water				4,903	4,903
Total	**$ 29,141**	**$ 72,055**	**$ 129,553**	**$ 4,903**	**$ 235,651**

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 2016 Water Supply CIP of $29.1 million is primarily related to designing infrastructure improvements and land acquisition necessary to integrate 50,000 acre-feet of new water supplies from the Vista Ridge project into the SAWS distribution system.

The 2016 Water Delivery CIP totals $72.1 million and includes $20.7 million for the rehabilitation of aging production facilities and production technology improvements. Also included is $29.3 million for governmental projects that support street, highway and drainage improvements for the City of San Antonio, Bexar County, and TXDOT, $14.3 million to continue the expansion and remodeling of service centers, and $7.7 million in projects focused on reducing water loss in water mains.

The 2016 Wastewater CIP totals $129.6 million and includes $92.5 million for projects identified as necessary to reduce SSOs including the replacement or expansion of sewer mains due to condition or capacity deficiencies and the rehabilitation or elimination of lift stations that contribute to SSOs. Also included is $22.9 million for

governmental projects, $7.4 million to continue the expansion and remodeling of service centers and $4.7 million to design certain improvements to the Dos Rios Water Recycling Center.

The overall funding split for the 2016 water production and delivery and the wastewater collection and treatment program is 86% repairs and replacements and 14% additional capacity to support new growth and development.

The 2016 program was developed using a refined prioritization process which SAWS began using in 2006. Projects generated by the CIP stakeholder groups from SAWS' Treatment, Production, Master Planning, Facilities Engineering, Operations, and Distribution and Collection departments were reviewed and scored by a CIP Planning Group consisting of submitting vice presidents, directors and managers. The scoring process addressed the business risk exposure, independent of available funds, through a derivative of the Failure Modes and Effects Analysis (FMEA) methodology. FMEA provides a structured approach to the analysis of risk through a composite index that considers potential impact of failure, probability of occurrence, and ability to mitigate the impact. Projects were totaled by dollar amount and compared to the long term funding strategy. The 2016 and 5-year CIP project lists were reviewed in detail by an executive CIP review committee. Projects were totaled by dollar amount and compared to the long term funding strategy and final selection was made by SAWS' Executive Management Team and approved by SAWS' Board of Trustees. The 2016 CIP represents SAWS' best estimate of the projects and associated costs that will be executed during the year; however, changes to the plan may occur if projects are reprioritized as a result of new circumstances and events.

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 construction or expansion of new facilities or infrastructure, extensive renovation of existing facilities, or the acquisition of new technology which will enhance service delivery could be considered significant non-routine capital expenditures. The 2016 CIP includes the Vista Ridge Integration Project, which could be considered significant and non-routine, and accounts for $ 28.5 million or 12% of the 2016 CIP budget.

The Vista Ridge Integration Project – This project represents the design and construction of infrastructure necessary to integrate water to be delivered to San Antonio from the Vista Ridge Water Supply Project into the SAWS water distribution system. The 2016 CIP includes $28.5 million to provide funding for easement acquisitions and early construction packages for the pipeline route, and design funds for condition assessment of the existing pipe, preliminary treatment evaluation, development of a design criteria package to hire the Design-Build firm and design and phasing of the project components. The total projected cost to completely integrate the Vista Ridge water by 2019/2020 is expected to be approximately $147 million. The Vista Ridge project is expected to provide 50,000 acre feet of water annually, making it SAWS' largest non-Edwards Aquifer water supply once online and increasing SAWS' total water supply portfolio by 20%.

2016 Capital Improvement Program Summary by Core Business

CIP Category / Project Title	*Cost Element*	*Programmed Amount*
Water Delivery Core Business		
Corporate		
CIP Program Management Software - WD Share	Acquisition	$ 545,868
General Legal Services	Acquisition	64,898
IVR and Post-call Surveys	Acquisition	138,893
Service Center Facility Plan Project - Water Share	Construction	14,266,331
Category Total		**$ 15,015,990**
Governmental		
Governmental Mains	Construction	24,382,104
Category Total		**$ 24,382,104**
Mains - New		
Joint Base San Antonio Water Mains	Construction	1,213,040
Water Main Oversizing	Construction	3,032,600
Category Total		**$ 4,245,640**
Main Replacement - Water		
Construction Management Services	Construction	181,956
Non-revenue Water Leak Repairs	Construction	1,124,328
Open Cut Water Contract	Construction	1,213,040
Valves, Services and Meters	Construction	4,366,944
Water Main Replacement Geotechnical Services Contract	Design	242,608
Water Main Replacement Work Order Engineering Contract	Design	606,520
Category Total		**$ 7,735,396**
Production		
Broadband Backhaul Network Improvements	Construction	1,819,560
Dietrich Storage Tank	Acquisition	295,679
Production Control System Upgrade	Design	1,819,560
Production Facilities Construction Work Order Contract	Construction	606,520
Production Facilities Engineering Work Order Contract	Design	606,520
Pump Station Rehabilitation Phase 7 – 34th Street Pump Station Improvements	Construction	13,465,532
Turtle Creek No. 3 Electrical Upgrade	Construction	606,520
Water Production Facilities Disinfection System Upgrades Phase 2	Design	1,455,648
Category Total		**$ 20,675,539**
Core Business Total		**$ 72,054,669**

2016 CAPITAL IMPROVEMENT PROGRAM SUMMARY BY CORE BUSINESS *(CONTINUED)*

CIP Category / Project Title	*Cost Element*	*Programmed Amount*
Wastewater Core Business		
Corporate		
CIP Program Management Software - WW Share	Acquisition	$ 527,364
General Legal Services	Acquisition	124,809
IVR and Post-call Surveys	Acquisition	134,185
Service Center Facility Plan Project - WW Share	Construction	7,421,468
Category Total		**$ 8,207,826**
Governmental		
Governmental Mains	Construction	22,852,440
Category Total		**$ 22,852,440**
Mains - New		
Install sewer main from LS 224 to SBSP	Design	117,192
Sewer Main Oversizing	Construction	1,171,920
Category Total		**$ 1,289,112**
Main Replacement - Sewer		
C-12 Donaldson Terrace	Construction	9,961,320
C-13 Broadway Corridor: Josephine to South Alamo	Construction	3,515,760
C-5: Culebra and Castroville to Laredo and C28: Zarzamora Creek – San Gabriel to NW	Construction	9,375,360
Construction Management Services	Construction	1,582,092
Data Management for Sewer System Improvements	Acquisition	328,138
E-19 Seguin Road to Nacogdoches Road	Acquisition	5,156,448
E-20 Wurzbach Parkway: Jones Maltsberger to Nacogdoches	Design	1,945,746
Main Replacements - Sewer - SAWS Crews	Construction	3,281,376
Sewer Laterals	Construction	4,922,064
Small and Large Diameter Condition Remedial Measures	Construction	13,477,080
SSO Condition and Capacity Program	Design	9,375,360
W_31_IH-10_Boerne Stage to Old Fredericksburg	Construction	20,307,234
Wastewater Main Replacement Geotechnical Services Contract	Design	234,384
Wastewater Main Replacement Work Order Engineering Contract	Design	2,929,800
		$ 86,392,162
Collection Facilities		
Helotes Creek Gravity Main and Lift Station # 246 Elimination	Design	703,152
Lift Station Elimination Phase 2	Construction	1,992,264
Lift Station Elimination Phase 3	Construction	1,033,633
Lift Station Rehabilitation Phase 5	Design	$ 1,347,708
Odor Control Improvements Phase 3	Design	$ 58,596
Stone Creek Lift Station(#135) Elimination	Construction	987,929
Category Total		**$ 6,123,282**
Treatment		
Dos Rios WRC Electrical System Improvements - Phase 2	Design	$ 2,929,800
Dos Rios WRC Primary Clarifier Rehabilitation Project	Design	$ 585,960
Treatment Facilities Engineering Work Order Contract	Design	$ 585,960
Treatment Facilities Construction Work Order Contract	Construction	$ 585,960
Category Total		**$ 4,687,680**
Core Business Total		**$ 129,552,502**

2016 CAPITAL IMPROVEMENT PROGRAM SUMMARY BY CORE BUSINESS *(CONTINUED)*

CIP Category / Project Title	*Cost Element*	*Programmed Amount*
Chilled Water Core Business		
Adjust Alamo and Cesar Chavez Chilled Water Lines	Construction	1,243,880
Cherry Street VFDs - Chillers (4,160V) and Chilled Water Pumps; C	Design	$ 169,620
Chilled Water Plant Improvements	Construction	1,130,800
Chilled Water System Communication and Controls Replacement	Construction	1,363,971
PortSA Plant 325 and 356 Loop Interconnect	Construction	995,104
Core Business Total		**$ 4,903,375**
Water Supply Core Business		
General Legal Services	Acquisition	521,813
Regional Carrizo Emergency Interconnect	Design	111,024
Vista Ridge Integration	Design	28,507,675
Core Business Total		**$ 29,140,512**
Total SAWS		**$ 235,651,058**

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CIP PROJECT DATA

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WATER DELIVERY

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2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: CIP Program Management Software - WD

Programmed Amount: $545,868

Core Business: Water Delivery

Category: Corporate WD

Phase: Acquisition

Council District System wide

Description and Scope:

In 2015, SAWS implemented the Contracts and Project Management System (CPMS). The system manages the full lifecycle of CIP contracts (e.g, solicitation, ranking and selection, contract execution, invoicing, change orders/amendments) and project management (Master Planning, Project Ranking, Budget Management, submittals, inspections).

Phase 2 will expand the CPMS to manage projects and contracts with operations and maintenance (O&M) funding, and mixed funding (O&M/Capital or multiple core business), enhance support for mobility, enable functionality for historical easements, and interfacing with the City of San Antonio Primelink System.

Justification:

This project will increase the efficiency and quality of program management, and increase the accuracy of project and program tracking and decision making.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Corporate Mandate	Failure of Corporate Initiative	System Improvement

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2016	0	0
	$450,000	$0	$0

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: General Legal Expenses - WD

Programmed Amount: $64,898

Core Business: Water Delivery

Category: Corporate WD

Phase: Acquisition

Council District System Wide

Description and Scope:

SAWS must pay legal expenses for critical SAWS projects including the new Service Centers, right-of-way acquisition, and other necessary projects that require specialized external legal support. Success in implementing these projects is critical to SAWS mission. The actual expenditures are applied to the specific CIP project.

Justification:

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

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Corporate Mandate	Regulatory Non-compliance	Conflict with City or State

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2016		
	$53,500		

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Customer Service: Interactive Voice Response (IVR) and Post Call Surveys

Programmed Amount: $138,893

Core Business: Water Delivery

Category: Corporate WD

Phase: Acquisition

Council District System Wide

Description and Scope:

This investment is part of the Customer Service strategy to move calls from the call center to a contact center for enhanced customer interactions. It increases a previously approved investment for an interactive voice response solution and post call survey automation; as the solutions were priced in detail, the amounts increased.

