

AN ORDINANCE      2013 - 02 - 07 - 0081

**AUTHORIZING THE SAN ANTONIO WATER SYSTEM TO INCREASE OVERALL RATES BY 8.4 PERCENT AFFECTING THE WASTEWATER RATES AND WATER SUPPLY FEE; AND TARIFF AMENDMENTS TO CHAPTER 34 OF THE SAN ANTONIO CITY CODE TO IMPLEMENT THE RATE ADJUSTMENT.**

\* \* \* \* \*

**WHEREAS**, pursuant to Ordinance No. 75686 approved by the City Council on April 30, 1992, the City Council approved the creation of the San Antonio Water System (SAWS), a single unified system consisting of the City of San Antonio’s existing waterworks, wastewater and water re-use systems, together with all future improvements and additions thereto and replacements; and

**WHEREAS**, SAWS operates a combined water, chilled water and steam, and wastewater utility system on behalf of the City of San Antonio, which serves approximately 776,584 customers comprised of 365,099 water and 411,485 wastewater customers in the San Antonio metropolitan area; and

**WHEREAS**, on January 22, 2013 the SAWS Board of Trustees adopted a resolution recommending an increase to overall rates of 8.4 percent, which will increase annual revenues by an estimated \$22.6 million, in order to meet the financial requirements of the 2013 proposed budget for SAWS – the Board Resolution is attached as Exhibit A; and

**WHEREAS**, the overall 8.4 percent proposed rate adjustment will increase Wastewater Service rates by 16.5 percent and Water Supply Service rates by 2.5 percent; and

**WHEREAS**, pursuant to Article XI, Section 136 of the San Antonio City Charter, the Supervisor of Public Utilities is required to “assemble the facts which are essential to proper determination of cost of service and the fixing of reasonable rates” for the purpose of presenting a report and recommendations to City Council associated with proposed rate adjustments by SAWS; and

**WHEREAS**, the 8.4 percent rate increase is the result of recommended fiscal adjustments by SAWS and the Supervisor of Public Utilities through the Office of Public Utilities (City Public Utilities Staff) of the Finance Department as outlined in the City Staff’s Interdepartmental Correspondence Memorandum dated January 16, 2013 (City Staff Memo), which is attached as Exhibit B; and

**WHEREAS**, in addition to the fiscal adjustments, the City Public Utilities Staff made recommendations to investigate efficiency measures in the organization in order to reduce expenditures as well as provide more efficient and productive services, which recommendations appear in City Staff Memo attached as Exhibit B; and

**WHEREAS**, the SAWS rate analysis incorporates an annual customer growth rate of 1.4 percent for Water service customers and 1.8 percent for Wastewater service customers from December 2012 to December 2013; and

**WHEREAS**, the proposed rate adjustment will not affect rates for the water delivery category, and does not make any changes to the rate design structure approved by the City Council on June 17, 2010 in Ordinance No. 2010-06-17-0532; and

**WHEREAS**, over the next five years SAWS is facing capital expenditures in the estimated amount of \$1.84 billion to fund its capital improvement plan (CIP) to diversify water resources (\$490 million), implement wastewater infrastructure improvements (\$972 million), implement water infrastructure improvements (\$362 million), and upgrade chilled water and steam delivery facilities (\$18 million) – such investments are consistent with the SAWS 2012 Water Management Plan which was most recently adopted by the SAWS Board of Trustees on December 4, 2012 (the SAWS 2012 Water Management Plan is attached as Exhibit C); and

**WHEREAS**, the primary drivers for the rate adjustment are the financing of capital expenditures related to wastewater infrastructure associated with the SAWS Sanitary Sewer Overflow (SSO) Program, and capital requirements necessary to continue to promote diversity in water supply resources; and

**WHEREAS**, SAWS made four presentations to the City Council to provide testimony in support of the proposed rate adjustment on: (1) November 14, 2012 – B Session - SSO Program, Revenue Requirements, and Operation & Maintenance Costs (attached as Exhibit D); (2) November 14, 2012 – B Session - Water Management Plan (attached as Exhibit E); (3) December 6, 2012 – A Session - SSO Reduction Plan, Capital Improvements, and Water Supply (attached as Exhibit F); and (4) February 7, 2013 – A Session - 2013 Rate Request (attached as Exhibit G); and

**WHEREAS**, in addition to the presentations made before City Council, SAWS participated in numerous public outreach meetings related to the planning, deliberation, and explanation of the proposed rate adjustment; conducted briefings with all City Council offices and made presentations in each council district; submitted to a multi-month financial review by the City's Finance Department, Office of Public Utilities; briefed the SAWS Board of Trustees; hosted multiple open houses, community gatherings and neighborhood meetings throughout the City which were open to the public; met with several affected commercial parties, including the various chambers of commerce; posted information concerning the proposed rate adjustment on the SAWS Internet site; sent Public Notice inserts to all water delivery and wastewater customers; and sent informational e-newsletters advising of the proposed rate adjustment to customers receiving electronic billing statements – (a list of outreach efforts is attached as Exhibit H); and

**WHEREAS**, the City Public Utilities Staff conducted a review of the proposed rate adjustments by focusing in the following areas: (1) five year capital improvements plan for wastewater infrastructure, water supply resources, water delivery network, and chilled water and steam facilities; (2) operations and maintenance expenses; (3) debt financing/rate model and plan; (4)

sales forecast; (5) cash flow analysis; (6) key financial targets; (7) revenue requirement; (8) credit considerations; (9) bill impact analysis; and (10) increase to the SAWS affordability discount program; and

**WHEREAS**, on January 16, 2013, City Public Utility Staff briefed the City Council and made recommendations supporting the proposed 8.4 percent overall rate adjustment consistent with the City Staff Memo (attached as Exhibit B) – the City Public Utilities Staff presentation is attached as Exhibit I; and

**WHEREAS**, the proposed rate adjustment is expected to increase monthly rates for the average residential customer by \$3.88 to \$50.33, assuming average residential water consumption of 7,788 gallons per month and average winter wastewater consumption of 6,178 gallons per month; and

**WHEREAS**, SAWS proposes to increase annual funding for its Affordability Discount Program by 20% from \$1.75 million to \$2.1 million – this program provides a discount off each monthly bill for eligible customers who have an income at or below 125 percent of the federal poverty guidelines and are elderly, disabled, or have children under the age of 18 years; and

**WHEREAS**, the rate adjustments and increased funds to the SAWS affordability program are consistent with Section 1502.057 of the Texas Government Code which requires municipal utility rates to recover all operating, maintenance, depreciation, replacement, improvement, and interest charges in connection with the utility system; and any outstanding debt against the system; **NOW THEREFORE:**

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SAN ANTONIO:**

**SECTION 1.** In the exercise of its governmental regulatory authority, the City Council of the City of San Antonio approves the proposed 8.4 percent overall increase to the wastewater service and water supply rates which is intended to generate annual revenues in the estimated amount of \$22.6 million. The adjusted rates for all affected customers in the wastewater and water supply rate classes are set out in Exhibit J.

**SECTION 2.** The SAWS Board of Trustees is directed to consider conducting a review for operational efficiencies, preparing an organizational assessment, and developing a program to identify organizational efficiencies and cost saving measures taking into consideration these and other recommendations of the Supervisor of Public Utilities found in the City Staff Memo attached as Exhibit B. Findings and conclusions from these efforts should be presented to the City prior to the next rate request.

**SECTION 3.** Chapters 34 of the San Antonio Code of Ordinances is amended by adding the underscored words, rates and fees, and deleting those struck through words, rates and fees as set out in Exhibit J.

**SECTION 4.** Within 60 days following the effective date of this Ordinance, SAWS shall send notification of the new rates to all affected customers by direct mail or electronic message for customers that have elected to receive electronic invoices.

**SECTION 5.** The adjusted rates are based on the cost of service method and were reviewed by the Supervisor of Public Utilities, and based on the testimony presented and analysis conducted by SAWS and the Supervisor of Public Utilities, the City Council of the City of San Antonio finds and determines that said rate adjustments are fair and reasonable, equal and uniform, nondiscriminatory, and necessary to meet the revenue requirements of the SAWS utility system.

**SECTION 6.** This Ordinance becomes effective immediately upon the receipt of eight affirmative votes, or in the event eight affirmative votes are not received, on the tenth day after passage. The revised rates as set out in Exhibit J, and as approved by this Ordinance, shall become effective on March 1, 2013.

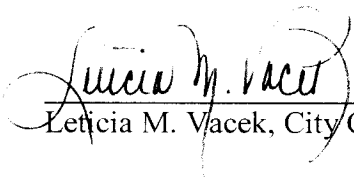
**PASSED AND APPROVED,** this 7<sup>th</sup> day of February 2013.




M A Y O R  
Julián Castro

**ATTEST:**

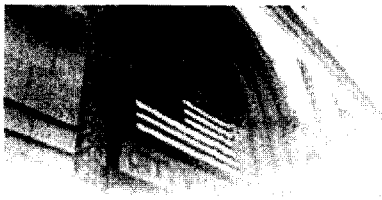
**APPROVED AS TO FORM:**



\_\_\_\_\_  
Leticia M. Vacek, City Clerk

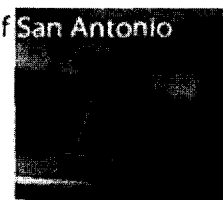


\_\_\_\_\_  
Michael D. Bernard, City Attorney



Request for  
**COUNCIL**  
ACTION

City of San Antonio



## Agenda Voting Results - 4A

<b>Name:</b>	4A, 4B						
<b>Date:</b>	02/07/2013						
<b>Time:</b>	02:04:45 PM						
<b>Vote Type:</b>	Motion to Approve						
<b>Description:</b>	An Ordinance approving adjustments to the San Antonio Water System's water supply and wastewater rates respectively, which collectively equate to an overall system wide increase of 8.4%.						
<b>Result:</b>	Passed						
Voter	Group	Not Present	Yea	Nay	Abstain	Motion	Second
Julián Castro	Mayor		x				
Diego Bernal	District 1		x				
Ivy R. Taylor	District 2		x				
Leticia Ozuna	District 3		x				
Rey Saldaña	District 4		x				
David Medina Jr.	District 5			x			
Ray Lopez	District 6		x				x
Cris Medina	District 7		x				
W. Reed Williams	District 8		x			x	
Elisa Chan	District 9			x			
Carlton Soules	District 10			x			

<b>Name:</b>	4A, 4B						
<b>Date:</b>	02/07/2013						
<b>Time:</b>	02:04:28 PM						
<b>Vote Type:</b>	Other: Approve a 6.4%						
<b>Description:</b>	An Ordinance approving adjustments to the San Antonio Water System's water supply and wastewater rates respectively, which collectively equate to an overall system wide increase of 8.4%.						
<b>Result:</b>	Failed						
Voter	Group	Not Present	Yea	Nay	Abstain	Motion	Second

Julián Castro	Mayor			x			
Diego Bernal	District 1			x			
Ivy R. Taylor	District 2			x			
Leticia Ozuna	District 3			x			
Rey Saldaña	District 4			x			
David Medina Jr.	District 5			x			
Ray Lopez	District 6			x			
Cris Medina	District 7			x			
W. Reed Williams	District 8			x			
Elisa Chan	District 9		x				x
Carlton Soules	District 10		x			x	

# **EXHIBIT “A”**

**TO:** San Antonio Water System Board of Trustees

**FROM:** Dan Crowley, Director, Financial Planning and Douglas Evanson, Sr. Vice President/Chief Financial Officer

**THROUGH:** Robert R. Puente, President/Chief Executive Officer

**SUBJECT: RATE ADJUSTMENT RECOMMENDATIONS**

Board Action Date: January 22, 2013

**SUMMARY AND RECOMMENDATION:**

The attached Resolution authorizes the submittal to the San Antonio City Council for review and approval of adjustments to all Water Supply Fee and wastewater rates. The adjustments to the rates are necessary to provide adequate funding for the costs of operating and maintaining the System, repairing and replacing the aging infrastructure, and investing in water supply initiatives in support of the 2012 Water Management Plan update.

On December 4, 2012, the Board of Trustees approved the Annual Budget of the San Antonio Water System for the Fiscal Year ending December 31, 2013. This interim budget did not take into account any rate increases to the Water Supply Fee, Water Delivery rates, and Wastewater rates, and balanced revenue requirements with available sources of funds. At the time of passage, staff indicated that a rate increase proposal would be forthcoming shortly after year-end. Upon City Council approval of any rate increase, a formal budget amendment will be submitted at the next SAWS Board meeting.

Proposed rate adjustments of 2.5% for Water Supply Fee rates and 16.5% for Wastewater rates are recommended to support the proposed operating and capital budget for 2013. Water Delivery, Irrigation, and Recycled Water rate schedules are not planned to be adjusted. The adjustments to the Water Supply Fee and wastewater rates are proposed to have a combined increase of 8.4% for the average SAWS water and wastewater customer bill, assuming an average customer uses 7,788 gallons of water and 6,178 gallons of wastewater per month.

The proposed rates are as shown in Attachment I, Schedules A, B, C, and E to the Resolution.

The rate adjustments are proposed to be effective for usage on or about March 1, 2013, and shall be applied to all billings after one complete monthly billing period on or about April 1, 2013.

Staff recommends that the Board approve this resolution.



**FINANCIAL IMPACT:**

The approval of these rate adjustments recommended by the resolution will recover approximately \$22.6 million of additional gross metered revenues in calendar year 2013.

**SUPPLEMENTARY COMMENTS:**

- The Public Utilities Office of the City of San Antonio has reviewed the methodology and calculations of the proposed rate adjustments.