Justification:

The impact of this investment is enhanced Customer interactions.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Impact Severity	**Likelihood of Occurrence**	**Risk Mitigation**	**Risk Exposure**

FUNDING INFORMATION	**Land Year:**	**Design Year:**	**Construction Year**
Amounts shown are estimated costs without SAWS overhead.	2016	0	0
	$114,500	$0	$0

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Service Center Facility Project Plan - WD Share

Programmed Amount: $14,266,331

Core Business: Water Delivery

Category: Corporate WD

Phase: Construction

Council District System Wide

Description and Scope:

Phase 2 of service center improvement initiative consists of improvements to SAWS' existing Eastside and Northwest service centers to allow SAWS to merge Operations crews from the Mission Road service center into these existing locations. In 2013 SAWS conducted a geostatistical analysis to find the most efficient sites in the county to locate operations crews to reduce drive time. Consolidating staff from the Mission Road location into these two existing sites will increase the efficiency of employees and improve response time to ratepayers.

The 2016 improvements at both sites include upgrades to meet current building codes and removal of underground tanks at an existing production site, which will reduce risk. The total Phase 2 construction cost is projected at $21.8 million, shared between Water Delivery at 66% and Wastewater at 34%.

Justification:

Relocating operations crews to the new Northwest and Westside service centers will increase the efficiency of manpower and equipment and relieve overcrowding at existing service centers. Upon completion of this relocation, SAWS can vacate and surplus the SAWS Mission Road location, avoiding further drive times and ongoing O&M at that facility.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Impact Severity	**Likelihood of Occurrence**	**Risk Mitigation**	**Risk Exposure**

FUNDING INFORMATION	**Land Year:**	**Design Year:**	**Construction Year**
Amounts shown are estimated costs without SAWS overhead.	2012	2012	2016
	$1,985,000	$3,600,000	$11,760,808

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Governmental Water Projects

Programmed Amount: $24,382,104

Core Business: 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 City of San Antonio, Bexar County, CPS Energy, Texas Department of Transportation, ATT, 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 both the cost of construction and the potential of utility failure under a new street.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Service Interruption	Excessive Downtime	Conflict with City or State

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	10	810

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$20,100,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Joint Base San Antonio Water Mains

Programmed Amount: $1,213,040

Core Business: Water Delivery

Category: Mains - New

Phase: Construction

Council District System Wide

Description and Scope:

This project will connect four of the military bases in Joint Base San Antonio with SAWS water system in order to provide primary or redundant water supply to the bases. The bases are Camp Bullis in 2016, and Ft. Sam Houston, Lackland AFB and Lackland Training Annex in 2017. The 2016 funding is $1.2 million and $2.5 million in 2017.

Justification:

This project will provide water security for the bases so they can perform their mission during time of drought or base infrastructure reliability issues. The bases have some aging, and unreliable water infrastructure and are subject to cutbacks from their Edwards Aquifer pumping, creating an atmosphere of uncertain water resources. There is also a lack of redundancy in the bases' water systems.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Capacity	Failure of Corporate Initiative	Critical Equipment Failure

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
5	8	10	400

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$1,000,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Water Main Oversizing 2016 - SAWS

Programmed Amount: $3,032,600

Core Business: Water Delivery

Phase: Construction

Council District System Wide

Description and Scope:

Pay for 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.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Capacity	Low Flow/Pressure	Undersized Lines

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
5	8	10	400

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$2,500,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Construction Management Services - Water Delivery

Programmed Amount: $181,956

Core Business: Water Delivery

Category: Main Replacement - Water

Phase: Construction

Council District System Wide

Description and Scope:

SAWS requires construction management services to inspect and manage numerous ongoing construction projects to ensure that each project meets SAWS rigorous standards and specifications for health, safety, environmental and regulatory compliance. SAWS also requires inspection of projects to ensure the reliability of the project, testing to be performed in accordance with State requirements and regulations, and to ensure proper water quality requirements for all of our ratepayers for a clean reliable water source. This program will provide the additional contractual services to meet the inspection demands.

Justification:

These services will ensure that each project is constructed to standard and does not risk public health, safety, or environmental violations.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Process	Public Health Impact	Conflict with City or State

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$150,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Non-revenue Water Leak Repairs

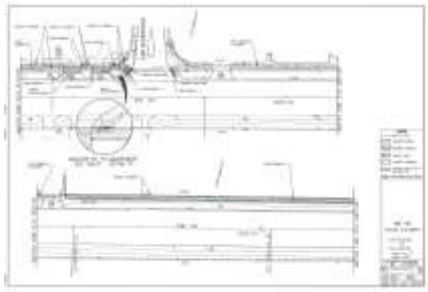
Programmed Amount: $1,124,328

Core Business: Water Delivery

Category: Main Replacement - Water

Phase: Construction

Council District System Wide



Description and Scope:

The Distribution & Collection Group is currently leak detecting half of SAWS' distribution system. With combined efforts from internal and external leak detection crews, 3,200 system miles will be evaluated for leaks. Based on results from leak detection efforts in the past, D&C estimates that approximately 2,650 leaks will be found in the system.

Justification:

Of the estimated 2,650 work orders generated by the combined effort, which represents a 15% increase in workload. This project funds the workforce and equipment needed to meet the additional workload.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Service Interruption	Customer Dissatisfaction	Other/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$926,868

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Open Cut Water Contract

Programmed Amount: $1,213,040

Core Business: Water Delivery

Category: Main Replacement - Water

Phase: Construction

Council District System Wide

Description and Scope:

This annual contract provides funding for external contractors to replace water mains that cannot be repaired quickly and economically by SAWS crews.

Justification:

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

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Line Collapse	Low Flow/Pressure	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$1,000,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Valves, Services and Meter Replacements - SAWS

Programmed Amount: $4,366,944

Core Business: 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 SAWS crews.. 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 efficient than repair.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Service Interruption	Critical Equipment Failure

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
8	10	8	640

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$3,600,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: 2016 Geotechnical Engineering and Construction Materials Testing Service

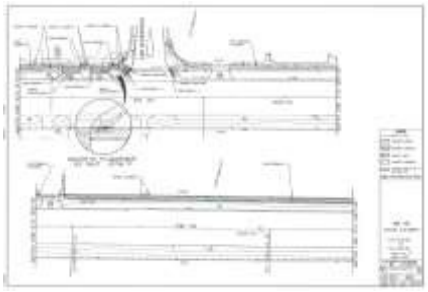
Programmed Amount: $242,608

Core Business: Water Delivery

Category: Main Replacement - Water

Phase: Design

Council District System Wide



Description and Scope:

San Antonio Water System (SAWS) is pursuing professional engineering services related to geotechnical and construction materials testing and reporting for quality control and assurance of its construction related activities.

Justification:

Geotechnical and construction materials testing services are essential to the proper design of replacement and repair of water mains.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Service Interruption	Customer Dissatisfaction	Other/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	
		$200,000	

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Water Main Replacement Work Order Engineering Contract

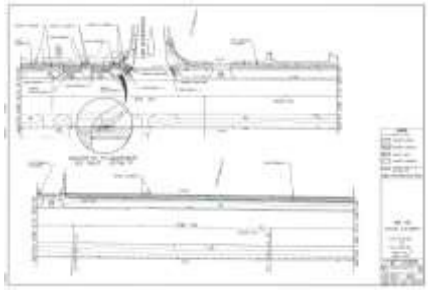
Programmed Amount: $606,520

Core Business: Water Delivery

Category: Main Replacement - Water

Phase: Design

Council District System Wide



Description and Scope:

This annual project will fund design services to repair/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 replaced or repaired is necessary to restore and maintain water service.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Service Interruption	Customer Dissatisfaction	Other/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	
		$500,000	

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Broadband Backhaul Network Improvements

Programmed Amount: $1,819,560

Core Business: Water Delivery

Category: Production

Phase: Design

Council District System Wide

Description and Scope:

The broadband network improvements project will increase reliability and performance by upgrading backhaul communications, provide expanded coverage by constructing new communications repeater sites, and increase cyber security defenses.

Justification:

Replacing and upgrading the control and communication network systems is necessary for continued service and for increased efficiency. Improved technology is needed to be able to manage the expanding system without adding additional staff.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Increased Maintenance	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$1,500,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Dietrich Storage Tank

Programmed Amount: $295,679

Core Business: Water Delivery

Category: Production

Phase: Acquisition

Council District 5

Description and Scope:

SAWS needs to acquire land in northeastern San Antonio for a future storage tank that is required to provide 2.5 million gallons of elevated storage for Pressure Zone (PZ) 3 to meet TCEQ capacity requirements for future growth.

Justification:

SAWS must meet TCEQ requirements for elevated storage in areas where growth is projected to occur.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Regulatory Compliance	Low Flow/Pressure	Lack of Redundancy

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	10	10	900

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2016	2018	2020
	$243,750	$487,500	$4,875,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Production Control System Upgrade

Programmed Amount: $1,819,560

Core Business: Water Delivery

Category: Production

Phase: Design

Council District 0

Description and Scope:

This project will ensure that SAWS conforms to stringent state and federal regulatory requirements that affect our 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 infrastructure security threats. These upgrades will position the water facilities to move toward future standardization of instrumentation and control systems for Production. The scope of work will 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:

Replacing and upgrading the control and communication systems for the production system is necessary for continued service and for increased security. Improving technology is needed to be able to manage the expanding system without adding additional staff.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Increased Maintenance	Obsolescence

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	9	729

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	2017
		$1,500,000	$8,000,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Production Facilities Work Order Construction Contract

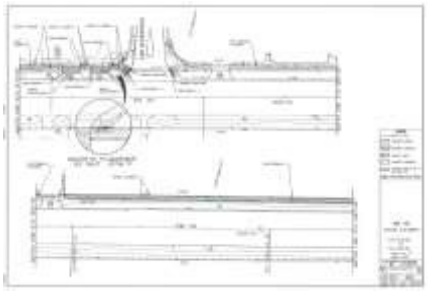
Programmed Amount: $606,520

Core Business: Water Delivery

Category: Production

Phase: Construction

Council District System Wide



Description and Scope:

Work order contracts for construction of small but urgent projects that are not executable by SAWS engineering and operations staff.

Justification:

These contracts allow flexibility to execute emergency projects without pulling funds from budgeted projects, and avoid delays associated with conventional bid processes

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Service Interruption	Customer Dissatisfaction	Other/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$500,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Production Facilities Work Order Engineering Contract

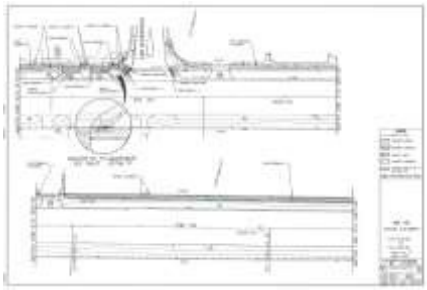
Programmed Amount: $606,520

Core Business: Water Delivery

Category: Production

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.

Justification:

These contracts allow flexibility to execute projects without pulling funds from budgeted projects, and avoid delays associated with conventional bid processes

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Service Interruption	Customer Dissatisfaction	Other/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	
		$500,000	

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Water Production Facility Upgrades Program – 34th Street Pump Station Improvements

Programmed Amount: $13,465,532

Core Business: Water Delivery

Category: Production

Phase: Construction

Council District 5

Description and Scope:

This project, Phase 7 of a multi-phase pump station rehabilitation program, will rehabilitate this pump station located in a residential area. The 34th St. pump station has a firm capacity of 21 million gallons per day and is located near West Commerce and General McMullen, serving Pressure Zones 3 and 4. The project includes replacing the existing chlorine disinfection system with a new sodium hypochlorite on-site generation system; replacement of two existing high service pump motors with induction type motors including associated electrical gear, new energy efficient exterior lighting, replacement of selected sections of yard piping and defective and/or failed valves, modifications of existing well heads to satisfy TCEQ requirements, and mill and overlay of the existing pavement in poor condition. This will bring the facility into compliance with current Fire Codes, as well as federal, state and industry standards and requirements.

Justification:

Improvements are necessary to update aging and obsolete equipment and improve pump station safety and reliability.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Low Flow/Pressure	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2013	2016
		$600,000	$11,100,650

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Turtle Creek No. 3 Electrical Upgrade

Programmed Amount: $606,520

Core Business: Water Delivery

Category: Production

Phase: Construction

Council District 8

Description and Scope:

This project will upgrade electrical infrastructure at the Turtle Creek No. 3 pump station in advance of the well field, well pumps, and ground storage tank construction project, to avoid construction conflicts and reduced capacity during peak demand times.

Justification:

This station provides service to the Medical Center area. This critical area is currently served by three wells. 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.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Excessive Downtime	Lack of Redundancy

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
8	9	9	648

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2015	2016
	$0	$0	$500,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Water Production Facilities Disinfection System Upgrades Phase 2

Programmed Amount: $1,455,648

Core Business: Water Delivery

Category: Production

Phase: Design

Council District System wide

Description and Scope:

Replace chlorine gas containers 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 1 are the Artesia, Randolph, and Seale pump stations. They will be upgraded in that order over three years beginning in 2018.

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:

Improvements are necessary to update aging and obsolete equipment and improve pump station safety and reliability.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Regulatory Compliance	Jeopardize Life/Safety	System Improvement

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	7	10	700

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2016	2018
	$0	$1,200,000	$3,750,000

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WASTEWATER

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2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: CIP Program Management Software - WW

Programmed Amount: $527,364

Core Business: Wastewater

Category: Corporate WW

Phase: Acquisition

Council District System wide

Description and Scope:

In 2015, SAWS implemented the Contracts and Project Management System (CPMS). The system manages the full lifecycle of CIP contracts (e.g, solicitation, ranking and selection, contract execution, invoicing, change orders/amendments) and project management (Master Planning, Project Ranking, Budget Management, submittals, inspections).

Phase 2 will expand the CPMS to manage projects and contracts with operations and maintenance (O&M) funding, and mixed funding (O&M/Capital or multiple core business), enhance support for mobility, enable functionality for historical easements, and interfacing with the City of San Antonio Primelink System.

Justification:

This project will increase the efficiency and quality of program management, and increase the accuracy of project and program tracking and decision making.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Corporate Mandate	Failure of Corporate Initiative	System Improvement

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2016	0	0
	$450,000	$0	$0

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: General Legal Expenses - WW

Programmed Amount: $124,809

Core Business: Wastewater

Category: Corporate WW

Phase: Acquisition

Council District System Wide

Description and Scope:

SAWS must pay legal expenses for critical SAWS projects including the new Service Centers, projects included in the U.S. Environmental Protection Agency (EPA) Consent Decree, and other necessary projects that require specialized external legal support. Success in implementing these projects is critical to SAWS mission. The actual expenditures are applied to the specific CIP project.

Justification:

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

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Corporate Mandate	Regulatory Non-compliance	Conflict with City or State

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2016		
	$106,500		

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Customer Service: Interactive Voice Response and Post Call Surveys

Programmed Amount: $134,185

Core Business: Wastewater

Category: Corporate WW

Phase: Acquisition

Council District 0

Description and Scope:

This investment is part of the Customer Service strategy to move calls from the call center to a contact center for enhanced customer interactions. It increases a previously approved investment for an interactive voice response solution and post call survey automation; as the solutions were priced in detail, the amounts increased.

Justification:

The impact of this investment is enhanced customer interactions.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Impact Severity	**Likelihood of Occurrence**	**Risk Mitigation**	**Risk Exposure**

FUNDING INFORMATION	**Land Year:**	**Design Year:**	**Construction Year**
Amounts shown are estimated costs without SAWS overhead.	2016	0	0
	$114,500	$0	$0

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Service Center Facility Project Plan - WW Share

Programmed Amount: $7,421,468

Core Business: Wastewater

Category: Corporate WW

Phase: Construction

Council District System Wide

Description and Scope:

Phase 2 of service center improvement initiative consists of improvements to SAWS' existing Eastside and Northwest service centers to allow SAWS to merge Operations crews from the Mission Road service center into these existing locations. In 2013 SAWS conducted a geostatistical analysis to find the most efficient sites in the county to locate operations crews to reduce drive time. Consolidating staff from the Mission Road location into these two existing sites will increase the efficiency of employees and improve response time to ratepayers.

The 2016 improvements at both sites include upgrades to meet current building codes and removal of underground tanks at an existing production site, which will reduce risk. The total Phase 2 construction cost is projected at $21.8 million, shared between Water Delivery at 66% and Wastewater at 34%.

Justification:

Relocating operations crews to the new Northwest and Westside service centers will increase the efficiency of manpower and equipment and relieve overcrowding at existing service centers. Upon completion of this relocation, SAWS can vacate and surplus the SAWS Mission Road location, avoiding further drive times and ongoing O&M at that facility.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Impact Severity	**Likelihood of Occurrence**	**Risk Mitigation**	**Risk Exposure**

FUNDING INFORMATION	**Land Year:**	**Design Year:**	**Construction Year**
Amounts shown are estimated costs without SAWS overhead.	2014		2016
			$6,332,743

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Governmental Sewer Projects

Programmed Amount: $22,852,440

Core Business: 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 sewer mains in poor condition, adjustment of sewer mains whose existing alignment conflicts with proposed new street alignment, and installation of new sewer mains needed to provide additional capacity.

SAWS participates in the Utility Coordination Council, and jointly plans and reviews infrastructure improvements with City of San Antonio, Bexar County, CPS Energy, Texas Department of Transportation, ATT, 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.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Service Interruption	Excessive Downtime	Conflict with City or State

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	10	810

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$19,500,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Install Sewer Main from Lift Station (LS) 224 to Southwest Bexar Sewer Pipeline

Programmed Amount: $117,192

Core Business: Wastewater

Category: Mains - New

Phase: Design

Council District 4

Description and Scope:

This Project will construct approximately 1.5 miles of 8-inch gravity sewer main from LS#224 (Love's Country) to the Southwest Bexar Sewer Pipeline.

Justification:

Project is needed to eliminate lift station and reduce O&M costs. The project is on the EPA Consent Decree and must be completed by 12/31/2019.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Increased Maintenance	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
6	5	7	210

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2016	2018
	$0	$100,000	$1,000,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Sewer Main Oversizing 2016

Programmed Amount: $1,171,920

Core Business: Wastewater

Category: Mains - New

Phase: Construction

Council District System Wide

Description and Scope:

Pay for 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.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Capacity	Line Surcharge	Undersized Lines

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
5	8	10	400

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$1,000,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: C-12 Donaldson Terrace

Programmed Amount: $9,961,320

Core Business: Wastewater

Category: Main Replacement - Sewer

Phase: Construction

Council District 7

Description and Scope:

This project will increase the capacity of over four miles of sewer mains between Bandera Road and Babcock Road inside Loop 410 in the Donaldson Terrace neighborhood. The mains will be increased from 18- and 24-inches to 30-inches, and sized to accommodate up to nine million gallons per day.

Justification:

As an early action phase 1 project required by the Consent Decree, the project must be completed by July 2019. This area has had a history of overflows and has already had significant sewer improvements. These final improvements are the last steps to eliminate sewer overflows in this area.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Capacity	SSO	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2013	2016
	$0	$1,678,320	$8,500,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: C-13 Broadway Corridor Phase 3: North Alamo from Elm St. to Jones

Programmed Amount: $3,515,760

Core Business: Wastewater

Category: Main Replacement - Sewer

Phase: Construction

Council District 1

Description and Scope:

Replace 3,000 ft. of 36-inch sewer main in downtown San Antonio. Televising and visual inspection of this large diameter outfall indicated that it is in poor condition. The EPA consent decree requires that mains in poor condition be rehabilitated. Flow measurements and modeling indicate that portions of this main lack adequate capacity. The mains, which extend along the Broadway Corridor from Josephine Street to South St. Mary's Street, carry 16 million gallons of sewage daily with a wet weather peak flow of 55 million gallons, serving the Central Sewershed.

The project will be constructed in four phases. Phase 1, awarded in 2013, involved rehabilitation of the North Alamo Line. Phase 2 (2014) involved the rehabilitation of the Broadway Line. Phase 3 (2016) will install approximately 3,000 linear feet of parallel 36-inch gravity sewer main along North Alamo from Elm St. to Jones to provide additional capacity. Phase 4 (2017) will install approximately 2,550 linear feet of parallel 36-inch gravity sewer main along North Alamo from Jones to Josephine and complete the project. The total estimated cost of phase 3 is $3.0 million. The total estimated cost of the project, including design, is $25.8 million.

Justification:

Replacement of this undersized and deteriorated sewer main is critical to maintain service and is required by the EPA Consent Decree. All phases of the project must be complete by July 23, 2019.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Capacity	SSO	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2011	2016
		$2,600,000	$3,000,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: C-5: Culebra and Castroville to Laredo and C28: Zarzamora Creek – San Gabriel to NW 23rd Street

Programmed Amount: $9,375,360

Core Business: Wastewater

Category: Main Replacement - Sewer

Phase: Construction

Council District 3

Description and Scope:

This project consists of the replacement of approximately two miles of 36" pipe along the east side of Apache Creek from Zarzamora to Houston. This pipe is being replaced due to its poor condition and includes the relocation of a siphon structure.

Two additional phases will be replaced in 2017 and 2018, at estimated costs of $3.5 million and $6 million, respectively.

The projects are required to improve the wastewater flow through the south-central part of the city, upgrade the capacity to accommodate increased flow volumes, and eliminate or rehabilitate structures that are causing system degradation.

The San Antonio River Authority and City of San Antonio Parks and Recreation are involved in this project.

Justification:

This project falls under EPA Consent Decree - Early Action Program Phase 2.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Capacity	SSO	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2011	2011	2016
	$250,000	$833,000	$8,000,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Construction Management Services - Wastewater

Programmed Amount: $1,582,092

Core Business: Wastewater

Category: Main Replacement - Sewer

Phase: Construction

Council District System Wide

Description and Scope:

SAWS requires construction management services to inspect and manage numerous ongoing construction projects to ensure that each project meets SAWS rigorous standards and specifications for health, safety, environmental and regulatory compliance. SAWS also requires inspection of projects to ensure the reliability of the project and testing to be performed in accordance with State requirements and regulations. This program will provide the additional contractual services to meet the inspection demands.

Justification:

These services will ensure that each project is constructed to standard and does not risk public health, safety, or environmental violations.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Process	Public Health Impact	Conflict with City or State

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$1,350,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Data Management for Sewer System Improvements (SSI)

Programmed Amount: $328,138

Core Business: Wastewater

Category: Main Replacement - Sewer

Phase: Acquisition

Council District System Wide

Description and Scope:

Development of Data Management/Data Warehouse for the Sanitary Sewer Overflow (SSO) Reduction Program. This effort will aggregate SSO data from systems implemented in 2015 (i.e. CPMS, Hansen Incident Management, Innovyze InfoMaster) into a single repository capturing all elements in the life of SSO and SSI activities. In addition to data aggregation, this effort will develop a series of tools for comprehensive analysis, reporting, and dashboards; enabling more effective strategic and operational decision-making, along with adhering to EPA Consent Decree reporting requirements.