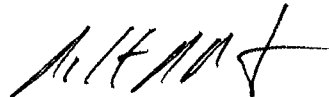


Dan Crowley  
Director, Financial Planning



Douglas P. Evanson  
Senior Vice President/Chief Financial Officer

APPROVED:



Robert R. Puente  
President/Chief Executive Officer

**RESOLUTION NO. 13-031**

**OF THE SAN ANTONIO WATER SYSTEM BOARD OF TRUSTEES DETERMINING THE NECESSITY FOR ADJUSTMENTS TO ALL WATER SUPPLY FEE AND WASTEWATER RATES; DETERMINING THE NECESSITY FOR NO ADJUSTMENT TO ANY WATER DELIVERY, IRRIGATION, AND RECYCLED WATER RATES; DIRECTING THAT A FULL REPORT OF THE BASIS FOR THE PROPOSED ADJUSTMENTS TO ALL WATER SUPPLY FEE AND WASTEWATER RATES BE SUBMITTED TO THE CITY COUNCIL; RECOMMENDING THAT THE CITY COUNCIL OF THE CITY OF SAN ANTONIO ADOPT SUCH ADJUSTMENTS TO THE WATER SUPPLY FEE AND WASTEWATER RATES; FURTHER RECOMMENDING THAT THE CITY COUNCIL ADOPT CERTAIN AMENDMENTS TO CHAPTER 34 OF THE CITY CODE OF THE CITY OF SAN ANTONIO AND RATE SCHEDULES INCORPORATED THEREIN; MAKING THE RATES ADJUSTMENTS EFFECTIVE FOR CONSUMPTION ON OR ABOUT MARCH 1, 2013; FINDING THIS RESOLUTION TO HAVE BEEN CONSIDERED PURSUANT TO THE LAWS GOVERNING OPEN MEETINGS; PROVIDING A SEVERABILITY CLAUSE; AND ESTABLISHING AN EFFECTIVE DATE**

WHEREAS, Ordinance No. 75686 adopted April 30, 1992 by the City Council of the City of San Antonio, Texas requires that the San Antonio Water System Board of Trustees (the "Board") shall determine the rates, fees and charges for services rendered and to be rendered by the System with due consideration being accorded to the terms, covenants, and conditions contained in such Ordinance; and

WHEREAS, adjustments are recommended to all Water Supply Fee and wastewater rates to provide sufficient funding to support the System's proposed water resources and wastewater operating and capital budgets for 2013; and

WHEREAS, adjustments to all water delivery, irrigation, and recycled water rates are not necessary to provide funding to support the System's proposed operating and capital budget for 2013; and

WHEREAS, the Board desires to continue to assist in maintaining the charges for water supply, water delivery, and wastewater services to be affordable to all of its customers, especially for the low income residential customers; and

WHEREAS, the System has followed and continues to follow all applicable notification requirements for rate adjustments for water supply, water delivery, and wastewater service; and

**WHEREAS**, the San Antonio City Council is empowered to approve and adopt such proposed structure changes and adjustments to rates and charges; and

**WHEREAS**, the San Antonio Water System Board of Trustees desires (i) to determine the necessity for adjustments to all Water Supply Fee and wastewater rates, (ii) to determine the necessity for no adjustment to any water delivery, irrigation, and recycled water rates, (iii) to direct that a full report of the basis for the proposed adjustments to all Water Supply Fee and wastewater rates be submitted to the City Council of the City of San Antonio, (iv) to recommend that the City Council adopt such adjustments to the Water Supply Fee and wastewater rates, (v) to recommend further that the City Council adopt certain amendments to Chapter 34 of the City Code of the City of San Antonio and the rate schedules incorporated herein, (vi) to recommend making the rate adjustments effective for consumption on or about March 1, 2013. Now therefore:

**BE IT RESOLVED BY THE SAN ANTONIO WATER SYSTEM BOARD OF TRUSTEES:**

1. That the necessity for adjustments to all Water Supply Fee and wastewater rates to support the System's proposed water resources and wastewater operating and capital budget for 2013 is hereby determined.
2. That the necessity for no adjustment to any water delivery, irrigation, and recycled water rates to support the System's proposed operating and capital budget for 2013 is hereby determined.
3. That the submission of a full report of the basis for the proposed adjustments to all Water Supply Fee and wastewater rates is hereby directed to be made to the City Council of the City of San Antonio.
4. That the adoption by the City Council of such adjustments to the Water Supply Fee and wastewater rates is hereby recommended.
5. That the adoption of the amendments to Chapter 34 of the City Code of the City of San Antonio and the Rate Schedules incorporated therein, all as set out in Attachment I, by the City Council of the City of San Antonio is hereby recommended. Such adjustments are set out in Schedules A, B, C, and E of Attachment I, which Attachment I is attached hereto and incorporated herein for all purposes.
6. That the implementation of the adjustments to the Water Supply Fee and wastewater rates set out in Attachment I, if adopted by the City Council of the City of San Antonio, is hereby authorized. Such adjustments set out in Attachment I shall become effective for consumption on or about March 1, 2013, and shall be applied to all billings after one complete monthly billing period on or about April 1, 2013.
7. That the recitals set out above are fully incorporated into this resolution.
8. It is officially found, determined and declared that the meeting at which this resolution is adopted was open to the public, and that public notice of the time, place and subject matter of the public business to be conducted at such meeting, including this resolution,

was given to all as required by the Texas Codes Annotated, as amended, Title 5, Chapter 551, Government Code.

9. If any part, section, paragraph, sentence, phrase or word of this resolution is, for any reason, held to be unconstitutional, illegal, inoperative or invalid, or if any exception to or limitation upon any general provision herein contained is held to be unconstitutional, illegal, invalid or ineffective, the remainder of this resolution shall nevertheless stand effective and valid as if it had been enacted without the portion held to be unconstitutional, illegal, invalid or ineffective.
10. This Resolution becomes effective immediately upon its passage.

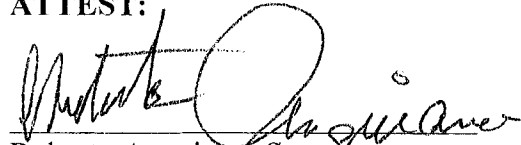
**PASSED AND APPROVED** this the twenty second day of January 2013.



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Berto Guerra Jr., Chairman

**ATTEST:**

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Roberto Anguiano, Secretary

## ATTACHMENT I

### AMENDMENTS TO CHAPTER 34, ARTICLE III OF THE SAN ANTONIO CITY CODE

The City Code of the City of San Antonio Chapter 34, Water and Sewers, Article III, Sewer Service and Rates, Section 34-226, Establishment of Rates and Schedules, is hereby amended by deleting the language that is stricken and adding the language that is underlined (added) as set forth herein.

#### **Article III, Sewer Service and Rates**

Rate Schedules A, B, and C relating to wastewater residential, general, and wholesale customers are hereby amended and shall hereinafter read as attached hereto and incorporated herein.

#### **Section 34.226. Establishment of Rates and Schedules, Rates Schedules and Affordability Discount Analysis**

~~The schedule of sewer service rates and charges contained in Schedule A for residential sewer service customers, the schedule of sewer service rates and charges contained in Schedule B for general sewer service customers, and the sewer service rates and charges contained in Schedule C for wholesale sewer service customers, as amended attached hereto, shall be effective for all consumption on or about January 1, 2012, and shall be the lawful rates for sewer service to be charged by the System.~~

The schedule of sewer service rates and charges contained in Schedule A for residential sewer service customers, the schedule of sewer service rates and charges contained in Schedule B for general sewer service customers, and the sewer service rates and charges contained in Schedule C for wholesale sewer service customers, as amended attached hereto, shall be effective for all consumption on or about March 1, 2013, and shall be the lawful rates for sewer service to be charged by the System.

Rate Schedules A, B and C relating to sewer service for residential, general and wholesale customers are hereby amended and shall hereinafter read as attached hereto and incorporated herein.

## **AMENDMENTS TO CHAPTER 34, ARTICLE IX OF THE SAN ANTONIO CITY CODE**

The City Code of the City of San Antonio Chapter 34, Water and Sewers, Article IX, Water Supply Fee is hereby amended by deleting the language that is stricken and adding the language that is underlined (added) as set forth herein.

### **Article IX, Water Supply Fee**

#### **Section 34-1345. Water Supply Fee Schedule**

~~The Water Supply Fee which will be applied to all consumption beginning on or about January 1, 2012 is set out in Schedule E to this Chapter. Such water supply fee schedule shall remain in effect as set out in Schedule E until the System's Board of Trustees and Council of the City of San Antonio determine that an additional adjustment is necessary to most effectively meet the water supply development needs of system customers.~~

The Water Supply Fee which will be applied to all consumption beginning on or about March 1, 2013 is set out in Schedule E to this Chapter. Such Water Supply Fee schedule shall remain in effect as set out in Schedule E until the System's Board of Trustees and Council of the City of San Antonio determine that an additional adjustment is necessary to most effectively meet the water supply development needs of system customers.

ATTACHMENT I  
Schedule A

**RESIDENTIAL CLASS WATER AND SEWER RATE SCHEDULES**  
**SAN ANTONIO WATER SYSTEM**  
San Antonio, Texas

Effective for Consumption on or about March 1, 2013

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

MONTHLY SERVICE AVAILABILITY CHARGE

Meter Size	Service Availability Charge
5/8"	\$7.14
3/4"	10.01
1"	15.75
1-1/2"	30.09
2"	47.28
3"	87.44
4"	144.78
6"	288.17
8"	460.22
10"	660.95
12"	1,234.47

MONTHLY VOLUME CHARGE

Usage Blocks Gallons	Rate Per 100 Gallons	
	Standard	Seasonal
First 5,985	\$0.0948	\$0.0948
Next 6,732	0.1372	0.1492
Next 4,488	0.1935	0.2219
Over 17,205	0.3388	0.4597

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.

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

MONTHLY SERVICE AVAILABILITY CHARGE

Meter Size	Service Availability Charge
5/8"	\$9.29
3/4"	13.02
1"	20.47
1-1/2"	39.12
2"	61.48
3"	113.68
4"	188.23
6"	374.62
8"	598.30
10"	859.24
12"	1,604.82

MONTHLY VOLUME CHARGE

Usage Blocks Gallons	Rate Per 100 Gallons	
	Standard	Seasonal
First 5,985	\$0.1234	\$0.1234
Next 6,732	0.1784	0.1940
Next 4,488	0.2516	0.2885
Over 17,205	0.4405	0.5975

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.

**SEWER**

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.

INSIDE CITY LIMITS (ICL)

Monthly Service Availability Charge (includes first 1,496 gallons) - \$11.49  
Over 1,496 gallons - \$0.3047 per 100 gallons.

Customers who do not have a record of winter water usage or an interim average will be billed an Unaveraged or Unmetered Residential Charge of \$32.00 per month.

OUTSIDE CITY LIMITS (OCL)

Monthly Service Availability Charge (includes first 1,496 gallons) - \$13.81  
Over 1,496 gallons - \$0.3656 per 100 gallons.

Customers who do not have a record of winter water usage or an interim average will be billed an Unaveraged or Unmetered Residential Charge of \$38.41 per month.

ATTACHMENT 1  
Schedule B

**GENERAL CLASS WATER AND SEWER RATE SCHEDULES  
SAN ANTONIO WATER SYSTEM**

San Antonio, Texas

Effective for Consumption on or about March 1, 2013

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

MONTHLY SERVICE AVAILABILITY CHARGE		MONTHLY VOLUME CHARGE	
<u>Meter Size</u>	<u>Service Availability Charge</u>	<u>Usage Blocks, Gallons</u>	<u>Rate Per 100 Gallons</u>
5/8"	\$9.92	<u>Base*</u>	<u>\$0.1148</u>
3/4"	14.18	<u>&gt;100-125% of Base</u>	<u>0.1372</u>
1"	22.68	<u>&gt;125-175% of Base</u>	<u>0.1924</u>
1-1/2"	43.95	<u>&gt;175% of Base</u>	<u>0.2818</u>
2"	69.48		
3"	129.04		
4"	214.13		
6"	426.86		
8"	682.12		
10"	979.93		
12"	1,830.83		

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

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

MONTHLY SERVICE AVAILABILITY CHARGE		MONTHLY VOLUME CHARGE	
<u>Meter Size</u>	<u>Service Availability Charge</u>	<u>Usage Blocks, Gallons</u>	<u>Rate Per 100 Gallons</u>
5/8"	\$12.89	<u>Base*</u>	<u>\$0.1492</u>
3/4"	18.43	<u>&gt;100-125% of Base</u>	<u>0.1783</u>
1"	29.48	<u>&gt;125-175% of Base</u>	<u>0.2501</u>
1-1/2"	57.14	<u>&gt;175% of Base</u>	<u>0.3662</u>
2"	90.33		
3"	167.76		
4"	278.37		
6"	554.91		
8"	886.76		
10"	1,273.92		
12"	2,380.08		

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

**SEWER**

Sewer service charges are computed from the water usage schedules below for all metered connections.

**INSIDE CITY LIMITS (ICL)**

**OUTSIDE CITY LIMITS (OCL)**

Monthly Service Availability Charge (includes first 1,496 gallons) - \$11.49

Monthly Service Availability Charge (includes first 1,496 gallons) - \$13.81

Over 1,496 gallons - \$0.3047 per 100 gallons.

Over 1,496 gallons - \$0.3656 per 100 gallons.



ATTACHMENT I  
Schedule C

**WHOLESALE CLASS WATER AND SEWER RATE SCHEDULES  
SAN ANTONIO WATER SYSTEM**

San Antonio, Texas

Effective for Consumption on or about March 1, 2013

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

MONTHLY SERVICE AVAILABILITY CHARGE		MONTHLY VOLUME CHARGE	
<u>Meter Size†</u>	<u>Service Availability Charge</u>	<u>Usage Blocks, Gallons</u>	<u>Rate Per 100 Gallons</u>
6"	\$288.17	<u>Base*</u>	<u>\$0.0796</u>
8"	460.22	<u>&gt;100-125% of Base</u>	<u>0.1196</u>
10"	660.95	<u>&gt;125-175% of Base</u>	<u>0.1727</u>
12"	1,234.47	<u>&gt;175% of Base</u>	<u>0.2442</u>

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

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

MONTHLY SERVICE AVAILABILITY CHARGE		MONTHLY VOLUME CHARGE	
<u>Meter Size†</u>	<u>Service Availability Charge</u>	<u>Usage Blocks, Gallons</u>	<u>Rate Per 100 Gallons</u>
6"	\$374.62	<u>Base*</u>	<u>\$0.1035</u>
8"	598.30	<u>&gt;100-125% of Base</u>	<u>0.1555</u>
10"	859.24	<u>&gt;125-175% of Base</u>	<u>0.2245</u>
12"	1,604.82	<u>&gt;175% of Base</u>	<u>0.3174</u>

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

† 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."