Justification:

Without centralized data management the risk of noncompliance is increased significantly. It is especially important when producing reports and during audits by the regulators, because the data may not be repeatable if it is not held in one central location and managed holistically.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Corporate Mandate	Enforcement Action	System Improvement

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2016		
	$280,000		

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: E-19: Seguin Road to Nacogdoches Road

Programmed Amount: $5,156,448

Core Business: Wastewater

Category: Main Replacement - Sewer

Phase: Acquisition

Council District 2, 10

Description and Scope:

This project consists of acquiring easements for the replacement of 5.6 miles of 24-inch to 78-inch gravity wastewater mains. The sewer mains are in the Eastern sewershed and run north from Binz-Engleman Road generally along Salado Creek to a point north of Loop 410 near Nacogdoches Road.

Construction is planned for 2017-18 at a total cost of $38.9 million.

Justification:

These sewer mains have experienced numerous sanitary sewer overflows and must be replaced. This project is part of the EPA Consent Decree.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Capacity	SSO	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	9	729

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2016	2015	2017
	$4,400,000	$4,000,000	$21,439,535

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: E-20 Wurzbach: Jones Maltsberger to Nacogdoches

Programmed Amount: $1,945,746

Core Business: Wastewater

Category: Main Replacement - Sewer

Phase: Design

Council District 9, 10

Description and Scope:

This project consists of approximately five miles of 15-inch to 60-inch wastewater mains that carry up to 65 million gallons per day (MGD) of wastewater. The mains are located in the Eastern Basin along Salado Creek between Nacogdoches Road and Jones Maltsberger Road and collect wastewater from Stone Oak and the northeastern service area around Redland and Bulverde Roads. Two lift stations (# 11 and #111) will be eliminated after this project is complete.

This project will be constructed in 2019-2020 at an estimated cost of $19.5 million.

Justification:

This project includes the Morgan's Circle area and is a critical project.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Capacity	SSO	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	2019/2020
		$1,660,306	$19,500,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Main Replacements - Sewer - SAWS Crews

Programmed Amount: $3,281,376

Core Business: 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.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Repeated Line Breaks	SSO	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$2,800,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Sewer Laterals 2016

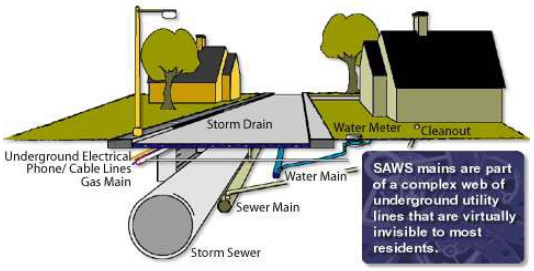
Programmed Amount: $4,922,064

Core Business: 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 sewer laterals, which had previously been the responsibility of property owners.

Justification:

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

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Line Collapse	SSO	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
8	10	10	800

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$4,200,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Small and Large Diameter Rehab Program

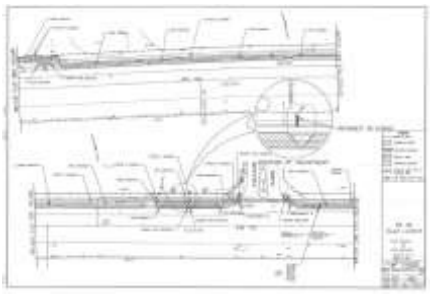
Programmed Amount: $13,477,080

Core Business: 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 12 miles of small and 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 Early Action Program. The program requires SAWS to rehabilitate 75 miles of sewer main in poor condtion as part of the Early Action Phase 1 Program 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:

Design of replacement/repair mains is necessary to restore and maintain wastewater service.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Capacity	Enforcement Action	System Improvement

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$11,500,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Sanitary Sewer Overflow (SSO) Condition and Capacity Program

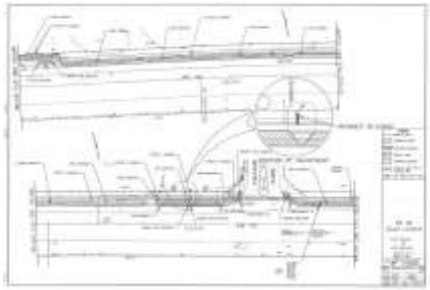
Programmed Amount: $9,375,360

Core Business: Wastewater

Category: Main Replacement - Sewer

Phase: Design

Council District System Wide



Description and Scope:

Perform alternative analysis for sewer infrastructure that has been identified to require remedial measures due to a capacity constraint and/or structural condition in each sewershed. The alternative analysis will develop the design requirements (i.e., remedial measure) to resolve the capacity constraint and structural conditions at the lowest possible cost and provide a capital improvement plan for each sewer shed to be executed in compliance with the EPA Consent Decree.

Justification:

Design of replacement/repair mains is necessary to restore and maintain wastewater service.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Capacity	Enforcement Action	System Improvement

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	
		$8,000,000	

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: W-31 IH-10: Boerne Stage to Old Fredericksburg

Programmed Amount: $20,307,234

Core Business: Wastewater

Category: Main Replacement - Sewer

Phase: Construction

Council District 8

Description and Scope:

Construct a 5 mile gravity sewer outfall along IH-10 from Boerne Stage Road to Old Fredericksburg Road to provide sewer service to customers along the IH-10 corridor.

Limited wastewater service is provided to this area through lift stations and force mains. The existing system has experienced multiple sewer overflows and appears to be undersized. The Falcon Center Lift Station will be eliminated with this project. The lift station force main system will be replaced with a larger capacity gravity system to accommodate projected growth in the area.

Design and land acquisition occurred in 2014 and 2015. The total cost of the project is expected to be $28.9 million.

Justification:

Construction will replace undersized lift stations and force mains and provide additional capacity for growth along the IH-10 corridor. Impact fees will pay for the additional capacity included in this project.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Capacity	SSO	Undersized Equipment

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	9	7	630

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2014	2014	2016
	$3,000,000	$1,600,000	$17,328,174

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: 2016 Geotechnical Engineering and Construction Materials Testing Service

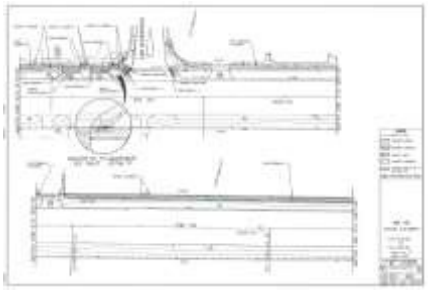
Programmed Amount: $234,384

Core Business: Wastewater

Category: Main Replacement - Sewer

Phase: Design

Council District System Wide



Description and Scope:

San Antonio Water System (SAWS) is pursuing professional engineering services related to geotechnical and construction materials testing and reporting for quality control and assurance of its construction related activities.

Justification:

Geotechnical and construction materials testing services are essential to the proper design of replacement and repair of sewer mains.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Service Interruption	Customer Dissatisfaction	Other/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	
		$200,000	

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Wastewater Main Replacement Work Order Engineering Contract

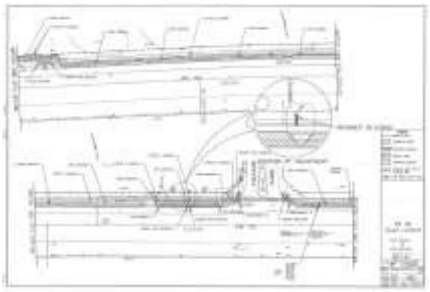
Programmed Amount: $2,929,800

Core Business: 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. These projects will be constructed on an 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.

Justification:

Design of replacement/repair mains is necessary to restore and maintain wastewater service.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Facilities	Customer Dissatisfaction	Other/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	
		$2,000,000	

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Helotes Creek Gravity Main and Lift Station #246 Elimination

Programmed Amount: $703,152

Core Business: Wastewater

Category: Collection Facilities

Phase: Design

Council District OCL

Description and Scope:

This lift station elimination project resulted from an analysis that considered available capacity, current and future flow conditions, life cycle cost and required upgrades of existing lift stations. The alternatives included eliminating, rehabilitating, and bypassing the San Antonio Ranch lift station (LS #246) and the Iron Horse lift station (LS #233). The most cost effective alternative which allows for future growth is to eliminate the San Antonio Ranch lift station and construct a gravity outfall that bypasses the Iron Horse lift station.
Elimination of LS #246 will reduce operational and maintenance costs associated with upkeep of the facility. This project is important because it will eliminate the potential for sanitary sewer overflows due to lift station failures. This project will remove the necessity to upsize the Iron Horse lift station and associated force mains. This project will extend generally along Helotes Creek near Bandera Road (State Hwy 16) from the existing San Antonio Ranch lift station near Jericho Road to Circle A Trail. San Antonio Ranch lift station and Iron Horse lift station both have limited capacity which has been fully committed, but not yet utilized. Additional developers have requested capacity within these lift stations which would require significant improvements to upgrade.

Justification:

SAWS has taken a regional approach to avoid multiple small upgrades to the lift stations and instead has applied a special impact fee by agreement for the Bandera Road area. Each developer will pay $2,100 per Equivalent Dwelling Unit to fund this project and SAWS will take on the risk of finalizing the project prior to the need for upgrades for the lift stations. Funds collected from developers will be used to offset the cost of this project to the rate payers.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Increased Maintenance	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	5	5	225

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2017	2016	2018
	$300,000	$600,000	$6,000,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Lift Station Elimination Phase 2

Programmed Amount: $1,992,264

Core Business: Wastewater

Category: Collection Facilities

Phase: Construction

Council District 3, 6, 7, 10

Description and Scope:

This master planned lift station elimination project resulted from an analysis that considered available capacity, current flow condition, life cycle cost and age of the lift stations. The alternatives included eliminating or rehabilitating the lift stations. The most cost effective alternative is to eliminate five lift stations in this phase. The five lift stations to be eliminated are: Commercial & Villaret (#73) near SW Loop 410, Timberwilde (#94) near Tezel Road and Northchase, Hillpoint (#103) near Wurzbach Parkway and Wetmore Road, Guilbeau (#145) near Guilbeau Road and Old Tezel Road, and Monticello Manor (#217) near Callaghan and Culebra Roads.

Justification:

Lift Station Elimination Phase 2 addresses elimination of five lift stations by directing the flow to gravity flow mains. This will reduce operational and maintenance costs. This project is important because it will eliminate the potential for sanitary sewer overflows due to lift station failures. This project is in the EPA Consent Decree and must be completed by 12/31/2017.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Increased Maintenance	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
8	7	8	448

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2010	2009	2016
	$150,000	$84,000	$1,700,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Lift Station Elimination Phase 3

Programmed Amount: $1,033,633

Core Business: Wastewater

Category: Collection Facilities

Phase: Construction

Council District 6

Description and Scope:

This master planned lift station elimination project resulted from an analysis that considered available capacity, current flow condition, life cycle cost and age of the lift stations. The alternatives included eliminating or rehabilitating the lift stations. The most cost effective alternative is to eliminate two lift stations in this phase. This project will eliminate the Copperfield (#182) and Quail Creek (#197) lift stations. The Copperfield lift station is near FM 1604 and Wiseman Blvd, and the Quail Creek lift station is near Tezel Road and Northchase.

Justification:

Lift Station Elimination Phase 3 addresses the elimination of two lift stations by directing the flow to gravity flow mains. This will reduce operational and maintenance costs associated with upkeep of the facilities. This project is important because it will eliminate the potential for sanitary sewer overflows due to lift station failures. It is in the EPA Consent Decree and must be completed by December 2017.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Increased Maintenance	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
5	6	4	120

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2015	2010	2016
	$157,500	$157,500	$882,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Lift Station Rehabilitation - Phase 5

Programmed Amount: $1,347,708

Core Business: Wastewater

Category: Collection Facilities

Phase: Design

Council District 0

Description and Scope:

Rehabilitate seventeen existing lift stations that are located at Port San Antonio and Lackland AFB in the Central and West sewersheds. The lift station numbers are 300, 303, 304, 311, 312, 315, 316, 317, 319, 321, 322, 323, 324, 325, 328, 330, and 331. The project will include safety and security upgrades, protection of the lift station if within the 100-year flood plain, evaluation and rehabilitation of wet wells, pump replacement, addition of back-up power generator, and electrical panel upgrades. All of the lift stations will be connected to the remote Supervisory Control and Data Acquisition System (SCADA) monitoring system. Wet well storage capacity will be verified for TCEQ regulatory compliance as well as adequate response time in the event of an emergency. The pumping, wet well and force main capacity will be upsized if it is found that the current conditions are inadequate.

Justification:

The lift stations were installed 30 to 50 years ago, and the typical life expectancy is 20 years. Rehabilitating the lift stations will reduce the probability of a sanitary sewer overflow, as well as upgrade each site to conform to stringent state and federal regulatory requirements. The EPA Consent Decree requires that these lift stations be rehabilitated.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Environmental Impact	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
8	8	9	576

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	2018
		$1,150,000	$11,500,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Odor Control Improvements Phase 3

Programmed Amount: $58,596

Core Business: Wastewater

Category: Collection Facilities

Phase: Design

Council District 9

Description and Scope:

The project entails design of three new odor control injection sites to mitigate odors in the new Southwest Bexar Sewer Pipeline. Ferrous sulfate will be injected to the sewer lines from these injection sites to prevent unwanted odors due to hydrogen sulfide. This minimizes gas in the sewer lines and reduces corrosion of the pipes. Construction is planned for 2017.

Justification:

Injection of ferrous sulfate reduces hydrogen sulfide odors and pipe corrosion, resulting in an increased pipe life and reduced costs to prematurely replace pipes.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Process	Customer Dissatisfaction	System Improvement

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
6	9	8	432

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	2017
		$50,000	$475,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Stone Creek Lift Station Elimination

Programmed Amount: $987,929

Core Business: Wastewater

Category: Collection Facilities

Phase: Construction

Council District 9

Description and Scope:

This project will eliminate the Stone Creek lift station (#135), by installing about one quarter mile of 8-inch sewer gravity main to the Stone Oak lift station (#134). The Stone Creek lift station is located in the Hills of Stone Oak Subdivision near Stone Oak Parkway and Huebner Road. The project will require a deeper main and will be installed prior to any development occurring on the existing parcel.

Justification:

The EPA Consent Decree requires that this lift station be eliminated by 12/31/2017. This project will reduce the likelihood of a sanitary sewer overflow due to mechanical issues typically associated with lift stations.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Increased Maintenance	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
5	6	4	120

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2010	2016
		$84,300	$843,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Dos Rios Water Recycling Center (WRC) Electrical System Improvements - Phase 2

Programmed Amount: $2,929,800

Core Business: Wastewater

Category: Treatment

Phase: Design

Council District 3

Description and Scope:

Design the replacement of various plant electrical switchgear, motor control centers, transformers and generators that are aging, in poor condition and/or do not meet Federal, State and Local electrical codes. The proposed electrical equipment to be replaced in Phase 1 was deemed in very poor condition by the Dos Rios WRC Electrical System Assessment Project. All plant electrical equipment was assessed, evaluated and assigned a rating of 1 to 6, with 1 being in the poorest condition and 6 being in the best condition. Phase 2 will replace electrical switchgear, motor control centers, and transformers that received a rating of 3 or 4 (moderate condition) and are recommended for replacement when possible. The substations, switchgears, motor control centers and transformers associated with the plant blowers will be replaced as part of this project. The blower system is a critical component of the plant operation and has become increasingly difficult for plant personnel to operate and maintain. Phase 1 is being constructed in 2015 at an estimated cost of $12.9 million, and Phase 2 will be constructed in 2018. Phase 3 will be designed in 2019 and constructed in 2021. The total estimated cost of the project is $60 million.

Justification:

Plant electrical equipment is aging and in relatively poor condition. This is original equipment that was installed when the facility was constructed in 1987, nearly 30 years ago, and the typical life expectancy is 20 years. Failure of this equipment could interrupt the treatment process, require emergency generators, and cause a fire or other safety issue.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Increased Maintenance	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	8	8	640

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	2018
		$2,500,000	$17,000,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Dos Rios Water Recycling Center (WRC) Primary Clarifier Rehabilitation Project

Programmed Amount: $585,960

Core Business: Wastewater

Category: Treatment

Phase: Design

Council District 0

Description and Scope:

This project replaces all equipment and drive mechanisms within the eight existing 110 ft. diameter primary clarifiers at Dos Rios WRC.

Justification:

The existing primary clarifiers at the Dos Rios Water Recycling Center (WRC) have original gears and equipment that are nearly 30 years old, and long past their expected service life. All primary clarifier mechanisms exhibit signs of severe deterioration from corrosion and metal fatigue, and are in need of replacement.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Unsustainable Equipment	Excessive Downtime	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	8	9	720

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2016	2018
	$0	$500,000	$5,000,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Treatment Facilities Work Order Construction Contract

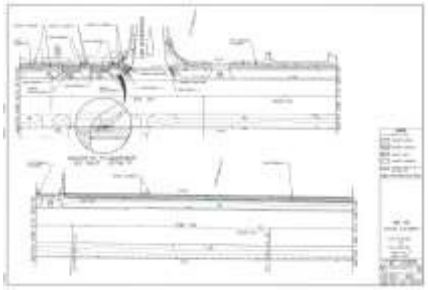
Programmed Amount: $585,960

Core Business: Wastewater

Category: Treatment

Phase: Construction

Council District System Wide



Description and Scope:

Work order contracts for construction of small but urgent projects that are not executable by SAWS engineering and operations staff.

Justification:

These contracts allow flexibility to execute projects without pulling funds from budgeted projects, and avoid delays associated with conventional bid processes

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Service Interruption	Customer Dissatisfaction	Other/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	
		$500,000	

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Treatment Facilities Work Order Engineering Contract

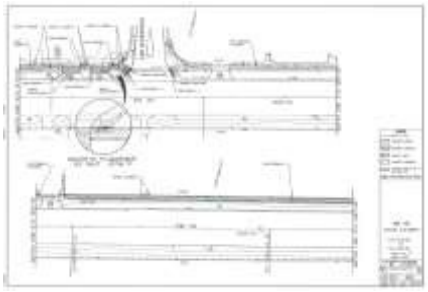
Programmed Amount: $585,960

Core Business: 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.

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FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Service Interruption	Customer Dissatisfaction	Other/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	
		$500,000	

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CHILLED WATER

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2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Adjust Alamo and Cesar Chavez Chilled Water Lines

Programmed Amount: $1,243,880

Core Business: Chilled Water

Category: Chilled Water

Phase: Construction

Council District 1

Description and Scope:

The chilled water lines in the Hemisfair Park Area underneath Alamo & Caesar Chavez streets are over 25 years old, and they must be moved and upsized to avoid conflict with the City upgrades to the Hemisfair Park area. The existing 12-inch lines will be upsized to 20-inch lines and adjusted to run underneath South Alamo between Nueva and Market. The project includes 850 feet of chilled water supply main and 850 feet of return main.

Justification:

The risk of delaying this project is interruption of service to downtown facilities and inability to participate in the City Bond program.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Service Interruption	Excessive Downtime	Conflict with City or State

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	10	10	900

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.			2016
			$1,100,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Cherry Street Variable Frequency Drives (VFD) and Pumps

Programmed Amount: $169,620

Core Business: Chilled Water

Category: Chilled Water

Phase: Design

Council District 1

Description and Scope:

This project will improve the performance of the SAWS chilled water system. The two-way valves and variable frequency drives (VFDs) will allow total chilled water flow distributed from the Commerce Street and Cherry Street facilities to more closely match customer demand. The total demand is 22,808 tons of chilled water, with the Alamodome and Convention Center accounting for 71% of the demand.

The VFDs will be used to control the speeds of the chillers and chilled water pumps to more closely match the total customer requirements and usage at all times. During times of lower customer CW demand, the VFDs will help in reducing the number of chillers and pumps that must operate. The addition of the VFDs will reduce electrical energy and electrical demand charges. The estimated electrical savings are $132,000/Year ($99,000/Year with VFDs on chillers and $33,000/Year with VFDs on CW pumps).

Justification:

The two-way valves and VFDs will permit the chillers and ancillary equipment at the Commerce Street and Cherry Street facilities to operate more efficiently.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Equipment Failure	Customer Dissatisfaction	Critical Equipment Failure

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2016	2017
		$150,000	$1,500,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Chilled Water Plant Improvements

Programmed Amount: $1,130,800

Core Business: Chilled Water

Category: Chilled Water

Phase: Construction

Council District 1

Description and Scope:

This project will construct external improvements to the Downtown Chilled Water Plant to improve its appearance relative to the newly expanded convention center. This work will include demolishing existing landscape and hardscape areas and replacing them with new landscape and plants that are aligned with SAWS conservation department drought tolerant standards. The project also includes landscape lighting, renovation of the existing fountains and reflecting pool, plumbing, new fencing along Bowie and Commerce streets, and new exterior lighting and signage.

Justification:

These improvements are required to integrate the building's appearance with the redesigned Market Street, Convention Center, and neighboring buildings.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Facilities	Customer Dissatisfaction	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2015	2016
		$0	$1,000,000

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Chilled Water System Communication and Controls Replacement

Programmed Amount: $1,363,971

Core Business: Chilled Water

Category: Chilled Water

Phase: Construction

Council District 1

Description and Scope:

This project will use the radio path survey conducted in 2014 of the entire heating and cooling system radio network to determine radio system hardware requirements, and construct a replacement to merge the two top end chiller control systems into one common system, install a replacement for the programmable logic controllers at the chillers, and install a replacement for the aging chiller Energy Management System (EMS). The radio system is critical to operation of the system, and the data is used for customer billing, monitoring, reporting and trending at the EMS server. The total estimated cost of the project is $2.4 million.

This project will be constructed in two phases in 2015 and 2016.

Justification:

The Commerce St. Chilled Water Plant serves 21 customers in the downtown area. The radio control and Energy Management System is critical to plant operations and customer billing and is used to maintain accurate and reliable cash flow for SAWS. This project will provide for a unified control system for all chillers located at Commerce St.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Equipment Failure	Customer Dissatisfaction	Critical Equipment Failure

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2014	2016
		$164,000	$1,206,200

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Port of San Antonio Plant 325 and 356 Loop Interconnect

Programmed Amount: $995,104

Core Business: Chilled Water

Category: Chilled Water

Phase: Construction

Council District 1

Description and Scope:

This project will transfer the chilled water service from plant 325 to plant 356, and enable SAWS to shut down plant 325. Plant 325 only serves one customer.