**SEWER**

INSIDE CITY LIMITS (ICL)

\$0.2746 Monthly Volume Charge per 100 gallons of contributed wastewater. (\$2.06 per 100 cubic feet)

OUTSIDE CITY LIMITS (OCL)

\$134.93 Monthly Service Availability Charge plus \$0.3297 Monthly Volume Charge per 100 gallons of contributed wastewater. (\$2.47 per 100 cubic feet)

ATTACHMENT I  
Schedule E

**WATER SUPPLY FEE SCHEDULE  
SAN ANTONIO WATER SYSTEM**

San Antonio, Texas

Effective for Consumption on or about March 1, 2013

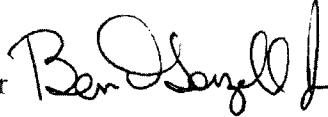
The Water Supply Fee assessed on all potable water service for water usages in every instance of service for each month or fraction thereof shall be as follows:

<u>Rate Class</u>	<u>Usage Blocks, Gallons</u>	<u>Fee to be Assessed (per 100 gallons)</u>
<u>Residential</u>	<u>First 5,985</u>	<u>\$0.1080</u>
	<u>Next 6,732</u>	<u>\$0.1562</u>
	<u>Next 4,488</u>	<u>\$0.2204</u>
	<u>Over 17,205</u>	<u>\$0.3857</u>
<u>General</u>	<u>Base*</u>	<u>\$0.1661</u>
	<u>&gt;100-125% of Base</u>	<u>\$0.1661</u>
	<u>&gt;125-175% of Base</u>	<u>\$0.1661</u>
	<u>&gt;175% of Base</u>	<u>\$0.1661</u>
<u>Wholesale</u>	<u>Base*</u>	<u>\$0.1661</u>
	<u>&gt;100-125% of Base</u>	<u>\$0.1661</u>
	<u>&gt;125-175% of Base</u>	<u>\$0.1661</u>
	<u>&gt;175% of Base</u>	<u>\$0.1661</u>
<u>Irrigation</u>	<u>0 Gallons</u>	<u>\$0.0000</u>
	<u>Next 6,732</u>	<u>\$0.1661</u>
	<u>Next 10,473</u>	<u>\$0.2204</u>
	<u>Over 17,205</u>	<u>\$0.4183</u>

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

# **EXHIBIT “B”**

**CITY OF SAN ANTONIO  
INTERDEPARTMENTAL CORRESPONDENCE  
CITY MANAGER'S OFFICE**

**TO:** Sheryl Sculley, City Manager  
**FROM:** Ben Gorzell Jr., Chief Financial Officer   
**COPIES:** Mayor and City Council; Michael Bernard, City Attorney  
**SUBJECT:** Report on Proposed Adjustments to SAWS Rates and Rate Structure  
**DATE:** January 16, 2013

**BACKGROUND:**

The San Antonio Water System (SAWS) has proposed adjustments to its water supply fee and wastewater rates which are equivalent to an overall 11.3% system-wide increase. Of this overall 11.3% system-wide increase, the majority, or 20.2% was to be applied to the Wastewater Core with the remaining 8.4% applied to the Water Supply Core Business. The proposed rate increase is scheduled to become effective March 1, 2013. Briefings on the proposed rate adjustments were held on November 14<sup>th</sup>, December 6<sup>th</sup>, and December 12<sup>th</sup> and covered topics such as revenue requirements, operations and maintenance budget, capital improvements program, wastewater sanitary sewer overflow (SSO) program, customer bill impacts, financial projections and proposed updates to the Drought Management Plan.

The Public Utilities Staff ("Staff") of the Finance Department and SAWS staff have been reviewing potential adjustments to the original rate request of 11.3%. Based on these reviews, the adjustments recommended are summarized below which would lower the overall system-wide increase from 11.3% to 8.4%:

Original Rate Request	<u><u>11.3%</u></u>
Proposed Adjustments:	
Updated Revenue Projections	(0.6%)
Inclusion of LCRA Payment	(0.3%)
Debt Program	(1.2%)
Capital Outlay – Fleet	(0.4%)
Reduce Operations & Maintenance	(0.3%)
Reserve Fund Adjustment	<u>(0.1%)</u>
Proposed Revised Request	<u><u>8.4%</u></u>

Additional information related to each of these proposed adjustments follows. The revenue projections and assumptions for calendar year 2013 and forward were updated based upon additional information now available on actual system revenues and customer growth for the second half of calendar year 2012. These revised projections reduce the revenue requirement for

2013 and, as such, result in the ability to lower the rate request by 0.6%. Additionally, the rate model was revised to recognize the annual payment from the settlement with the Lower Colorado River Authority (LCRA) as recurring revenue within the rate model. The inclusion of this annual payment resulted in a reduction in the rate request of 0.3%.

With respect to the debt management program, the issuance of \$100 million of variable rate debt instead of fixed rate debt and potential advanced refunding of existing debt was included in the debt program. With the addition of the variable rate debt and projected savings from the refinancing of debt, the rate request can be reduced by 1.2%. SAWS has also identified capital outlay associated with its fleet that has met the criteria for replacement, however, SAWS believes the equipment can continue to be utilized and replaced at a later date.

Various line items within the Operations & Maintenance Budget were reduced and/or adjusted resulting in a reduction of \$1.85 million of which a portion reduces the rate request by 0.3%. The last item noted is related to the removal of a \$2.7 million reservation payment included in 2014 for the Request for Competitive Sealed Proposal for a Water Supply Project which would deliver 50,000 acre feet of water. The result in 2013 is to remove the impact on the SAWS operating reserve requirement resulting in a reduction of 0.1%. Based upon all of the aforementioned adjustments, SAWS is expected to lower the rate request for 2013 to 8.4%.

In summary, after all adjustments outlined above, the rate adjustment would be an 8.4% system wide increase allocated as follows: 16.5% to the Wastewater Core Business and 2.5% to the Water Supply Core Business. The proposed effective date remains March 1, 2013.

#### **SUMMARY & RECOMMENDATIONS:**

After discussions with SAWS personnel and a comprehensive review of SAWS rate proposals, Staff makes the following recommendations for City Council consideration:

- ⇒ Approval of an 8.40% system-wide increase;
- ⇒ Concur with the proposed updates to the Drought Management Plan incorporating such changes as the revisions to irrigation times for Stages Two – Four, allowing home car washing on Saturday and Sunday, revising restrictions on fountains and other revisions;
- ⇒ Redirect a position(s) to a formal efficiency function, similar to the City’s Innovation and Reform Group that would focus on identifying efficiencies and making recommendations;
- ⇒ Develop and plan and begin to review level of resources and service delivery in areas such as the following to identify potential efficiencies and improvements; results of reviews undertaken must be presented to the City in conjunction with the submission of a rate request for 2014:
  - Public Affairs Department
  - Engineering Department
  - Customer Service Department
  - Fleet Replacement and Maintenance
- ⇒ Continue to comprehensively evaluate pension, health, and other benefits programs: include a potential audit of the eligibility of health plan dependents; provide recommendations with 2014 budget to address long-term strategy for managing these costs;
- ⇒ Implement accountability procedures for the SSO Program to include the following:

- Establish a cost center to track all costs including operations and maintenance expenses and capital improvements
  - Provide quarterly written progress reports which outline performance on the program to include operational statistics such as miles of lines cleaned and televised and financial information
- ⇒ Resume briefings to City Council every other month; agenda to be managed by the City and should be focused on financial performance and key policy issues; key policy issues include items such as water supply projects (Request for Competitive Sealed Proposal process), drought management plan, conservation initiatives, and rate structure; these key issues should be aligned from a policy perspective;
- ⇒ As part of rate structure review for future rate proposals, SAWS anticipates to begin a rate review with the Rates Advisory Committee in calendar year 2013; recommend inclusion of a policy discussion with City Council at the beginning of the process to provide input on various options; periodic updates to City Council on the rate structure review

### **REVIEW PROCESS:**

The Public Utilities Staff (“Staff”) of the Finance Department conducted a comprehensive review of the proposed rate adjustments. Staff was involved in the process as SAWS was developing its revenue requirements and rate models. The review included areas such as the Economic/Rate Model; Key Financial Targets; Revenue Requirements; Proposed Capital Plan; Operations and Maintenance Budget; Financing Plan; Affordability Programs; and Credit Considerations. The following sections offer a more detailed description of the areas included in the analysis.

### **Sales Forecast**

The projections for water consumption and the average winter consumption were reviewed taking into consideration factors such as use per bill, customer growth, historical trend patterns, and correlations to other factors such as annual rainfall. Water consumption is the estimated volume of water to be sold to SAWS customers and is utilized to project revenues for the Water Delivery and Water Supply Core Businesses. Average winter consumption is the average water usage between November 15<sup>th</sup> and March 15<sup>th</sup>. This calculation is meant to determine the volume of water utilized excluding irrigation which is then used as a basis for volumes entering the wastewater system. The average winter consumption is utilized to project revenues for the Wastewater Core Business.

For 2013, SAWS has projected 55,207,717,153 gallons of water to be sold and average winter consumption of 5,611 gallons. Public Utilities Staff reviewed these projections and conducted regression analysis. Based on this analysis, Staff believes the projections for water consumption and average winter consumption are reasonable. Attachment A provides additional information on historical usage, patterns, and a summary of the regression analysis performed by Staff.

## Operations & Maintenance (O&M) Budget

The SAWS planned O&M budget for FY2013 is \$243.9 million (after capitalization). This represents a \$13.6 million or 5.9% increase from last fiscal year's budget of \$230.3 million. Approximately \$11.7 million of this increase can be attributed to planned activities to address Sanitary Sewer Overflows (SSOs) which will be discussed in greater detail in a later section entitled, "SSO Initiative". The following Table I summarizes historical and projected O&M expenses. Attachment B provides O&M actual expenses by line item for 2009 through 2012 as well as the budget for 2012 and the proposed budget for 2013.

**Table I – O&M History and Projections**

	2008	2009	2010	2011	2012
	Actual	Actual	Actual	Actual	Projected
<b>O&amp;M Before Capitalization</b>	\$226,651,632	\$234,529,450	\$227,951,115	\$223,616,374	\$264,571,929
<b>Capitalization</b>	(\$29,326,109)	(\$32,872,914)	(\$32,035,170)	(\$30,362,079)	(\$34,236,184)
<b>O&amp;M After Capitalization</b>	\$197,325,523	\$201,656,536	\$195,915,945	\$193,254,295	\$230,335,745

	2013	2014	2015	2016	2017
	Forecast	Forecast	Forecast	Forecast	Forecast
<b>O&amp;M Before Capitalization</b>	\$278,273,567	\$308,864,031	\$318,493,945	\$329,503,963	\$346,304,898
<b>Capitalization*</b>	(\$34,336,580)	(\$35,366,678)	(\$36,427,678)	(\$37,520,508)	(\$38,646,124)
<b>O&amp;M After Capitalization</b>	\$243,936,987	\$273,497,353	\$282,066,267	\$291,983,455	\$307,658,774

\* Assumed capitalization for out-years same as 2013

\*\* Intercenter transfers to DSP (BexarMet)

Excluding rate increases, growth in the system is expected to produce increased revenues of approximately 1.6%. The growth in projected O&M expenses from 2013 to 2017 averages 6% annually; however, a significant portion of the increases in 2013 and 2014 result from the implementation of additional planned activities to address SSOs. The average annual growth in revenues and expenses inclusive of the SSO planned activities from FY 2013 – FY 2017 is \$7 million and \$15.9 million; respectively. As such, it is projected that future rate increases, cost reductions, or a combination of these will be necessary to cover the expected growth in operations and maintenance expenses. Following is a brief discussion on some of the key areas of the O&M budget and some high level benchmarking analysis.

### Personnel Positions

With respect to personnel positions, the following table summarizes authorized and filled positions from 2007 to 2012 and the projected number of positions for fiscal year 2013. As noted in Table II, the total number of authorized positions decreased slightly in 2012, however, employees from the District Special Project (formerly Bexar Metropolitan Water District) were absorbed by SAWS during 2012. These employees performed both SAWS and DSP tasks thus resulting in increased efficiencies for both organizations.

**Table II – Authorized and Filled Positions**

	2007	2008	2009	2010	2011	2012	2013
<b>Authorized Positions</b>	1,685	1,730	1,746	1,748	1,755	1,748	1,797
<b>Filled - Employed at Year End</b>	1,607	1,595	1,696	1,647	1,669	1,674	

Since the creation of the District Special Project (DSP), 77 employees from the DSP have been transitioned into SAWS. In addition to the transfer of these employees, efficiencies have been achieved as some management positions within the DSP have been eliminated and these responsibilities have been assumed by the management of SAWS. Table III below summarizes the savings realized by both SAWS and the DSP related to these positions since the creation of the DSP.

**Table III – SAWS / DSP Transition Benefits**

<b>SAWS</b>		
Salaries Allocated From SAWS to DSP		\$ 2,224,717
Direct labor charges - work crews		1,160,464
Other Shared Costs Allocated to DSP		2,905,337
<b>Total Benefit to SAWS Ratepayers</b>		<b>\$ 6,290,518</b>
<b>District Special Project</b>		
Employees Transferred to SAWS		\$ 2,732,976
Salaries Allocated From SAWS to DSP		(2,224,717)
Direct labor charges - work crews		(1,160,464)
<b>Net Benefit to DSP - Salaries</b>		<b>\$ (652,205)</b>
Reduction in O&M expenses - 2012		\$ 4,626,248
Shared Costs Allocated from SAWS		(2,905,337)
<b>Net Benefit -Other O&amp;M</b>		<b>\$ 1,720,911</b>
<b>Total Benefit to DSP Ratepayers</b>		<b>\$ 1,068,706</b>

### Performance Pay

The proposed budget includes a performance pay pool based on 2.5% of base salaries to become effective April 1, 2013 at an estimated cost of approximately \$1.6 million. Approximately 0.5% of the 2.5% will be utilized to give a one-time increase in salary to employees making less than \$50,000 in an effort to help offset the impact of accelerating the phase-in of increased employee contributions towards insurance premiums as described below. This amount represents funding for three-fourths of a year and the full cost will be realized in fiscal year 2014. For comparison purposes, CPI for calendar year 2012 was 1.6% through November, as reported by the Bureau of Labor Statistics.



### Health/Pension Benefits

SAWS offers its employees a comprehensive benefits program which includes health, dental, vision, long-term disability and life insurance. SAWS medical insurance includes several plan options (PPO Choice, PPO Economy, & HMO) for medical coverage. The plans differ in cost with the PPO Choice being the most expensive and offering the highest level of benefits to the employee and his or her family. A dental plan is also available to full-time employees and their dependents and it includes coverage for preventive, basic and major services as well as orthodontia for children. The vision insurance plan includes coverage for eye exams, lenses or contacts, frames and a variety of discounts on other eye care products.

The disability insurance program provides full-time employees with a percentage of their base salary if they are unable to work as a result of a non-work related injury or illness. Life and Accidental Death & Dismemberment insurance is offered to full-time employees in an amount that is equal to one times their annual salary. In addition to the basic life insurance, employees are eligible to buy additional voluntary life insurance for themselves in an amount equal to five times their annual salary. The cost of voluntary insurance coverage varies, based on age and amount of coverage.

In 2011, SAWS announced changes to its medical insurance and retirement plans that cover active employees in order to address escalating employee benefit costs. Current employees hired prior to January 1, 2011 were to pay 20% of the cost of medical insurance. This increase was to be phased in over eight years. Employees hired after January 1, 2011 were to pay 30% of the medical insurance cost beginning on January 1, 2012. SAWS also announced changes to health care insurance benefits offered to future retirees. Depending on the employee's hire date and the type of plan selected (HMO or PPO), the employee contribution rate was to range from 20% to 100%. During the SAWS 2012 rate discussion, Staff expressed concern that SAWS was lagging in managing the level of benefits being provided even with the proposed eight year phase-in. For their 2013 budget, SAWS has reduced the phase-in for the aforementioned benefit changes from eight years to four years and implemented additional changes to their health benefits plan designs for employees and retirees. These combined strategies resulted in projected savings to SAWS of \$1,011,452 in 2013.

SAWS provides pension benefits to its full-time employees through participation in the following two plans: Principal Retirement Plan and the Texas Municipal Retirement System (TMRS). Under the Principal Plan, SAWS contributes a targeted 6% of salary with no employee contributions. Under TMRS, SAWS targets a contribution of 3% of salary with employees matching the contribution at 3% of salary. Based on funding projections provided by Principal Financial Group, SAWS contribution to the Principal Plan will increase by approximately \$1.8 million as compared to the 2012 budget. Funding for the TMRS Plan will increase by approximately \$105,370 as compared to the prior year budget.

SAWS contributed \$8 million to an external trust prior to December 31, 2011 to address post-employment, or retirement medical benefits based on funds allocated in prior year budgets. SAWS contributed \$4 million to the trust in FY 2012 and plans to maintain the same level of contribution at \$4 million in 2013. The current Actuarially Required Contribution (ARC) is approximately \$20.7 million and would be equivalent to a 5.9% increase in rates to generate revenue to fully fund this requirement.

While SAWS has made progress in the area of health and pension benefits, Staff recommends that SAWS continue to comprehensively evaluate its pension and health benefits. Recommendations addressing the long-term strategy for managing these costs should be provided with the 2014 budget.

#### Other O&M Line Items

City & SAWS staff continued to review other areas of the O&M budget. As a result of the review, SAWS reduced portions of its O&M budget by approximately \$1.850 million. The reductions were made to several different line items and were largely a result of the re-projections of certain line items contained in the O&M budget.

#### Benchmarking

Staff used some common high level metrics taken from the CAFR's of six similar water and wastewater utilities to gauge SAWS' operational performance and efficiency, in relation to the other utilities. Since the service areas of each utility are different, it is difficult to make meaningful comparisons. For example, maintaining a mile of sewer mains in one city may be more expensive due to the type of terrain. However, the information is provided to show some context in relation to SAWS costs. See Table IV below.

**Table IV – Benchmarking**

	SAWS	Ft. Worth	Dallas	El Paso	Austin	Houston	Phoenix
Miles - W Main	4,988	3,480	5,166	2,530	3,657	7,500	6,962
Miles - WW Main	5,163	3,527	4,364	2,185	2,650	6,403	4,980
Total Miles of Main	<b>10,151</b>	<b>7,007</b>	<b>9,530</b>	<b>4,715</b>	<b>6,307</b>	<b>13,903</b>	<b>11,942</b>
Total W & WW Customers	765,400	436,275	589,766	408,669	387,000	854,549	795,914
O&M \$ (excl. depr.)	\$ 209,058,000	\$ 196,478,000	\$ 251,295,000	\$ 103,434,000	\$ 177,474,000	\$ 362,851,000	\$ 238,699,000
O&M per mile maintained	\$ 20,595	\$ 28,040	\$ 26,369	\$ 21,937	\$ 28,139	\$ 26,099	\$ 19,988
O&M Cost /Customer	\$ 273	\$ 450	\$ 426	\$ 253	\$ 459	\$ 425	\$ 300
Number of Employees	1,669	892	1,369	831	1,070	2,213	1,380
Number of FTE's per 1,000 cust.	2.18	2.04	2.32	2.03	2.76	2.59	1.73
Population	1,326,539	746,290	1,306,350	773,894	805,662	2,107,208	1,502,757
Number of FTE's per pop (000's)	1.26	1.20	1.05	1.07	1.33	1.05	0.92
Total Debt Coverage	1.57	1.77	1.58	1.88	1.83	1.56	1.8

\* W - Water; WW - Wastewater

\*\* SAWS includes GAAP adjustments, SAWS 2011 CAFR, Pg. 75, 76

Source: Most recent Comprehensive Annual Financial Reports

#### **Capital Outlay**

For 2013, SAWS is proposing to purchase \$8.5 million in capital outlay. The majority of the capital outlay is for the replacement of heavy equipment such as trucks, backhoes, trailers, and a crane. Attachment C includes a listing of the capital outlay proposed to be purchased in 2013.

SAWS originally proposed a capital outlay of \$10.5 million. SAWS has since indicated that this amount can be reduced by \$2 million based on their re-assessment of the condition of some of the equipment scheduled to be replaced for 2013. As such, Staff recommends that the fleet function be reviewed for potential efficiencies related to the size of the fleet, and criteria for replacement and/or maintenance of the fleet.

### **Capital Improvement Plan**

Capital requirements are a significant driver in the development of rates as funding is derived from the issuance of additional debt and equity contributions, both of which impact cash flows on an annual basis. Equity contributions include both cash funding from the Repair and Replacement Account and impact fees. Staff's review of the capital plan focused on the first 5 years (FY 2013 through FY 2017). Individual meetings with SAWS department heads and staff of each of the core business areas were conducted in order to obtain a greater understanding of the proposed capital plan, its development, as well as the prioritization of proposed projects.

All non-corporate SAWS capital projects are analyzed through an extensive prioritization process. These projects are reviewed by a CIP review team which consists of managers and directors from the submitting departments. The SAWS evaluation methodology is known as FMEA, which stands for Failure Modes and Effects Analysis. This evaluation methodology consists of reviewing the probability, impact, and cost of mitigation to ascertain the risk associated with each capital project. The team also examines whether a project can be executed efficiently and how the project can be funded, using impact fees, cash, bonds and low cost loans. The review team selects a final list of projects to be sent to the SAWS Executive Management Team (EMT) for consideration. The EMT then reviews and prioritizes all known requirements for the budget year to ensure the highest priority requirements are addressed in a timely and fiscally responsible manner. Corporate projects (i.e., I.T. equipment replacement, Customer Information Systems) are not scored but are reviewed by the EMT for funding consideration.

SAWS' five year \$1.8 billion capital plan includes \$490 million for water resource development (includes recycled), \$620 million for replacing aging infrastructure and \$274 million to develop additional capacity (collection and distribution). Table V below summarizes the five year plan. The proposed rates will provide sufficient funding for the 2013 capital plan which consists of \$350.2 million of capital improvement projects comprised of the following:

- ⇒ \$225.1 million in Water Delivery and Wastewater projects which consist of replacement, growth and governmental related projects at 77% and SSO related projects at 16%.
- ⇒ \$118.9 million in Water Supply & Recycled Water projects including funding for the purchase of additional Edwards Aquifer Groundwater Rights and the Brackish Water Desalination Project.
- ⇒ \$6.2 million in Chilled Water and Steam projects which include the replacement or adjustment of infrastructure to accommodate the Market Street realignment, the Hemisphere Park redesign, and the Convention Center expansion.

**Table V – 5-Year Capital Improvement Program**

	2013	2014	2015	2016	2017	Total
Wastewater	\$ 159,873,590	\$ 214,220,117	\$ 225,832,399	\$ 190,747,183	\$ 181,980,811	\$ 972,654,100
Water Delivery	\$ 65,206,249	\$ 66,313,981	\$ 80,435,266	\$ 60,173,552	\$ 90,512,610	\$ 362,641,658
Water Resources	\$ 118,901,425	\$ 142,822,430	\$ 116,518,683	\$ 51,871,122	\$ 60,121,078	\$ 490,234,738
Chilled Water & Steam	\$ 6,170,296	\$ 2,930,500	\$ 527,375	\$ 2,275,625	\$ 6,616,375	\$ 18,520,171
<b>Total</b>	<b>\$ 350,151,560</b>	<b>\$ 426,287,028</b>	<b>\$ 423,313,723</b>	<b>\$ 305,067,482</b>	<b>\$ 339,230,874</b>	<b>\$ 1,844,050,667</b>

Attachment D provides various documents relating to SAWS capital improvements program including the following: 5-Year Summary; 2013 CIP Detail; CIP 2013 through 2017; Pipe Diameter and Age of Pipe; and CIP Committed vs. Spent for a 5-Year Period.

With respect to the percentage of capital projects committed and/or spent, a review of the results of the prior five years indicate that system-wide actual expenditures on CIP projects, on a five year average basis, are equal to 67.5% of the total budgeted CIP dollars. An examination of the Water Supply Business reveals that the percentage of Actual expense to the Budgeted amount is 49.5%, which is much lower than the other business units. However, the unique operating characteristics of this business unit make attaining a high actual expenditure to budget ratio difficult to achieve. Water supply projects take several years to complete and these projects may face legal and regulatory hurdles.

#### SSO Initiative

SAWS intends to take a comprehensive approach to address sanitary sewer overflows that occur within its 5,200 mile collection system. According to SAWS personnel, the most common cause of SSOs for San Antonio is grease and debris accumulation within the collection system which accounts for approximately 70% of all SSOs. The remaining 30% of SSOs are caused by collection system structural defects, capacity constraints or other issues.

Approximately 80% of SAWS SSOs occur on small diameter (<24") mains. SAWS' Sewer Management Program to address SSOs includes increasing the amount of small pipeline cleaning from an estimated 1,100 miles in FY 2012 to 1,500 miles in FY 2013. This increase in the volume of cleaning is expected to result in additional cost of \$2.2 million. SAWS will also increase the amount of large pipeline cleaning from an estimated 27 miles in FY 2012 to 38 miles in FY 2013 with an expected increase in cost of \$1.6 million. In addition, SAWS anticipates spending an additional \$1.5 million to increase siphon cleaning from 14 in FY 2012 to 30 in FY 2013. SAWS will continue to clean all lift stations at a minimum of every six weeks with the exception of the Acequia station which will be cleaned as needed with specialized tools. SAWS does not expect to incur additional cost in FY 2013 as a result of the cleaning of these lift stations.

During FY 2013, SAWS will continue to perform assessments to document the condition of its sanitary sewer system. These assessments will include increasing the video taping of pipes from an estimated 265 miles in FY 2012 to 550 miles in FY 2013 with an expected additional cost of \$1.9 million. Also, pole cams (photography through a manhole) will be used to assess 50 miles

of pipeline at an estimated additional cost of \$130,000. The physical inspection of manholes will be increased from an expected 2,100 in FY 2012 to 5,400 in FY 2013 resulting in an estimated additional cost of \$171,000. In addition, SAWS anticipates conducting a physical inspection of 5 miles of Force Mains in FY 2013 at estimated additional cost of \$45,000. SAWS will continue to use a process known as proofing during which a device is pushed through pipes to ensure the lines are clean and free of obstructions. This activity is not expected to result in any additional incremental cost.

Since grease in sanitary sewer systems contributes to SSOs, SAWS will continue the inspection of 3,800 food establishments in FY 2013 as part of its Fats, Oils & Grease (FOG) program at no expected incremental cost. SAWS will also enhance its capacity modeling and capacity constraint program. Flow Meters that capture rainfall data used to create computer models to gauge system performance will be increased from 48 in FY 2012 to 200 in FY 2013 at an additional cost of \$960,000. A new program to investigate each SSO associated with rainfall events will be implemented at an expected cost of \$75,000. This program is anticipated to cover 15 rainfall events. The use of smart covers, manhole lids that sound an alarm when water levels exceed set points, will be expanded from 120 in FY 2012 to 188 in FY 2013 at an additional cost of \$300,000.

A new program that assesses the system during rainfall events by physical investigation, flow metering, and high water line chalking will be implemented in FY 2013. This program requires the standby and rapid response of contractors during rainfall events of a defined volume. This program is expected to cover 7 rainfall events at a total cost of \$100,000.

SAWS expects to hire a consultant to serve as a Program Manager for technical support on sewer spill reduction strategies and to provide staffing support to meet program requirements. The Program Manager is expected to cost \$1,866,000 in FY 2013. Additional resources are also expected to be needed (see Table VI) in the form of SAWS employees or as contract employees. The annual cost of these positions is estimated at \$1,274,000.

**Table VI – SSO Staffing**

<b>Hiring of Additional SAWS or Project Manager Positions Needed:</b>	
Engineering Construction Inspectors	2
Data Analysts / Reporting	1
Engineer for Contract Cleaning and CCTV Programs	1
Additional Utility Workers for Cleaning and CCTV	6
Engineer for Lift Stations	1
Flow Meter Modeler	1
Smart Cover Program Utility Workers	2
Additional GIS Staff	2
Additional IT Staff Support	5
<b>Total Additional Proposed</b>	<b>21</b>
<b>Total Additional Costs</b>	<b>\$ 1,274,000</b>

Table VII identifies the historical O&M expenditures that SAWS has incurred to reduce SSOs since 2007 in addition to the amount budgeted for FY 2013. The bulk of the historical expenditures pertained to main repairs, lift station maintenance/repairs, and system televising. These expenditures along with additional consulting support for program management, sewer assessment, and system cleaning comprise the bulk of the FY 2013 budget.