Justification:

Shutting down plant 325 will reduce electrical costs by $300,000 and water costs by $5,000 annually, in addition to reducing operating costs at plant 325 by up to $150,000 annually.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Facilities	Customer Dissatisfaction	Age/Deterioration

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2015	2016
		$0	$880,000

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WATER SUPPLY

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2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: General Legal Expenses - WR

Programmed Amount: $521,813

Core Business: Water Supply

Category: Corporate WR

Phase: Acquisition

Council District System Wide

Description and Scope:

SAWS must pay legal expenses for critical SAWS projects including the Brackish Groundwater Desalination, the Water Resources Integration Pipeline, Vista Ridge, and other necessary projects that require specialized external legal support. Success in implementing these projects is critical to SAWS mission. The actual expenditures are applied to the specific CIP project.

Justification:

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

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Corporate Mandate	Regulatory Non-compliance	Conflict with City or State

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2016		
	$470,000		

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Regional Carrizo Emergency Interconnect

Programmed Amount: $111,024

Core Business: Water Supply

Category: Water Resources

Phase: Design

Council District 0

Description and Scope:

The emergency interconnect is a result of a mitigation settlement agreement between the Gonzales County Water Supply Corporation and SAWS. Gonzales County WSC agreed to withdraw its protest to the SAWS groundwater withdrawal permit application in exchange for the items identified in the mitigation settlement agreement.

Justification:

If the project is not completed by the end of 2017, SAWS would be out of compliance with the mitigation settlement.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Corporate Mandate	Service Interruption	Conflict with City or State

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2016	2017
	$0	$100,000	$1,184,155

2016 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet

PROJECT OVERVIEW

Project: Vista Ridge Integration Project

Programmed Amount: $28,507,675

Core Business: Water Supply

Category: Water Resources

Phase: Design

Council District System Wide

Description and Scope:

This project represents the design of the infrastructure necessary to integrate water delivered to San Antonio from the Vista Ridge Water Supply Project into the SAWS water distribution system. Specifically, this project provides for funding in 2016 for legal fees, easement acquisitions and early construction packages for the pipeline route, and design funds for condition assessment of the existing pipe, preliminary treatment evaluation, development of design criteria package to hire the Design-Build firm and design and phasing of the project components.

Once the Integration project begins to receive water from the Vista Ridge Water Supply Project , it will help meet the expected growth of 20,000 new people every year in San Antonio, and will be the largest non-Edwards Aquifer water supply in San Antonio's history. This project will increase our water supply portfolio by 20% of current demand.

Justification:

The existing infrastructure needs to undergo significant improvements to make sure this new water source can be efficiently integrated along with others in our diversified supply.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Inadequate Capacity	Low Flow/Pressure	Undersized Lines

Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

	Land Year:	Design Year:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2015	2016	2017
	$500,000	$25,677,039	$100,238,154

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Supplemental Information

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SUPPLEMENTAL INFORMATION

STATISTICAL SECTION

Revenue Capacity - Water Production, Water Usage and Wastewater Treated

Fiscal Year	Gallons of Water Production (b)	Gallons of Water Usage	Gallons of Water Unbilled	Average Percent Unbilled	Gallons of Wastewater Treated (c)	Total Direct Rate: Water Base Rate (d)	Total Direct Rate: Water Usage Rate (e)	Total Direct Rate: Sewer Base Rate (f)	Total Direct Rate: Sewer Usage Rate (g)
2014	68,265	57,261	11,004	16.12%	50,689	$ 7.49	$ 21.43	$ 11.99	$ 14.81
2013	66,391	55,108	11,283	16.99%	50,076	7.31	20.09	11.54	14.27
2012	66,596	55,320	11,276	16.93%	49,055	7.31	20.24	9.92	12.24
2011	70,699	59,133	11,566	16.36%	49,918	7.10	18.10	8.73	10.78
2010 (a)	61,272	52,578	8,694	14.19%	48,152	7.10	18.10	8.73	10.78
2009	62,649	55,295	7,354	11.74%	51,987	6.77	20.04	7.76	9.63
2008	67,523	58,828	8,695	12.88%	50,347	6.56	19.92	7.37	9.14
2007	55,043	49,511	5,532	10.05%	49,217	6.56	19.59	7.37	9.14
2006	63,388	57,724	5,664	8.94%	53,270	6.56	19.69	7.37	9.14
2005	58,990	55,005	3,985	6.76%	49,287	6.11	18.42	7.33	9.10

(a) Reflects rate increase and rate restructuring for water usage beginning in November 2010. Prior to November, Water Base Rate (including TCEQ fees) was $6.96, Water Usage Rate was $20.52, Sewer Base Rate (including TCEQ fees) was $7.81 and Sewer Usage Rate was $9.63.
(b) Pumpage is total potable water production less Aquifer Storage and Recovery recharge
(c) Represents amounts billed to customers. Residential Class customers are billed based on water usage during a consecutive three month billing period from November through March. All other customer classes are billed for wastewater treatment based on actual water usage during each monthly billing period.
(d) Rate shown is for 5/8" meters. See Schedule 8 for the rates of other meter sizes. Includes the State-Imposed TCEQ fee. See Schedule 13 for additional information.
(e) Represents standard (non-seasonal) usage charge for monthly residential water usage of 7,788 gallons per month. Includes water supply and EAA fees.
(f) Minimum service availability charge (includes charge for first 1,496 gallons). Includes the State-Imposed TCEQ fee.
(g) Represents usage charge for a residential customer based on winter average water consumption of 6,178 gallons per month.

Number of Customers
(Average number billed)

	Fiscal Year 2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Water (a):										
Residential Class	347,789	343,667	339,204	335,280	331,853	327,610	323,754	318,270	308,807	298,271
General Class	23,777	23,713	23,582	23,369	23,225	23,242	23,104	22,943	22,662	22,384
Wholesale Class	7	8	8	7	7	7	7	7	7	6
Total Water	371,573	367,388	362,794	358,656	355,085	350,859	346,865	341,220	331,476	320,661
Irrigation Class (b)	8,966	8,821	8,633	8,479	8,350	8,202	7,940	7,602	7,232	6,883
Wastewater:										
Residential Class	395,574	390,256	383,553	378,380	373,755	368,948	361,966	352,038	338,693	326,516
General Class	25,079	25,021	24,824	24,550	24,407	24,285	23,999	23,604	23,408	23,016
Wholesale Class	12	12	12	12	7	12	13	11	12	12
Total Wastewater	420,665	415,289	408,389	402,942	398,169	393,245	385,978	375,653	362,113	349,544
Conservation - Residential Class (c)	20,716	20,867	23,804	33,708	21,791	26,665	29,973	15,548	31,716	27,963
Recycled Water	102	97	92	80	81	86	76	71	69	56

(a) Water Supply and EAA fees are billed to water customers with water usage.
(b) Represents the number of customers included in Residential, General and Wholesale Classes which also have irrigation meters.
(c) The residential class rate applied to monthly residential usage in excess of 17,205 gallons is designated as Conservation Fees. These customers are included in the residential class for water sales.

STATISTICAL SECTION (CONTINUED)

Sales by Source

($ in thousands)

	Fiscal Year									
	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Water Sales:										
Residential Class	$74,062	$71,536	$72,620	$79,332	$66,410	$65,333	$68,516	$56,096	$65,927	$58,351
General Class	37,878	35,099	35,504	33,571	32,326	32,943	32,330	29,313	31,606	28,613
Wholesale Class	3,233	1,640	1,255	234	136	204	179	120	145	182
Irrigation Class (a)	11,011	10,893	11,164	11,722	12,909	12,176	16,124	10,659	12,541	11,723
Total Water	126,184	119,168	120,543	124,859	111,781	110,656	117,149	96,188	110,219	98,869
Water Supply Fees (b)										
Residential Class	48,270	43,121	44,163	51,696	45,312	45,909	49,042	39,081	48,403	42,283
General Class	39,355	32,393	32,537	31,586	29,764	30,403	30,140	28,105	29,531	27,036
Wholesale Class	7,196	3,227	2,294	202	158	178	160	132	166	165
Irrigation Class	12,551	12,057	12,058	13,029	6,147	6,423	8,016	5,285	6,133	5,741
Total Water Supply Fees	107,372	90,798	91,052	96,513	81,381	82,913	87,358	72,603	84,233	75,225
EAA Pass-through fees (c)										
Residential Class	9,654	9,905	10,841	4,767	5,423	3,605	5,893	3,561	4,925	4,818
General Class	6,874	6,991	7,352	2,930	3,648	2,387	3,622	2,560	3,005	3,080
Wholesale Class	1,271	659	509	18	19	14	19	12	17	19
Irrigation Class	1,061	1,134	1,242	540	765	494	963	481	626	654
Total Pass-through fees	18,860	18,689	19,944	8,255	9,855	6,500	10,497	6,614	8,573	8,571
Conservation Fees:										
Residential Class	1,956	2,454	2,986	3,682	2,814	2,962	3,663	1,986	4,112	3,291
General Class	6,498	6,606	7,040	6,702	4,461	4,008	3,938	3,957	3,637	3,968
Total Conservation	8,454	9,060	10,026	10,384	7,275	6,970	7,601	5,943	7,749	7,259
Wastewater Sales:										
Residential Class	125,051	116,775	98,674	88,702	79,118	81,202	75,752	72,212	72,901	63,605
General Class	68,371	62,300	54,175	48,271	41,768	41,343	40,034	38,554	38,325	37,342
Wholesale Class	7,848	7,599	6,761	6,105	5,044	5,225	5,281	6,469	6,704	6,435
Surcharge	5,450	5,438	5,134	4,815	4,861	4,648	4,614	4,409	4,271	4,081
Total Wastewater	206,720	192,112	164,744	147,893	130,791	132,418	125,681	121,644	122,201	111,463
TCEQ Pass-through fees (d)										
Water customers	1,169	1,086	1,064	1,178	964	-	-	-	-	-
Wastewater customers	433	347	411	464	280	-	-	-	-	-
	1,602	1,433	1,475	1,642	1,244	-	-	-	-	-
Recycled Water Sales	5,086	5,161	5,074	5,068	3,955	4,393	4,287	3,244	3,795	3,100
Stormwater Fees	4,420	5,058	4,558	4,158	3,745	3,358	3,037	3,056	3,056	2,938
Chilled Water & Steam	11,251	12,719	12,485	11,715	12,337	12,714	12,758	13,101	13,243	13,371
Miscellaneous Fees and Charges	13,860	12,787	12,427	10,193	8,872	9,266	9,541	7,944	8,204	7,374
Provision for Uncollectible Accounts	(4,166)	(4,646)	(3,900)	(2,811)	(3,463)	(3,711)	(3,288)	(2,619)	(2,638)	(1,637)
Total Operating Revenue	$499,643	$462,339	$438,428	$417,869	$367,773	$365,477	$374,621	$327,718	$358,635	$326,533

(a) Effective December 1, 2000, an irrigation rate class was approved for water service provided through separate irrigation meters.
(b) Effective December 1, 2000, a water supply fee was approved on all potable water service.
(c) EAA pass-through fees are designed to recoup fees charged by Edwards Aquifer Authority (EAA). The fee is charged based on water usage. Any previous over or under recovery of fees in considered in determining the fees to be charged each year.
(d) TCEQ pass-through fees are designed to recoup fees charged by the Texas Commission on Environmental Quality (TCEQ). Fee is a per customer charge.