**Table VII – SSO O&M Cost**

SSO Initiative '07-'13	Actuals-2007	Actuals-2008	Actuals-2009	Actuals-2010	Actuals-2011	2012-Projected	Budget-2013
Main Repairs	4,647,836	4,462,080	6,601,552	5,547,859	5,969,290	6,285,283	6,524,254
Lift Station Maintenance and Operations	1,943,331	2,273,510	1,995,535	2,210,310	2,853,247	3,313,798	2,793,543
Concrete & Asphalt for Site Restorations	384,349	255,981	221,439	249,311	219,747	291,886	267,352
Edwards Aquifer Recharge Zone Televising	343,518	448,331	1,082,434	2,113,200	2,712,144	733,855	769,491
Collection PM Televising	2,615,625	2,749,765	5,022,979	3,618,595	4,626,559	5,323,202	4,837,463
Sewer Lateral Inspections	124,788	157,875	117,027	67,091	192,937	126,542	110,000
Internal Data Management	-	-	449,336	427,465	734,670	852,108	899,596
Fats Oils and Grease (FOG) Program	-	-	-	-	-	88,134	239,110
Program Manager Technical Support	-	-	-	-	-	-	1,314,814
Contractual Service - Sewer Assessments	-	-	-	-	-	-	3,885,253
Contractual Service - System Cleaning	-	-	-	-	-	-	7,064,599
<b>Total</b>	<b>10,059,447</b>	<b>10,347,542</b>	<b>15,490,302</b>	<b>14,233,831</b>	<b>17,308,595</b>	<b>17,014,808</b>	<b>28,705,475</b>

### Economic/Rate Model

SAWS uses a comprehensive Cash Flow Model (“Model”) to develop financial forecasts of revenues, operations and maintenance expense, capital expenditures, capital financing including cash and debt financing, and rate requirements. The Model incorporates 20-year financial forecasts and requirements by each core business unit – Water Delivery, Wastewater, Water Supply, and Chilled Water and Steam.

The structure of the Model, which includes the calculation of the flow of funds and rate adjustment requirements, is based on the enabling ordinance of SAWS. In addition to structure under the ordinance, SAWS leadership team has developed key financial targets and policies that are designed to assist SAWS in maintaining a strong financial position, attaining its long-term financial goals, meeting the capital and maintenance requirements of four core business units, and maintaining a strong credit rating. Credit ratings are an important factor due to the level of projected capital funding required and the impact on the overall cost of borrowing.

The financial targets include such items as: Debt Service, Debt Service Coverage, Days Cash on Hand, Debt per customer, etc. Attachment E includes graphs for selected key financial measures. Financial targets were evaluated in terms of SAWS’ cash flow and system requirements. In reviewing the sufficiency of SAWS’ key financial targets, Staff reviewed several documents/items including the most recent rating agency reports for SAWS senior lien and junior lien debt, respectively, and the “2012 Water and Sewer Medians”, a report by Fitch Ratings in December 2011. This report compares the recent financial performance of Water and Sewer Utilities among various categories utilizing different financial ratios.

The analysis indicates that the current rate request will begin to maintain or slightly improve key SAWS financial measures during the next several years. With the large capital program SAWS

has planned over the next several years, strong financial measures will be essential to ensure the lowest possible financing costs along with adequate debt capacity. The proposed rate model also plans for all obligations in the flow of funds (outlined in SAWS bond ordinances) to be met as required. As discussed in the Summary and Recommendations section, it is recommended that further policy discussion occur on topics such as the Drought Management Plan, the Water Management Plan and the SAWS Business Model to ensure that these policies/ models comprehensively align. As policy decisions and direction is taken in these areas, it could have significant impact on this model.

#### Rate Structure Review

In 2008, SAWS engaged Raftelis Financial Consultants, Inc. (RFC), to work with SAWS staff to conduct a Comprehensive Cost of Service (COS) and Rate Design Study (rate study). SAWS' policy is to perform rate studies once every five years. The purpose of the COS and rate study was to provide SAWS with information concerning the rate structure for Water Delivery, Water Supply, Recycled Water and Wastewater. In addition, the study assisted staff in determining the effectiveness of existing rate structures and identifying opportunities for improvement and developing viable rate structure alternatives. Beginning in August 2008, SAWS staff conducted a series of sixteen public meetings with the Rates Advisory Committee (RAC), an advisory group appointed by the SAWS Board of Trustees, to gather input for RFC to use in the rate design process. In December 2009, this process was concluded with the delivery of the updated Comprehensive Cost of Service and Rate Design Study by RFC.

In June 2010, the Council approved a new SAWS rate structure that reduced rates for lower water usage while increasing rates for higher water usage. A tiered Water Supply Fee was implemented for residential and commercial customers. High discretionary water use was discouraged by implementing higher rates in the third and fourth blocks of the SAWS rate structure. The 2012 rate request does not include any changes to the existing rate structure. As part of the rate structure review for future rate proposals, a policy discussion on options should occur at the beginning of the process with the City Council and periodic updates should be provided to the City Council as the process continues.

#### Rate Plan and Customer Bill Impact

The proposed rate adjustments as requested by SAWS will have a combined effect of an overall increase of 8.4% in system wide revenues for Wastewater and Water Supply Fee rates. If the proposed rate increase is approved, the average residential customer using 7,788 gallons would pay \$50.33 per month, an increase of \$3.88 per month from the existing rate structure. Specific percentage increases for each of the core businesses include the following: 2.5% for Water Supply and 16.5% for Wastewater. The increases are requested to become effective March 1, 2013. Please see the proposed residential bill impact and associated multi-year rate plan in Attachment F.

The EAA fee which is assessed to cover the operating expenses of the Edwards Aquifer Authority is projected to decrease by \$.37, from \$3.04 to \$2.67. This decrease became effective on January 1, 2013.

## Affordability Program Update

The proposed rate adjustments would equate to an estimated \$3.88 increase per month resulting in an average residential customer bill of \$50.33. In addition, SAWS is proposing to increase the funding for the Affordability Discount Program (ADP) by 20.0% from \$1.75 million to \$2.1 million. The ADP is a discount taken off each monthly bill and it is available for those customers who have income at or below 125% of Federal Poverty guidelines and meet one of the following criteria: are elderly; are disabled; or have children under the age of 18 years.

Qualifying water and sewer customers would recognize a discount ranging from \$5.17 to \$12.97 based on a sliding scale. Also, qualifying customers who have only water or only sewer service with SAWS could recognize a discount ranging from \$3.50 to \$6.68 based on a sliding scale. The program currently has approximately 19,200 customers who receive the ADP. SAWS and the City will continue to work together to increase awareness and participation in the program. Please see Attachment G for a summary of the ADP.

This discount is in addition to the following programs which provide assistance to qualifying customers who need help paying their SAWS bill: Project Agua – Payment Assistance, Senior Citizen Billing Program and Disability Billing program. Project Agua offers an annual one-time assistance with bills. During 2011, this program assisted 625 residents at an annual total of \$26,153. The Senior Citizen Billing Program grants residential customers 60 years of age and older additional time to pay their bill without incurring penalties. This program assisted 22,794 customers in 2011. The Disability Billing program grants disabled, residential customers receiving Supplemental Security Income (SSI) for a disability an additional ten (10) days to pay their bill without incurring penalties. This program assisted 4,544 customers in 2011.

### **FISCAL IMPACT:**

The City receives 2.7% of gross revenues from SAWS. If the new rates become effective March 1, 2013, additional revenue of approximately \$447,906 will be generated for the remainder of the City's FY 2012-2013. On an annual basis, City payment would increase by approximately \$767,838 beginning in FY 2013-2014.

The City's utility expenses would also increase for FY 2012-2013 in the amount of approximately \$67,000. On an annual basis, the City's utility expenses will increase by approximately \$115,000 beginning in FY 2013-2014.

### **CONCLUSION:**

Based on the analysis outlined above, Staff's professional recommendation is for approval of the overall 8.4% system wide increase applied to each business unit as follows: 2.5% for Water Supply; and 16.5% for Wastewater. There is no proposed rate increase for the Water Delivery business unit.

Please contact me if you should have any questions or require additional information.



# ATTACHMENT A

## Consumptions with irrigation

CY	Residential (excl muni)	Commercial (excl Muni)	Apartment	Industrial (Incl Eco-Dev)	Whole (incl Inter-Connect)	Municipal	Total	ACFT	Avg. Winter Consumption	CY Rainfall (in)
1996	29,488,376,249	12,545,375,165	8,403,382,613	1,164,361,429	465,782,770	999,352,377	53,066,630,603	162,856	8,674	17.8
1997	27,814,600,139	12,057,840,639	8,390,419,536	1,855,807,181	461,460,248	838,070,995	51,418,198,739	157,797	7,348	33.93
1998	29,708,211,064	11,439,638,479	8,307,742,516	2,976,092,168	534,068,590	909,191,365	53,874,944,182	165,336	7,037	42.09
1999	30,537,935,366	13,311,919,571	8,141,728,653	2,734,937,645	607,576,148	1,043,407,986	56,377,505,368	173,016	7,888	16.63
2000	30,169,553,929	12,170,211,992	7,926,065,637	2,741,937,616	557,503,571	987,294,502	54,552,567,246	167,416	7,552	35.85
2001	29,002,772,027	12,371,047,344	7,718,029,131	2,670,049,811	531,215,334	946,333,956	53,239,447,603	163,386	6,495	36.72
2002	28,371,735,972	11,942,411,615	7,791,450,454	2,696,447,020	172,894,892	875,838,231	51,850,778,184	159,124	6,910	46.27
2003	27,759,630,049	11,730,580,891	7,793,853,188	2,473,091,827	136,401,076	682,800,721	50,576,357,752	155,213	6,369	28.45
2004	27,172,529,282	11,746,239,495	7,663,299,245	2,088,908,204	98,500,833	595,786,968	49,365,264,027	151,496	6,690	45.33
2005	31,114,072,331	12,990,542,146	8,003,535,603	2,122,448,805	121,426,358	652,489,217	55,004,514,460	168,803	6,178	16.54
2006	33,373,607,625	13,089,268,168	8,102,477,776	2,137,979,365	398,025,861	622,649,020	57,724,007,815	177,148	7,314	21.34
2007	26,781,567,350	12,037,983,072	7,843,487,243	2,178,281,558	90,238,067	579,962,427	49,511,519,717	151,945	6,214	47.25
2008	33,236,747,913	14,212,377,042	8,419,608,011	2,051,427,910	107,526,662	800,007,118	58,827,694,656	180,536	6,581	13.76
2009	32,088,266,197	13,280,098,531	8,124,519,924	2,327,119,488	118,820,729	657,380,302	56,596,205,171	173,687	6,855	30.69
2010	29,467,883,815	12,865,664,820	8,319,478,496	2,135,053,540	101,387,005	568,323,450	53,457,791,126	164,056	5,642	37.29
2011	34,473,336,270	12,904,292,384	8,646,481,282	2,217,316,861	128,297,654	556,712,161	58,926,436,612	180,839	6,042	17.5
2012 Actual	30,844,186,650	12,205,220,882	8,433,516,286	2,114,590,623	240,169,222	520,669,710	54,358,353,373	166,820	5,596	39.23
2013 Re-Est.	31,669,489,003	12,356,886,459	8,550,268,300	2,002,267,871	101,557,970	527,247,550	<b>55,207,717,153</b>	169,426	5,611	

### Multi-variables Regression Results for 2013

Model:	Description:		
1.0)	Linear Regression		171,509
2.1)	MV Regression: Customer №, Average Annual Rain Fall	55,886,366,491	170,806
2.2)	MV Regression: Customer №, Maximum Annual Rain Fall	55,657,340,883	161,599
3.1)	MV Regression: Customer №, Average Non-Winter (Mar-Nov) Rain Fall	52,657,327,759	169,142
3.2)	MV Regression: Customer №, Maximum Non-Winter (Mar-Nov) Rain Fall	55,115,218,580	157,831
4.1)	MV Regression: Customer №, Average Summer (May-Oct) Rain Fall	51,429,295,026	170,886
4.2)	MV Regression: Customer №, Maximum Summer (May-Oct) Rain Fall	55,683,251,052	158,337
5.1)	MV Regression: By class, Customer №, Average Annual Rain Fall	51,594,289,508	171,392
5.2)	MV Regression: By class, Customer №, Maximum Annual Rain Fall	55,848,104,060	161,740
		52,703,220,049	

\* El Niño weather pattern considered as Maximum (Annual, Summer, Non-winter) Rain Fall

Normal Weather Average:	<b>55,638,056,213</b>
Average:	54,063,823,712
El Niño Weather Average:	52,096,033,086

Variance	<b>0.78%</b>
	-2.07%
	-5.64%

**Attachment B**

	2009 A	2010 A	2011 A	2012 A*	2012 B	2013 B
<b>Salaries and Fringe Benefits</b>						
511100-0-Salaries	\$ 76,072	\$ 79,363	\$ 79,872	\$ 80,769	\$ 81,152	\$ 82,734
511100-0-Salaries		\$ 79,363	\$ 79,872	\$ 80,769	\$ 85,284	\$ 86,327
511102-0-Salary Adjustments		\$ -	\$ -	\$ -	\$ 1,656	\$ 1,682
511103-0-Part Time Salaries		\$ -	\$ -	\$ -	\$ -	\$ 289
511104-0-Salaries - Internship Program		\$ -	\$ -	\$ -	\$ -	\$ 148
511105-0-Temporary Employees		\$ -	\$ -	\$ -	\$ -	\$ -
511135-0-Turnover		\$ -	\$ -	\$ -	\$ (5,789)	\$ (5,712)
511140-0-Overtime Pay	\$ 3,476	\$ 2,362	\$ 3,222	\$ 3,070	\$ 2,341	\$ 2,398
511150-0-On-Call Pay	\$ 527	\$ 387	\$ 333	\$ 405	\$ 323	\$ 340
511160-0-Employee Insurance	\$ 11,334	\$ 13,133	\$ 15,450	\$ 14,358	\$ 15,495	\$ 14,677
511162-0-Retirement	\$ 15,219	\$ 17,598	\$ 19,439	\$ 20,074	\$ 20,182	\$ 22,181
511164-0-Unused Sick Leave Bonus	\$ 38	\$ 28	\$ 29	\$ 33	\$ 75	\$ 35
511166-0-Personal Leave Bonus	\$ 846	\$ 823	\$ 851	\$ 874	\$ 850	\$ 887
511168-0-Accrued Vacation leave	\$ 1,088	\$ (193)	\$ 1,176	\$ 876	\$ 1,119	\$ 1,169
511170-0-Incentive Pay	\$ 64	\$ 288	\$ 319	\$ 287	\$ 248	\$ 296
511175-0-Other Post Employment Benefits		\$ -	\$ -	\$ 4,033	\$ 4,000	\$ 4,000
511199-0-Unfunded OPEB		\$ -	\$ -	\$ -	\$ -	\$ -
<b>Salaries and Fringe Benefits Total</b>	<b>\$ 108,664</b>	<b>\$ 113,790</b>	<b>\$ 120,690</b>	<b>\$ 124,779</b>	<b>\$ 125,785</b>	<b>\$ 128,718</b>
<b>Contractual Services</b>						
511210-0-Operating Expense	\$ 2,972	\$ 1,971	\$ 1,951	\$ 2,092	\$ 1,948	\$ 1,808
511211-0-Rental of Facilities	\$ 283	\$ 228	\$ 336	\$ 255	\$ 300	\$ 237
511212-0-Alarm and Security	\$ 1,339	\$ 1,587	\$ 1,838	\$ 1,606	\$ 1,545	\$ 1,576
511213-0-Collection Expense	\$ 245	\$ 210	\$ 189	\$ 160	\$ 217	\$ 82
511214-0-Uniforms and Shoe Allowance	\$ 86	\$ 67	\$ 62	\$ 88	\$ 93	\$ 258
511216-0-Catering Svcs & Luncheons	\$ 169	\$ 88	\$ 113	\$ 89	\$ 126	\$ 92
511219-0-Program Rebates	\$ 918	\$ 842	\$ 400	\$ 404	\$ 1,004	\$ 935
511220-0-Maintenance Expense	\$ 9,562	\$ 8,407	\$ 10,141	\$ 9,395	\$ 8,776	\$ 9,317
511221-0-Street Cut Permit Admin Fee	\$ 1,154	\$ 796	\$ 692	\$ 602	\$ 886	\$ 886
511222-0-St Pave/Repair Fee	\$ 1,061	\$ 821	\$ 4,652	\$ 986	\$ 2,198	\$ 1,002
511223-0-Preventive Maintenance	\$ 49	\$ 53	\$ 61	\$ 65	\$ 67	\$ 67
511224-0-Corrective Maintenance	\$ 1,036	\$ 966	\$ 1,120	\$ 1,283	\$ 1,025	\$ 1,050
511225-0-Damage Repair	\$ 226	\$ 136	\$ 227	\$ 133	\$ 100	\$ 175
511230-0-Equipment Rental Charges	\$ 139	\$ 452	\$ 535	\$ 540	\$ 358	\$ 340
511240-0-Travel	\$ 242	\$ 79	\$ 184	\$ 172	\$ 176	\$ 165
511245-0-Training	\$ 821	\$ 573	\$ 639	\$ 614	\$ 661	\$ 542
511247-0-Conferences	\$ 104	\$ 23	\$ 55	\$ 40	\$ 87	\$ 44
511250-0-Memberships and Subscriptions	\$ 392	\$ 283	\$ 416	\$ 395	\$ 410	\$ 346
511260-0-Utilities	\$ 22,617	\$ 22,456	\$ 24,930	\$ 23,319	\$ 23,192	\$ 24,368
511261-0-Water Options	\$ 14,753	\$ 14,770	\$ 15,069	\$ 15,406	\$ 15,651	\$ 16,789
511265-0-Ground Water District Pay	\$ 7,198	\$ 7,708	\$ 7,261	\$ 19,471	\$ 21,732	\$ 21,351
511270-0-Mail and Parcel Post	\$ 1,850	\$ 1,884	\$ 2,000	\$ 1,990	\$ 1,838	\$ 2,082
511280-0-Telemetering Charges	\$ 43	\$ 47	\$ 46	\$ 45	\$ 50	\$ 50
511309-0-Educational Assist-Books	\$ 20	\$ 15	\$ 18	\$ 8	\$ 15	\$ 15

511310-0-Educational Assistance	\$ 175	\$ 216	\$ 207	\$ 140	\$ 200	\$ 210
511312-0-Contractual Prof Svcs	\$ 13,671	\$ 10,953	\$ (14,644)	\$ 10,886	\$ 12,493	\$ 22,983
511313-0-Inspect & Assessment Fees	\$ 539	\$ 1,489	\$ 1,466	\$ 1,497	\$ 1,605	\$ 1,646
511315-0-Temporary Employees	\$ 1,422	\$ 280	\$ 614	\$ 799	\$ 554	\$ 468
511320-0-Legal Services	\$ 2,697	\$ 1,556	\$ 2,162	\$ 3,310	\$ 3,192	\$ 3,287
511330-0-Revenue Recovery Expense	\$ 33	\$ -	\$ -	\$ -	\$ -	\$ -
511370-0-Communications	\$ 1,071	\$ 1,001	\$ 1,014	\$ 963	\$ 1,231	\$ 1,138
511381-0-Software and Hardware Maintenance	\$ 2,225	\$ 2,755	\$ 3,145	\$ 3,413	\$ 3,235	\$ 3,434
<b>Contractual Services Total</b>	<b>\$ 89,112</b>	<b>\$ 82,713</b>	<b>\$ 66,900</b>	<b>\$ 100,165</b>	<b>\$ 104,965</b>	<b>\$ 116,743</b>
<b>Materials and Supplies</b>						
511410-0-Small Tools	\$ 749	\$ 505	\$ 850	\$ 716	\$ 519	\$ 578
511415-0-Expensed Asset	\$ 463	\$ -	\$ -	\$ -	\$ -	\$ -
511417-0-Copy and Printing Expense	\$ 249	\$ 18	\$ 19	\$ 10	\$ 24	\$ 25
511420-0-Operating Materials	\$ 2,351	\$ 2,245	\$ 3,071	\$ 2,734	\$ 2,307	\$ 2,466
511421-0-Heating Fuel	\$ 49	\$ 85	\$ 80	\$ 44	\$ 77	\$ 77
511422-0-Chemicals	\$ 5,925	\$ 5,666	\$ 6,314	\$ 6,602	\$ 6,329	\$ 6,479
511425-0-Education of School Children	\$ 15	\$ 31	\$ 34	\$ 50	\$ 25	\$ 25
511427-0-Enforcement	\$ 3	\$ 10	\$ 35	\$ 33	\$ 214	\$ 120
511428-0-Program Materials	\$ 2,147	\$ 1,618	\$ 1,620	\$ 1,333	\$ 1,572	\$ 864
511430-0-Maintenance Materials	\$ 7,483	\$ 6,315	\$ 7,834	\$ 7,352	\$ 6,070	\$ 6,344
511440-0-Safety Materials & Supplies	\$ 955	\$ 697	\$ 914	\$ 728	\$ 741	\$ 748
511441-0-Inventory Variances	\$ 46	\$ (21)	\$ (8)	\$ 8	\$ 20	\$ 19
511450-0-Tires and Tubes	\$ 332	\$ 454	\$ 572	\$ 652	\$ 416	\$ 501
511451-0-Motor Fuel & Lubricants	\$ 2,001	\$ 2,694	\$ 3,533	\$ 3,705	\$ 3,045	\$ 3,204
<b>Materials and Supplies Total</b>	<b>\$ 22,768</b>	<b>\$ 20,317</b>	<b>\$ 24,867</b>	<b>\$ 23,967</b>	<b>\$ 21,359</b>	<b>\$ 21,450</b>
<b>Other Charges</b>						
511510-0-Judgements and Claims	\$ 533	\$ 655	\$ 685	\$ 2,439	\$ 474	\$ 621
511511-0-AI & GI Claims CI Adjust	\$ 23	\$ 677	\$ 492	\$ (292)	\$ 500	\$ 482
511520-0-Bank Charges	\$ 958	\$ 829	\$ 830	\$ 881	\$ 979	\$ 830
511530-0-Employee Relations	\$ 279	\$ 285	\$ 310	\$ 271	\$ 280	\$ 270
511540-0-Retiree Insurance	\$ 5,092	\$ 6,162	\$ 6,840	\$ 14,721	\$ 7,901	\$ 6,824
511570-0-Casualty Insurance	\$ 1,206	\$ 1,155	\$ 1,147	\$ 1,218	\$ 1,250	\$ 1,414
511580-0-Unemployment Compensation	\$ 69	\$ 23	\$ 50	\$ 75	\$ 42	\$ 42
511590-0-Workers Comp Medical	\$ 973	\$ 585	\$ 813	\$ 479	\$ 600	\$ 600
511600-0-WC-Contigent Liab Adjust	\$ 81	\$ 408	\$ (288)	\$ (309)	\$ 120	\$ -
511610-0-Workers Comp Benefits	\$ 288	\$ 305	\$ 253	\$ 62	\$ 276	\$ 250
511620-0-WC-Misc Claims Expense	\$ 84	\$ 48	\$ 27	\$ 35	\$ 40	\$ 30
511650-0-Expensed CIP Projects	\$ 689	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Other Charges Total</b>	<b>\$ 10,275</b>	<b>\$ 11,133</b>	<b>\$ 11,159</b>	<b>\$ 19,580</b>	<b>\$ 12,463</b>	<b>\$ 11,363</b>
<b>Total O&amp;M Before Capitalized Cost</b>	<b>\$ 230,819</b>	<b>\$ 227,953</b>	<b>\$ 223,615</b>	<b>\$ 268,492</b>	<b>\$ 264,572</b>	<b>\$ 278,274</b>
<b>Capitalized Cost and Transfer</b>	<b>\$ (32,873)</b>	<b>\$ (32,035)</b>	<b>\$ (30,362)</b>	<b>\$ (32,350)</b>	<b>\$ (34,236)</b>	<b>\$ (34,337)</b>
<b>GRAND TOTAL</b>	<b>\$ 197,946</b>	<b>\$ 195,918</b>	<b>\$ 193,253</b>	<b>\$ 236,142</b>	<b>\$ 230,336</b>	<b>\$ 243,937</b>

\*Preliminary Unaudited

## Attachment C

	2013-Budget 8.4%
Automobiles and Trucks	\$ 4,230,000
Communications Equipment	\$ 280,500
Computer Equipment	\$ 1,600,000
Heavy Equipment	\$ -
Lab Equipment	\$ 242,000
Light Equipment	\$ 94,300
Machinery and Equipment	\$ 210,000
Miscellaneous Equipment	\$ 485,650
Pumping Equipment	\$ 739,000
Software Systems	\$ 590,000
<b>Grand Total</b>	<b>\$ 8,471,450</b>

## **Attachment D**

List of CIP Documents

Document 1: 5-Year Summary

Document 2: 2013 CIP Detail

Document 3: CIP 2013 through 2017

Document 4: Pipe Diameter

Document 5: CIP Committed vs. Spent

# Attachment D

## Document 1

### SAN ANTONIO WATER SYSTEM

### CAPITAL IMPROVEMENTS PROGRAM (CIP) PROJECTIONS

Row Labels	Values					Sum of Total Years 2013-2017
	Sum of 2013	Sum of 2014	Sum of 2015	Sum of 2016	Sum of 2017	
Water Delivery	65,206,249	66,313,981	80,435,266	60,173,552	90,512,610	362,641,658
Corporate - WD	8,949,700	9,527,100	11,721,220	-	-	30,198,020
Distribution Growth	5,969,628	6,778,116	5,441,071	4,102,542	34,738,463	57,029,820
Governmental	16,548,284	24,250,800	28,870,000	17,322,000	17,322,000	104,313,084
Main Replacements	11,681,957	11,366,991	9,389,141	21,772,006	11,387,907	65,598,002
Production Growth	-	1,890,264	11,029,206	3,050,116	19,685,068	35,654,654
Production R&R	22,056,680	12,500,710	13,984,628	13,926,888	7,379,172	69,848,078
Wastewater	159,873,589	214,220,116	225,832,398	190,747,182	181,980,810	972,654,095
Collection Growth	14,859,330	29,792,390	18,988,182	46,754,133	38,955,265	149,349,300
Collection R&R	22,500,777	26,156,958	46,059,024	33,866,282	46,574,654	175,157,695
Corporate - WW	8,790,825	9,357,975	11,513,145	-	-	29,661,945
Governmental	18,693,264	23,820,300	28,357,500	15,880,200	15,880,200	102,631,464
Main Replacements - Sewer	78,128,322	82,612,958	71,254,893	81,712,552	66,959,091	380,667,816
Treatment Growth	-	-	31,760,400	-	-	31,760,400
Treatment R&R	16,901,071	42,479,535	17,899,254	12,534,015	13,611,600	103,425,475
Water Resources	118,901,425	142,822,430	116,518,683	51,871,122	60,121,078	490,234,738
Edwards	11,046,672	11,046,672	11,046,672	11,046,672	11,046,672	55,233,360
Recycled Water	2,749,583	3,661,505	2,763,400	11,744,450	2,901,570	23,820,508
Regional Carrizo	1,138,354	-	-	-	-	1,138,354
Desalination	98,150,816	-	-	-	15,565,942	113,716,758
Integration	5,816,000	97,526,515	64,781,824	-	-	168,124,339
ASR	-	581,600	-	-	-	581,600
Local Carrizo	-	-	-	-	-	-
LCRA	-	-	-	-	-	-
RFCSP	-	29,080,000	29,080,000	29,080,000	29,080,000	116,320,000
Expanded Carrizo	-	926,138	8,846,787	-	1,526,894	11,299,819
Heating & Cooling	6,170,296	2,930,500	527,375	2,275,625	6,616,375	18,520,171
Heating & Cooling Growth	-	-	-	-	-	-
Heating & Cooling R&R	6,170,296	2,930,500	527,375	2,275,625	6,616,375	18,520,171
Grand Total	350,151,559	426,287,027	423,313,722	305,067,481	339,230,873	1,844,050,662