STATISTICAL SECTION *(CONTINUED)*

Sales in Gallons

(Gallons billed, in millions)

	Fiscal Year									
	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Water Sales (a):										
Residential Class	29,310	29,206	30,070	34,153	28,932	30,667	33,025	26,651	33,162	30,917
General Class	20,870	20,614	20,393	20,986	19,465	20,309	20,297	19,166	20,232	19,769
Wholesale Class	3,861	1,943	1,412	128	101	119	108	90	114	121
Irrigation Class	3,220	3,345	3,445	3,866	4,080	4,200	5,398	3,604	4,216	4,198
Total Water	57,261	55,108	55,320	59,133	52,578	55,295	58,828	49,511	57,724	55,005
Wastewater Sales:										
Residential Class	27,896	27,617	26,572	27,371	26,746	29,825	28,148	27,383	28,859	25,293
General Class	20,502	20,100	20,066	20,134	20,002	20,338	20,352	19,634	21,967	22,262
Wholesale Class	2,291	2,359	2,417	2,413	1,404	1,824	1,847	2,200	2,444	1,732
Total Wastewater	50,689	50,076	49,055	49,918	48,152	51,987	50,347	49,217	53,270	49,287
Conservation - Residential Class (b)	2,296	2,520	3,026	4,106	2,935	3,469	3,948	2,432	4,276	3,613
Recycled Water Sales	18,323	18,359	18,129	18,990	14,968	16,321	16,559	14,148	14,836	14,048

(a) Water Supply and EAA fees are billed based on the gallons billed for water sales.
(b) Gallons billed for conservation are included in the gallons billed for water sales.

STATISTICAL SECTION *(CONTINUED)*

Ten Largest Customers - Water

Customer		Principal Business	Usage *(million gallons)*	%	Total Revenue (a) *(in thousands)*	%
Fiscal Year Ended December 31, 2014:						
SAN ANTONIO WATER SYSTEM DISTRICT SPECIAL PROJECT	(b)	Public Water Utility	3,684	6.43	$ 11,146	4.25
CITY OF SAN ANTONIO		Municipal Entity	509	0.89	2,667	1.02
HEB GROCERY		Grocery	486	0.85	2,001	0.76
SAN ANTONIO HOUSING AUTHORITY		Public Housing	457	0.80	1,887	0.72
BEXAR COUNTY		County Government	368	0.46	1,428	0.55
NORTHSIDE INDEPENDENT SCHOOL DISTRICT		School System	262	0.64	1,263	0.48
CPS ENERGY		Public Power Utility	291	0.51	1,123	0.43
MAXIM INTEGRATED PRODUCT INC.		Electronics	274	0.48	963	0.37
NORTHEAST INDEPENDENT SCHOOL DISTRICT		School System	185	0.32	903	0.34
SAN ANTONIO INDEPDENDENT SCHOOL DISTRICT		School System	164	0.29	885	0.34
Subtotal (10 largest)			6,681	11.67	24,265	9.26
Balance from Other Customers			50,580	88.33	237,754	90.74
Total			57,261	100.00	$ 262,019	100.00

(a) Includes Conservation, Water Supply and EAA fees.
(b) Refer to Note C to the financial statements for more information regarding transactions between the San Antonio Water System District Special Project and the San Antonio Water System.

Ten Largest Customers - Wastewater

Customer	Principal Business	Usage *(million gallons)*	%	Total Revenue *(in thousands)*	%
Fiscal Year Ended December 31, 2014:					
HEB GROCERY	Grocery	437	0.90	$ 2,066	1.04
SAN ANTONIO HOUSING AUTHORITY	Public Housing	462	0.96	1,470	0.74
BEXAR COUNTY	County Government	301	0.62	1,019	0.51
L & H PACKING COMPANY	Beef Processor	117	0.24	741	0.37
TOYOTA	Automobile Manufacturer	198	0.41	715	0.36
MAXIM INTEGRATED PRODUCT, INC.	Electronics	204	0.42	644	0.32
CITY OF SAN ANTONIO	Municipal Entity	185	0.38	631	0.32
FRITO LAY, INC.	Food Manufacturer	69	0.14	547	0.27
TEXAS DEPARTMENT OF CRIMINAL JUSTICE	State Correctional Facility	131	0.27	494	0.25
NORTHSIDE INDEPENDENT SCHOOL DISTRICT	School System	148	0.31	491	0.25
Subtotal (10 largest)		2,254	4.66	8,818	4.42
Balance from Other Customers		46,144	95.34	190,487	95.58
Total		48,398	100.00	$ 199,305	100.00

WATER AND SEWER RATE SCHEDULES

RESIDENTIAL WATER RATES

Effective for consumption on or about January 1, 2016

The Service Availability Charge (minimum bill) 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.

2015 MONTHLY SERVICE AVAILABILITY CHARGE

METER SIZE	INSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE	OUTSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE
5/8"	$7.57	$9.86
3/4"	10.63	13.82
1"	16.72	21.72
1 1/2"	31.94	41.52
2"	50.18	65.26
3"	92.80	120.66
4"	153.67	199.78
6"	305.86	397.62
8"	488.47	635.03
10"	701.52	911.98
12"	1,310.24	1,703.33

2016 MONTHLY SERVICE AVAILABILITY CHARGE

METER SIZE	INSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE*	OUTSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE*
5/8"	$10.72	$13.94
3/4"	14.19	18.44
1"	21.09	27.42
1 1/2"	38.33	49.83
2"	59.01	76.70
3"	107.30	139.49
4"	176.26	229.13
6"	348.68	453.29
8"	555.59	722.26
10"	796.97	1036.06
12"	1,486.66	1,932.66

* Water Service Availability Charge shall be reduced by $2.14 Inside City Limits and $2.79 Outside City Limits, if usage does not exceed 2,992 gallons.

2015 MONTHLY VOLUME CHARGE

Step in gallons	INSIDE CITY LIMITS RATE PER 100 GALLONS Standard	INSIDE CITY LIMITS RATE PER 100 GALLONS Seasonal	OUTSIDE CITY LIMITS RATE PER 100 GALLONS Standard	OUTSIDE CITY LIMITS RATE PER 100 GALLONS Seasonal
First 5,985	$0.1006	$0.1006	$0.1310	$0.1310
Next 6,732	0.1457	0.1584	0.1894	0.2060
Next 4,488	0.2053	0.2355	0.2671	0.3062
Over 17,205	0.3596	0.4880	0.4675	0.6341

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.

2016 MONTHLY VOLUME CHARGE

Usage Gallon - Block Threshold	INSIDE CITY LIMITS RATE PER 100 GALLONS	OUTSIDE CITY LIMITS RATE PER 100 GALLONS
2,992	$0.0619	$0.0804
4,489	0.1083	0.1407
5,985	0.1391	0.1809
7,481	0.1701	0.2211
10,473	0.2010	0.2613
14,962	0.2320	0.3016
20,199	0.2784	0.3619
Over 20,199	0.4020	0.5227

WATER AND SEWER RATE SCHEDULES *(CONTINUED)*

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.

2015
MONTHLY SEWER RATE

INSIDE CITY LIMITS	OUTSIDE CITY LIMITS
First 1,496 gallons Minimum Charge $12.69	First 1,496 gallons Minimum Charge $15.25
Over 1,496 gallons $0.3365 per 100 gallons	Over 1,496 gallons $0.4038 per 100 gallons
Customers who do not have a winter record of water usage or an interim average will be billed an Unaveraged or Unmetered Residential Charge of $35.35 for Inside City Limits and $42.43 for Outside City Limits.	

2016
MONTHLY SEWER SERVICE AVAILABILITY CHARGE

METER SIZE	INSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE*	OUTSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE*
5/8”	$12.29	$14.75
3/4”	13.52	16.23
1”	15.36	18.44
1 1/2”	21.51	25.81
2”	30.73	36.88
3”	61.45	73.74
4”	92.18	110.62
6”	153.63	184.36
8”	245.80	294.97
10”	368.71	442.45
12”	491.61	589.93

2016
MONTHLY SEWER VOLUME CHARGE

Usage Gallon - Block Threshold	INSIDE CITY LIMITS RATE PER 100 GALLONS	OUTSIDE CITY LIMITS RATE PER 100 GALLONS
1,496	$0.000	$0.000
2,992	0.2627	0.3153
Over 2,992	0.3941	0.4729

Customers who do not have a winter record of water usage or an interim average will be billed will be billed for sewer service assuming 7,481 gallons monthly sewer usage. Customers with no San Antonio Water System or District Special Project water meter will be charged the Sewer Service Availability Charge based on a 5/8" meter size.

WATER AND SEWER RATE SCHEDULES *(CONTINUED)*

GENERAL CLASS WATER RATES

Including Apartment, Commercial, Industrial and Municipal

Effective for consumption on or about January 1, 2016

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 average annual usage. Increased unit rates apply as usage exceeds each customer's base amount.

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:

2015 MONTHLY SERVICE AVAILABILITY FEE

METER SIZE	INSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE	OUTSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE
5/8”	$10.53	$13.69
3/4”	15.05	19.56
1”	24.08	31.29
1 1/2””	46.65	60.65
2”	73.74	95.87
3”	136.96	178.06
4”	227.28	295.46
6”	453.06	588.98
8”	723.99	941.20
10”	1,040.08	1,352.11
12”	1,943.21	2,526.17

2016 MONTHLY SERVICE AVAILABILITY FEE

METER SIZE	INSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE	OUTSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE
5/8”	$11.58	$14.16
3/4”	16.55	20.17
1”	26.46	32.15
1 1/2””	51.24	62.09
2”	80.92	97.98
3”	150.27	181.81
4”	249.30	301.52
6”	496.88	600.85
8”	794.02	960.05
10”	1,140.64	1,379.09
12”	2,131.04	2,576.40

2015 MONTHLY VOLUME CHARGE

USAGE BLOCKS	INSIDE CITY LIMITS RATE PER 100 GALLONS	OUTSIDE CITY LIMITS RATE PER 100 GALLONS
Base	$0.1218	$0.1584
>100-125% of Base	0.1457	0.1893
>125-175% of Base	0.2042	0.2654
>175% of Base	0.2991	0.3887

2016 MONTHLY VOLUME CHARGE

USAGE BLOCKS	INSIDE CITY LIMITS RATE PER 100 GALLONS	OUTSIDE CITY LIMITS RATE PER 100 GALLONS
Base	$0.1514	$0.1969
>100-125% of Base	0.1742	0.2265
>125-175% of Base	0.2272	0.2954
>175% of Base	0.2651	0.3446

The Base Use is defined as 100% of the Annual Average Consumption

WATER AND SEWER RATE SCHEDULES *(CONTINUED)*

GENERAL CLASS SEWER RATES

2015
MONTHLY SEWER RATE

INSIDE CITY LIMITS	OUTSIDE CITY LIMITS
First 1,496 gallons - Minimum Charge $12.69	First 1,496 gallons - Minimum Charge $15.25
Over 1,496 gallons - $0.3365 per 100 gallons	Over 1,496 gallons - $0.4038 per 100 gallons

2016
MONTHLY SEWER SERVICE AVAILABILITY CHARGE

METER SIZE	INSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE*	OUTSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE*
5/8"	$12.29	$14.75
3/4"	13.52	16.23
1"	15.36	18.44
1 1/2"	21.51	25.81
2"	30.73	36.88
3"	61.45	73.74
4"	92.18	110.62
6"	153.63	184.36
8"	245.80	294.97
10"	368.71	442.45
12"	491.61	589.93

Customers with no San Antonio Water System or District Special Project water meter will be charged the Sewer Service Availability Charge based on a 2" meter size.