# Attachment D

## Document 2

Category	Project Title	Phase	Programmed Amount
<b>Heating &amp; Cooling</b>			
<i>Heating &amp; Cooling Infrastructure</i>			
	Chilled Water Distribution Loop Isolation Valves/Meter Upgrades	Design	\$93,025
	Heating and Cooling Governmental Projects	Construction	\$5,952,271
	Heating and Cooling System Infrastructure 2013	Construction	\$125,000
		<b>Total</b>	<b>\$6,170,296</b>
	<b>TOTAL HEATING &amp; COOLING</b>		<b>\$6,170,296</b>
<b>Wastewater</b>			
<i>Corporate</i>			
	Service Center Facility Project Plan - WW Share	Acquisition	\$6,238,650
	IBM Mainframe Upgrade - WW Share	Acquisition	\$567,150
	ERSS Customer Information System - WW Share	Acquisition	\$567,150
	CIP Program Management Software	Acquisition	\$1,417,875
		<b>Total</b>	<b>\$8,790,825</b>
<i>Collection Growth</i>	W-6: Western Watershed Sewer Relief Line – Project 2	Construction	\$14,745,900
	Sewer Main Oversizing 2013	Construction	\$113,430
		<b>Total</b>	<b>\$14,859,330</b>
<i>Collection R&amp;R</i>	C-12 Donaldson Terrace	Design	\$1,459,512
	C-13 Broadway Corridor: N New Braunfels to Commerce	Construction	\$8,507,250
	C-33 Broadway Corridor: Carnahan to Mulberry	Construction	\$9,074,400
	LS 11 and LS 111 Elimination	Construction	\$3,119,325
	Lift Stations 251, 267, 225 & 175 Elimination	Acquisition	\$340,290
		<b>Total</b>	<b>\$22,500,777</b>
<i>Governmental Sewer</i>	Governmental Sewer Adjustments	Construction	\$2,245,914
	Governmental Sewer Installations	Construction	\$7,372,950
	Governmental Sewer Replacements	Construction	\$9,074,400
		<b>Total</b>	<b>\$18,693,264</b>
<i>Main Replacement - Sewer</i>	Main Replacements - Sewer - SAWS Crews	Construction	\$3,771,548
	Sanitary Sewer Overflow Rehabilitation 2013	Construction	\$20,417,400
	Small Diameter Rehabilitation Program	Construction	\$27,600,308
	Large Diameter Rehabilitation Program	Construction	\$2,552,175
	Capacity Program	Construction	\$2,835,750
	Manhole Rehabilitation Program	Construction	\$1,951,616
	Unspecified Services Engineering Contract Sewer	Design	\$2,268,600
	Open-Cut Sewer Pipe Replacement Contract	Construction	\$2,268,600
	San Antonio River Outfall Pipeline Rehabilitation	Construction	\$11,116,140
	Sewer Laterals 2013	Construction	\$3,346,185
		<b>Total</b>	<b>\$78,128,322</b>
<i>Treatment R&amp;R</i>	Dos Rios WRC Feasibility and Design for Sludge Conditioning and Dewatering	Design	\$1,729,808
	Dos Rios WRC Aeration and Secondary Settling Tank Improvements	Design	\$2,041,740
	Medio Creek WRC Process Piping Improvements	Design	\$113,430
	Dos Rios WRC Digester Mixing and System Enhancements - Phase 2	Construction	\$12,477,300
	Dos Rios WRC Instrumentation and Control Upgrade	Design	\$226,860
	Leon Creek WRC Automation	Design	\$311,933
		<b>Total</b>	<b>\$16,901,070</b>
	<b>TOTAL WASTEWATER</b>		<b>\$159,873,588</b>
<b>Water Delivery</b>			
<i>Corporate</i>			
	Service Center Facility Project Plan - WD Share	Acquisition	\$6,351,400
	IBM Mainframe Upgrade - WD Share	Acquisition	\$577,400
	ERSS Customer Information System - WD Share	Acquisition	\$577,400
	CIP Program Management Software	Acquisition	\$1,443,500
		<b>Total</b>	<b>\$8,949,700</b>
<i>Distribution Growth</i>	Hidden Springs Water System Improvement	Construction	\$1,327,332

	Install PRVs With Hidden Springs Project	Construction	\$80,836
	Water Main Oversizing 2013	Construction	\$1,154,800
	Dominion Fire Flow Improvement	Construction	\$3,175,700
	Install PRVs With Dominion Fire Flow Project	Construction	\$230,960
		<b>Total</b>	<b>\$5,969,628</b>
<i>Governmental Water</i>	Governmental Water Adjustments	Construction	\$5,866,384
	Governmental Water Installations	Construction	\$1,385,760
	Governmental Water Replacements	Construction	\$9,296,140
		<b>Total</b>	<b>\$16,548,284</b>
<i>Main Replacement - Water</i>	Meter Replacements	Construction	\$3,933,249
	Open Cut Water Contract	Construction	\$1,732,200
	Unspecified Services Engineering Contract Water	Design	\$1,154,800
	Main Replacements - Water - SAWS Crews	Construction	\$11,548
	Valves, Services and Meters	Construction	\$4,850,160
		<b>Total</b>	<b>\$11,681,957</b>
<i>Production R&amp;R</i>	Chlorine System Upgrades	Design	\$692,880
	Tank Mixing Systems - Shields/Cross Mountain	Construction	\$1,154,800
	Winwood Disinfectant Treatment Process Change (MIOX)	Construction	\$577,400
	Water Production Facility Upgrades Program Phase 8 - Nacogdoches	Construction	\$15,012,400
	Water Production Facility Upgrades Program Phase 4a - Basin	Construction	\$4,619,200
		<b>Total</b>	<b>\$22,056,680</b>
	<b>TOTAL WATER DELIVERY</b>		<b>\$65,206,249</b>
<b>Water Supply</b>			
<i>Recycled Water</i>	San Jose and Brooks Recycled Water Pump Station and Ground Storage Tank	Construction	\$1,367,883
	Recycle Customer Lines	Construction	\$1,381,700
		<b>Total</b>	<b>\$2,749,583</b>
<i>Water Resources</i>	Desalination: Construction Manager at Risk (Construction Services)	Construction	\$98,034,496
	Desalination: Legal	Acquisition	\$116,320
	Edwards Aquifer Acquisitions Contract Advisory Services	Acquisition	\$64,922
	Edwards Aquifer Water Rights	Acquisition	\$10,981,750
	Integration: Construction Management & Inspection	Construction	\$5,816,000
	Regional Carrizo: Well Mitigation Program	Construction	\$1,138,354
		<b>Total</b>	<b>\$116,151,842</b>
	<b>TOTAL WATER SUPPLY</b>		<b>\$118,901,425</b>
	<b>Heating &amp; Cooling</b>		<b>\$6,170,296</b>
	<b>Water Delivery</b>		<b>\$65,206,249</b>
	<b>Wastewater</b>		<b>\$159,873,588</b>
	<b>Water Supply</b>		<b>\$118,901,425</b>
	<b>TOTAL</b>		<b>\$350,151,557</b>



Attachment D  
Document 3

SAN ANTONIO WATER SYSTEM  
5-YEAR CAPITAL IMPROVEMENT PROGRAM W/ OVERHEAD

Core Business	CIP Category	Project Title	2013	2014	2015	2016	2017	Total 2013-2017
Water Delivery	Governmental	Governmental Water	16,548,284	24,250,800	28,870,000	17,322,000	17,322,000	104,313,084
Water Delivery	Main Replacements	Annual Survey Water	-	115,480	-	115,480	-	230,960
Water Delivery	Main Replacements	Brookhaven Allena Village Area Main Replacement - Phase 1 - Water	-	373,000	-	3,590,546	-	3,963,546
Water Delivery	Main Replacements	Brookhaven Allena Village Area Main Replacement - Phase 2 - Water	-	-	331,659	-	2,974,996	3,306,655
Water Delivery	Main Replacements	Brookhaven Allena Village Area Main Replacement - Phase 3 - Water	-	-	-	274,671	-	274,671
Water Delivery	Main Replacements	Hotwells Water Main Replacement	-	2,968,131	916,142	3,403,816	-	7,288,089
Water Delivery	Main Replacements	Lackland Terrace Estates Water Main Replacement - Phase 2	-	-	-	668,514	-	668,514
Water Delivery	Main Replacements	Lackland Terrace Estates Water Main Replacement - Phase 3	-	-	-	-	669,977	669,977
Water Delivery	Main Replacements	Lincoln Heights 2" Water Main Replacement (unspec design)	-	-	519,660	-	-	519,660
Water Delivery	Main Replacements	Los Angeles Heights Water Main Replacement - Phase 2	-	-	-	3,464,400	-	3,464,400
Water Delivery	Main Replacements	Main Replacements - Water - SAWS Crews	11,548	115,480	115,480	115,480	115,480	473,468
Water Delivery	Main Replacements	Near Northside Water Main Replacement - Phase 1	-	-	-	-	121,254	121,254
Water Delivery	Main Replacements	Replace 12" Water Main on Pleasanton Road at Medina River	-	288,700	-	-	-	288,700
Water Delivery	Main Replacements	Rio Grande St. 24" Water Main Replacement Project	-	-	-	2,632,899	-	2,632,899
Water Delivery	Main Replacements	Unspecified Services Engineering Contract	1,154,800	923,840	923,840	923,840	923,840	4,850,160
Water Delivery	Main Replacements	Meter Replacement	3,933,249	1,270,280	1,270,280	1,270,280	1,270,280	9,014,369
Water Delivery	Main Replacements	Valves, Services and Meters	4,850,160	4,157,280	4,157,280	4,157,280	4,157,280	21,479,280
Water Delivery	Main Replacements	Open Cut Water Contract	1,732,200	1,154,800	1,154,800	1,154,800	1,154,800	6,351,400
Water Delivery	Distribution Growth	Dominion Fire Flow Improvement	3,175,700	-	-	-	-	3,175,700
Water Delivery	Distribution Growth	Hidden Springs Water System Improvement	1,327,332	-	-	-	-	1,327,332
Water Delivery	Distribution Growth	Wurzbach PS to University PS (PZ7 to PZ8)	-	-	1,976,671	-	19,766,712	21,743,383
Water Delivery	Distribution Growth	Green Mountain PS to Evans PS (PZ10 to PZ11A)	-	-	-	638,142	-	638,142
Water Delivery	Distribution Growth	Naco PS to Green Mountain PS to Batcave PS (PZ9 to PZ10)	-	-	-	-	982,504	982,504
Water Delivery	Distribution Growth	PortSA Water Main Improvements	-	4,362,274	-	-	-	4,362,274
Water Delivery	Distribution Growth	PortSA 16-inch Water Main	-	1,261,042	-	-	-	1,261,042
Water Delivery	Distribution Growth	Water Main Oversizing	1,154,800	1,154,800	3,464,400	3,464,400	3,464,400	12,702,800
Water Delivery	Distribution Growth	Water Main Along Old Pearsall Rd, Nelson Rd and Loop 1604 from Pvt Rd to Hwy 90 (4-2)	-	-	-	-	5,410,238	5,410,238
Water Delivery	Distribution Growth	Water Main around Wilderness Oak Tank (10-04)	-	-	-	-	5,114,609	5,114,609
Water Delivery	Distribution Growth	Install PRVs With Hidden Springs Project	80,836	-	-	-	-	80,836
Water Delivery	Distribution Growth	Install PRVs With Dominion Fire Flow Project	230,960	-	-	-	-	230,960
Water Delivery	Production Growth	Batcave Storage Tank	-	-	-	-	194,873	194,873
Water Delivery	Production Growth	Blackbuck Tank	-	392,632	3,941,332	-	-	4,333,964
Water Delivery	Production Growth	Borgfeld Storage Tank & PS Improvements	-	-	238,178	-	425,833	664,011
Water Delivery	Production Growth	DeZavaia Storage Tank	-	238,178	476,355	-	4,763,550	5,478,083
Water Delivery	Production Growth	Mission del Lago Elevated Storage Tank (AKA Applewhite)	-	-	5,022,110	-	-	5,022,110
Water Delivery	Production Growth	Turtle Creek No. 3 Ground Storage Tank and Well Pumps	-	-	-	776,603	-	776,603
Water Delivery	Production Growth	Turtle Creek No. 3 Well Field	-	-	1,351,231	-	13,512,315	14,863,546
Water Delivery	Production Growth	Turtle Creek No. 3 PS High Service Pumps	-	-	-	-	788,497	788,497
Water Delivery	Production Growth	Wayland PS Improvements	-	227,351	-	2,273,513	-	2,500,864
Water Delivery	Production Growth	Evans PS Improvements	-	1,032,103	-	-	-	1,032,103
Water Delivery	Production R&R	Replace Loma Linda Tank with Richland Hills Tank	-	-	-	4,619,200	-	4,619,200
Water Delivery	Production R&R	Forest Glen PRVs	-	173,220	-	-	-	173,220