2016
MONTHLY SEWER VOLUME CHARGE

Usage Blocks Base*	INSIDE CITY LIMITS RATE PER 100 GALLONS	OUTSIDE CITY LIMITS RATE PER 100 GALLONS
1,496	$0.000	$0.000
Over 1,496	0.3520	0.4224

*The Base Use is defined as 100% of the Annual Average Consumption

WATER AND SEWER RATE SCHEDULES *(CONTINUED)*

WHOLESALE WATER AND SEWER RATES

Effective for Consumption on or about January 1, 2016

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.

2015 MONTHLY SERVICE AVAILABILITY FEE

METER SIZE	INSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE	OUTSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE
6"	$305.86	$397.62
8"	488.47	635.03
10"	701.52	911.98
12"	1,310.24	1,703.33

2016 MONTHLY SERVICE AVAILABILITY FEE

METER SIZE	NET SERVICE AVAILABILITY FEE
6"	$450.50
8"	719.48
10"	1,033.28
12"	1,929.88

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."

2015 MONTHLY VOLUME CHARGE

USAGE BLOCKS	RATE PER 100 GALLONS INSIDE CITY LIMITS	RATE PER 100 GALLONS OUTSIDE CITY LIMITS
Base	$0.0845	$0.1098
> 100-125% of Base	0.1269	0.1650
> 125-175% of Base	0.1833	0.2383
> 175% of Base	0.2592	0.3369

2016 MONTHLY VOLUME CHARGE

USAGE BLOCKS	RATE PER 100 GALLONS
Base*	$0.1755
Over Base	0.5266

The Base Use is defined as 100% of the Annual Average Consumption or as agreed to by the wholesale customer and approved by the 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.

2015 MONTHLY SEWER RATE

INSIDE CITY LIMITS	OUTSIDE CITY LIMITS
$0.3032 Volume charge per 100 gallons of contributed wastewater. ($2.28 per 100 cubic feet)	$149.02/ Service Availability Fee plus $0.3641 per 100 gallons of contributed wastewater. ($2.72 per 100 cubic feet)

2016 MONTHLY SEWER RATE

Sewer Service Availability Charge	$287.82
Monthly Volume All Usage	$0.3756

WATER AND SEWER RATE SCHEDULES *(CONTINUED)*

LANDSCAPE IRRIGATION SERVICE RATES

Effective for consumption on or about January 1, 2016

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 business service accounts 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:

2015
MONTHLY SERVICE AVAILABILITY FEE

METER SIZE	INSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE	OUTSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE
5/8"	$10.53	$13.69
3/4"	15.05	19.56
1"	24.08	31.29
1 1/2""	46.65	60.65
2"	73.74	95.87
3"	136.96	178.06
4"	227.28	295.46
6"	453.06	588.98
8"	723.99	941.20
10"	1,040.08	1,352.11
12"	1,943.21	2,526.17

2016
MONTHLY SERVICE AVAILABILITY FEE

METER SIZE	INSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE	OUTSIDE CITY LIMITS NET SERVICE AVAILABILITY FEE
5/8"	$11.58	$14.16
3/4"	16.55	20.17
1"	26.46	32.15
1 1/2""	51.24	62.09
2"	80.92	97.98
3"	150.27	181.81
4"	249.30	301.52
6"	496.88	600.85
8"	794.02	960.05
10"	1,140.64	1,379.09
12"	2,131.04	2,576.40

2015
MONTHLY VOLUME CHARGE

USAGE BLOCKS GALLONS	INSIDE CITY LIMITS RATE PER 100 GALLONS		OUTSIDE CITY LIMITS RATE PER 100 GALLONS	
	Standard	Seasonal	Standard	Seasonal
0 Gallons	$0.0000	$0.0000	$0.0000	$0.0000
Next 6,732	0.1713	0.1713	0.2225	0.2225
Next 10,473	0.2053	0.2384	0.2670	0.3100
Over 17,205	0.3596	0.4936	0.4675	0.6416

2016
MONTHLY VOLUME CHARGE

USAGE GALLON - Block Threshold	INSIDE CITY LIMITS RATE PER 100 GALLONS	OUTSIDE CITY LIMITS RATE PER 100 GALLONS
8,229 Gallons	$0.2752	$0.3577
17,954	0.3852	0.5008
162,316	0.4953	0.6439
Over 162,316	0.6329	08227

WATER AND SEWER RATE SCHEDULES *(CONTINUED)*

RECYCLED WATER RATES

Effective for consumption on or about January 1, 2016

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

2015 MONTHLY SERVICE AVAILABILITY FEE		2016 MONTHLY SERVICE AVAILABILITY FEE	
METER SIZE	NET SERVICE AVAILABILITY FEE	METER SIZE	NET SERVICE AVAILABILITY FEE
5/8"	$9.51	5/8"	$10.42
3/4"	12.37	3/4"	13.56
1"	16.11	1"	17.66
1 1/2""	25.61	1 1/2""	28.07
2"	37.45	2"	41.05
3"	99.61	3"	109.17
4"	148.06	4"	162.27
6"	282.44	6"	309.55
8"	425.73	8"	466.60
10"	583.77	10"	639.81
12"	720.27	12"	789.42

2015 MONTHLY VOLUME CHARGE			2016 MONTHLY VOLUME CHARGE		
	RATE PER 100 GALLONS			RATE PER 100 GALLONS	
USAGE IN GALLONS	Standard	Seasonal	USAGE IN GALLONS	Standard	Seasonal
Transferred Amount	$ 0.0250	$ 0.0250	Transferred Amount	$ 0.0274	$ 0.0274
All in excess of transferred amount	0.0938	0.0997	All in excess of transferred amount	0.1028	0.1093

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.

WATER AND SEWER RATE SCHEDULES *(CONTINUED)*

Non Edwards Exchange Customers

2015 MONTHLY SERVICE AVAILABILITY FEE	
METER SIZE	NET SERVICE AVAILABILITY FEE
5/8”	$9.51
3/4”	12.37
1”	16.11
1 1/2””	25.61
2”	37.45
3”	99.61
4”	148.06
6”	282.44
8”	425.73
10”	583.77
12”	720.27

2016 MONTHLY SERVICE AVAILABILITY FEE	
METER SIZE	NET SERVICE AVAILABILITY FEE
5/8”	$10.42
3/4”	13.56
1”	17.66
1 1/2””	28.07
2”	41.05
3”	109.17
4”	162.27
6”	309.55
8”	466.60
10”	639.81
12”	789.42

2015 MONTHLY VOLUME CHARGE		
	RATE PER 100 GALLONS	
USAGE IN GALLONS	Standard	Seasonal
First 748,000	$ 0.1004	$ 0.1079
Over 748,000	0.1026	0.1089

2016 MONTHLY VOLUME CHARGE		
	RATE PER 100 GALLONS	
USAGE IN GALLONS	Standard	Seasonal
First 748,000	$ 0.1100	$ 0.1183
Over 748,000	0.1124	0.1194

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.

WATER AND SEWER RATE SCHEDULES *(CONTINUED)*

WATER SUPPLY FEE

Effective for consumption on or about January 1, 2016

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:

CURRENT

RATE CLASS	Usage Blocks Gallons	Assessed Fee RATE PER 100 GALLONS
Residential	First 5,985	$0.1285
	Next 6,732	0.1858
	Next 4,488	0.2622
	Over 17,205	0.4589
General	Base*	0.1976
	>100-125% of Base	0.1976
	>125-175% of Base	0.1976
	>175% of Base	0.1976
Wholesale	Base*	0.1976
	>100-125% of Base	0.1976
	>125-175% of Base	0.1976
	>175% of Base	0.1976
Irrigation	0 Gallons	0.0000
	Next 6,732	0.1976
	Next 10,473	0.2622
	Over 17,205	0.4976

*The Base Use is defined as 100% of the Annual Average Consumption.

2016

RATE CLASS	Usage Gallon - Block Threshold	Assessed Fee RATE PER 100 GALLONS
Residential	2,992	$0.0892
	4,489	0.1561
	5,985	0.2007
	7,481	0.2454
	10,473	0.2900
	14,962	0.3346
	20,199	0.4015
	Over 20,199	0.5798
General	Base*	0.1683
	125% of Base	0.1936
	175% of Base	0.2525
	Over 175% of Base	0.2946
Wholesale	Base**	0.2193
	Over Base	0.6579
Irrigation	8,229	0.2202
	17,954	0.3083
	162,316	0.3964
	Over 162,316	0.5066

* The Base Use for General Class is defined as 100% of the Annual Average Consumption.

**The Base Use for the Wholesale Class is defined as 100% of the Annual Average Consumption or as agreed to by the wholesale customer and approved by the SAWS Board of Trustees.

WATER AND SEWER RATE SCHEDULES *(CONTINUED)*

EDWARDS AQUIFER AUTHORITY 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.

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

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

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.
Aquitard	A bed of low permeability along an aquifer
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.
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
Failure Impact	The impact on the customer
Failure Mode	The manner by which a failure is observed; it generally describes the way the failure occurs.
Failure Root Cause	Defects in design, process, quality, or part application, which are the underlying cause of the failure or which initiate a process which leads to failure.
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
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.
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.
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

ASR	Aquifer Storage and Recovery
AVR	Abengoa Vista Ridge
AWC	Average Winter Consumption
BGD	Brackish Groundwater Desalination
BRAC	Base Realignment and Closure
CCMA	Cibolo Creek Municipal Authority
CIP	Capital Improvement Program
COSA (CoSA)	City of San Antonio
CMOM	Capacity Management Operation and Maintenance
CPMS	Contracts and 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
ESOC	Eastside Operations Center
ETJ	Extraterritorial jurisdiction
FMEA	Failure Methods and Effects Analysis
FTE	Full-time equivalent
GASB	Government Accounting Standards Board
GFOA	Government Finance Officers Association
GIS	Geographic Information System

GPCD	Gallons per capita per day
HCP (EAHCP)	Edwards Aquifer Habitat Conservation Program
IVR	Interactive Voice Response
JBSA	Joint Base San Antonio
LCRA	Lower Colorado River Authority
ITP	Incidental take Permit
MGD	Million gallons per day
MSA	Metropolitan Statistical Area
MYFP	Multi-year Financial Plan
NWOC	Northwest Operations Center
O&M	Operations and Maintenance
OPEB	Other Post-Employment Benefits
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
TCEQ	Texas Commission on Environmental Quality
TECP	Tax exempt commercial paper
USFWS	U.S. Fish and Wildlife Service
USAA	United Services Automobile Association
WCTS	Wastewater collection and transmission system
WRC	Water Recycling Center

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