Attachment D  
Document 3

Core Business	CIP Category	Project Title	2013	2014	2015	2016	2017	Total 2013-2017
Water Delivery	Production R&R	Pump Station Rehabilitation Phase 4a - Basin	4,619,200					4,619,200
Water Delivery	Production R&R	Pump Station Rehabilitation Phase 4b - Basin		548,530		8,083,600		8,632,130
Water Delivery	Production R&R	University PS Improvements		4,041,800				4,041,800
Water Delivery	Production R&R	Pump Station Rehabilitation Phase 6 - Evans 11A Booster				115,480	1,154,800	1,270,280
Water Delivery	Production R&R	Pump Station Rehabilitation Phase 7 - 34th Street		692,880	5,774,000			6,466,880
Water Delivery	Production R&R	Pump Station Rehabilitation Phase 8 - Nacogdoches	15,012,400					15,012,400
Water Delivery	Production R&R	Pump Station Rehabilitation Phase 9 - Marbach					565,852	565,852
Water Delivery	Production R&R	Pump Station Rehabilitation Phase 10 - Maltsberger				993,128		993,128
Water Delivery	Production R&R	Pump Station Rehabilitation Phase 11 - Wurzbach			1,108,608		5,543,040	6,651,648
Water Delivery	Production R&R	Well Plugging & Facility Demolition Project		115,480		115,480		230,960
Water Delivery	Production R&R	Production SCADA Upgrade					115,480	115,480
Water Delivery	Production R&R	Chlorine System Upgrades	692,880	6,928,800	6,928,800			14,550,480
Water Delivery	Production R&R	Demolish Tinker Tank			173,220			173,220
Water Delivery	Corporate - WD	Service Center Facility Plan Project - Water Share	6,351,400	9,527,100	11,721,220			27,599,720
Wastewater	Governmental	Governmental Sewer	18,693,264	23,820,300	28,357,500	15,880,200	15,880,200	102,631,464
Wastewater	Main Replacements - Sewer	Annual Survey Sewer 2011		113,430		113,430		226,860
Wastewater	Main Replacements - Sewer	Brackenridge H.S.; Renew 38" Main				952,812		952,812
Wastewater	Main Replacements - Sewer	Brookhaven Allena Village Area Main Replacement - Phase 1 - Sewer		300,590		3,418,894		3,719,484
Wastewater	Main Replacements - Sewer	Brookhaven Allena Village Area Main Replacement - Phase 2 - Sewer			307,962		3,728,784	4,036,746
Wastewater	Main Replacements - Sewer	Brookhaven Allena Village Area Main Replacement - Phase 3 - Sewer				261,083		261,083
Wastewater	Main Replacements - Sewer	Camp St. Old Siphon Abandonment					567,150	567,150
Wastewater	Main Replacements - Sewer	Hotwells Sewer Main Replacement		8,466,029	4,246,682	6,533,330		19,246,041
Wastewater	Main Replacements - Sewer	Lackland Terrace Estates Sewer Main Replacement - Phase 2				329,854		329,854
Wastewater	Main Replacements - Sewer	Lackland Terrace Estates Sewer Main Replacement - Phase 3					335,408	335,408
Wastewater	Main Replacements - Sewer	Los Angeles Heights Sewer Main Replacement - Phase 2				3,402,900		3,402,900
Wastewater	Main Replacements - Sewer	Main Replacements - Sewer - SAWS Crews	3,771,548	3,402,900	3,402,900	3,402,900	1,134,300	15,114,548
Wastewater	Main Replacements - Sewer	Near Northside Sewer Main Replacement - Phase 1					164,700	164,700
Wastewater	Main Replacements - Sewer	Open Cut Sewer Contract	2,268,600	2,268,600	2,268,600	2,268,600	2,268,600	11,343,000
Wastewater	Main Replacements - Sewer	Sewer Laterals	3,346,185	3,402,900	3,402,900	3,402,900	1,134,300	14,689,185
Wastewater	Main Replacements - Sewer	Unspecified Services Engineering Contract 2011	2,268,600	2,268,600	2,268,600	2,268,600	2,268,600	11,343,000
Wastewater	Main Replacements - Sewer	Small Diameter Rehabilitation Program	27,600,308	27,600,308	27,600,308	27,600,308	27,600,308	138,001,540
Wastewater	Main Replacements - Sewer	Large Diameter Rehabilitation Program	2,552,175	2,552,175	2,552,175	2,552,175	2,552,175	12,760,875
Wastewater	Main Replacements - Sewer	Capacity Program	2,835,750	2,835,750	2,835,750	2,835,750	2,835,750	14,178,750
Wastewater	Main Replacements - Sewer	Manhole Rehabilitation Program	1,951,616	1,951,616	1,951,616	1,951,616	1,951,616	9,758,080
Wastewater	Collection Growth	C-3 SA Airport : McCullough and Wetmore to Basse					3,176,040	3,176,040
Wastewater	Collection Growth	W-1 Leon Creek: Hwy 151 to Hwy 90 (formerly W-01A & W-01B Western Relief Project)				4,169,108		4,169,108
Wastewater	Collection Growth	W-2 Huebner Creek: Eckhart to Shadow Mist (formerly W-06)		158,802		5,379,985	5,379,985	10,918,772
Wastewater	Collection Growth	W-6 Western Watershed Sewer Relief Line: Projects 1-6 (formerly West Relief Main, Hwy 90 to Loop 410 Lower to Upper Segments)	14,745,900	11,343,000	11,343,000	22,686,000	22,686,000	82,803,900
Wastewater	Collection Growth	Sewer Main Oversizing	113,430	340,290	340,290	340,290	340,290	1,474,590
Wastewater	Collection Growth	W_31_IH-10_Boerne Stage to Old Fredericksburg (formerly known as the Western Extension_B Project)		1,814,880		7,372,950	7,372,950	16,560,780

Attachment D  
Document 3

Core Business	CIP Category	Project Title	2013	2014	2015	2016	2017	Total 2013-2017
Wastewater	Collection Growth	C-5: Culebra and Castroville to Laredo (formerly C-23 along 27th St. from Arbor Place to W. Poplar St.) includes C-28	-	6,805,800	6,805,800	6,805,800	-	20,417,400
Wastewater	Collection Growth	Cibola Creek Sewershed Flow Diversion	-	7,543,095	-	-	-	7,543,095
Wastewater	Collection Growth	Install sewer main from LS 224 to SBSP Applewood Ranch: Oversize Sewer Main Cagnon Rd to MRSO	-	-	499,092	-	-	499,092
Wastewater	Collection Growth	C-11 Alazan Creek: Mistletoe to Leal (Formerly known as C-19)	-	1,786,523	-	-	-	1,786,523
Wastewater	Collection R&R	C-12 Donaldson Terrace (formerly known as C-14 & C-15)	1,459,512	-	7,297,559	7,297,559	-	16,054,630
Wastewater	Collection R&R	C-13 Broadway Corridor: Josephine to Commerce (formerly C04A, C03A, C03B, C05, and C02B)	8,507,250	10,208,700	7,940,100	7,940,100	-	34,596,150
Wastewater	Collection R&R	C-18 Loop 410 to Shannon Lee (formerly known as C-10)	-	-	-	1,101,419	-	1,101,419
Wastewater	Collection R&R	C-22 Balcones Heights: Oakdale to Babcock (formerly C-12 (Focus Area40) & C-13)	-	-	680,580	-	3,402,900	4,083,480
Wastewater	Collection R&R	C-33 Broadway Corridor: Carnahan to E. Mulberry (formerly C_04B and C-03 (C-2-C-6))	9,074,400	13,611,600	11,343,000	-	-	34,029,000
Wastewater	Collection R&R	C-8 Merida: Zarzamora to Brazos (formerly C-25)	-	-	-	-	151,910	151,910
Wastewater	Collection R&R	E-15 Weidner to IH-35 (formerly E_17)	-	-	-	-	471,327	471,327
Wastewater	Collection R&R	E-16 Wurzbach: Blanco to Nakoma (formerly E_10, E_11, and C-08)	-	1,542,648	-	7,713,240	7,713,240	16,969,128
Wastewater	Collection R&R	E-19 Salado Creek to Binz-Engleman (formerly E_04B, E-04A, E-05A up to Salado Creek)	-	-	-	4,537,200	-	4,537,200
Wastewater	Collection R&R	E-20 Wurzbach: Jones Maltzberger to Nacogdoches (formerly E_15 PBS&J, E_10 PBS&J, E_09 PBS&J, E_05A, E_06 PBS&J, and E_09 PBS&J)	-	-	-	-	1,883,285	1,883,285
Wastewater	Collection R&R	E-25 Edgewater to Madison Park (formerly E_23 PBS&J)	-	-	-	-	102,326	102,326
Wastewater	Collection R&R	E-26 Mud Creek: Walden Oaks to Crooked Stick (formerly NE Mud Creek)	-	-	-	-	243,812	243,812
Wastewater	Collection R&R	E-7 Beitel Creek: Wurzbach Pkwy to Austin Hwy (formerly E_08 PBS&J)	-	-	1,700,638	-	8,503,189	10,203,827
Wastewater	Collection R&R	W-10 Huebner Creek: IH-10 to Huebner Rd	-	-	-	-	1,326,108	1,326,108
Wastewater	Collection R&R	W-9 Huebner Creek: Prue to Ingram (formerly W-07A, W-07B, & W-07C)	-	-	3,825,270	-	19,126,351	22,951,621
Wastewater	Collection R&R	Install Sewer Mains and Eliminate Lift Stations near Port SA	-	-	4,537,200	1,134,300	-	5,671,500
Wastewater	Collection R&R	MRSO Odor Control Stations	-	113,430	1,134,300	-	-	1,247,730
Wastewater	Collection R&R	Lift Station Rehabilitation Phase 4	-	453,720	4,537,200	-	-	4,990,920
Wastewater	Collection R&R	Lift Station Elimination Phase 2	-	-	1,928,310	-	-	1,928,310
Wastewater	Collection R&R	Lift Station Elimination Phase 3	-	-	178,652	1,000,453	-	1,179,105
Wastewater	Collection R&R	Lift Station #135 Elimination	-	-	956,215	-	-	956,215
Wastewater	Collection R&R	Lift Station's 251, 267, 225, & 193 Elimination	340,290	-	-	873,411	-	1,213,701
Wastewater	Collection R&R	LS 11 (Feathercrest) and LS 111 (Stone Ridge) Elimination	3,119,325	226,860	-	-	-	3,346,185
Wastewater	Collection R&R	Lift Stations SCADA Upgrade	-	-	-	-	113,430	113,430
Wastewater	Collection R&R	Rehabilitate Pipelines Constructed from 1900 – 1940 under TxDOT ROW San Antonio River Outfall Pipeline	-	-	-	2,268,600	2,268,600	4,537,200
Wastewater	Main Replacements - Sewer	Rehabilitation	11,116,140	7,032,660	-	-	-	18,148,800
Wastewater	Main Replacements - Sewer	SSO Rehabilitation	20,417,400	20,417,400	20,417,400	20,417,400	20,417,400	102,087,000
Wastewater	Treatment Growth	Dos Rios WRC Re-rating Phase II - Primary Settling Tanks Improvements	-	-	31,760,400	-	-	31,760,400
Wastewater	Treatment R&R	Dos Rios WRC Digester Mixing and System Enhancements - Phase 2	12,477,300	-	-	-	-	12,477,300
Wastewater	Treatment R&R	Dos Rios WRC Digester Mixing and System Enhancements - Phase 3	-	1,020,870	10,775,850	-	-	11,796,720

Attachment D  
Document 3

Core Business	CIP Category	Project Title	2013	2014	2015	2016	2017	Total 2013-2017
Wastewater	Treatment R&R	Dos Rios WRC Secondary Treatment Improvements	2,041,740	20,417,400				22,459,140
Wastewater	Treatment R&R	Dos Rios WRC Feasibility and Design for Sludge Conditioning and Dewatering	1,729,808	17,298,075				19,027,883
Wastewater	Treatment R&R	Dos Rios WRC SCADA Upgrade						
Wastewater	Treatment R&R	Dos Rios WRC Electrical System Improvements			1,134,300	11,343,000		12,477,300
Wastewater	Treatment R&R	Leon Creek WRC Sludge Pumping Improvements		340,290	3,402,900			3,743,190
Wastewater	Treatment R&R	Leon Creek WRC Headworks Improvements				850,725	8,507,250	9,357,975
Wastewater	Treatment R&R	Leon Creek WRC Improvements Phase III BNR					2,268,600	2,268,600
Wastewater	Treatment R&R	Leon Creek & Medio Creek WRC SCADA Upgrade			283,575		2,835,750	3,119,325
Wastewater	Treatment R&R	Leon Creek WRC Biological Process Automation	311,933	2,268,600				2,580,533
Wastewater	Treatment R&R	Medio Creek WRC Process Piping Enhancements	113,430	1,134,300				1,247,730
Wastewater	Treatment R&R	Medio Creek WRC Carousels 3, 4, 5 Process Rehabilitation			34,029	340,290		374,319
Wastewater	Corporate - WW	Service Center Facility Plan Project - WW Share	6,238,650	9,357,975	11,513,145			27,109,770
Heating & Cooling	Heating & Cooling R&R	Heating and Cooling System Infrastructure 2012	125,000	125,000	125,000	125,000	125,000	625,000
Heating & Cooling	Heating & Cooling R&R	H&C Governmental Projects	5,952,271					5,952,271
Heating & Cooling	Heating & Cooling R&R	Heating & Cooling Facilities SCADA Upgrade		1,875,000				1,875,000
Heating & Cooling	Heating & Cooling R&R	Chilled Water Loop Crossover (Alamodome to Cherry Street Facility)			149,125	1,491,250		1,640,375
Heating & Cooling	Heating & Cooling R&R	Chilled Water Loop Crossover (Commerce Street)				186,875	1,868,750	2,055,625
Heating & Cooling	Heating & Cooling R&R	Chilled Water Loop Crossover (Durango Street)					93,125	93,125
Heating & Cooling	Heating & Cooling R&R	Chilled Water Distribution Loop Isolation Valves/Meter Upgrades	93,025	930,500				1,023,525
Heating & Cooling	Heating & Cooling R&R	Preliminary Design of Customer Modular Heating Boilers & Heat Exchangers			250,000			250,000
Heating & Cooling	Heating & Cooling R&R	Replace existing Ice Chillers in Commerce Street Plant					129,500	129,500
Heating & Cooling	Heating & Cooling R&R	Convert Customer Buildings to 2-way valves w/o Bypass			3,250	32,500		35,750
Heating & Cooling	Heating & Cooling R&R	Install (3) 4,160V VFD's on Cherry Street Plant Chillers				115,000	1,150,000	1,265,000
Heating & Cooling	Heating & Cooling R&R	Install Thermal Energy Storage Tank at Cherry St. Plant				325,000	3,250,000	3,575,000
Water Resources	Recycled Water	Recycle Customer Lines	1,381,700	1,381,700	1,381,700	1,381,700	1,381,700	6,908,500
Water Resources	Recycled Water	Eastern Leg Recycled Water Storage		621,765		6,217,650		6,839,415
Water Resources	Recycled Water	Recycled Water SCADA Upgrade					138,170	138,170
Water Resources	Recycled Water	Upsize 30" Recycled Water Main on Harry Wurzbach		276,340		2,763,400		3,039,740
Water Resources	Recycled Water	San Jose and Brooks Recycled Water Pump Station and Ground Storage Tank	1,367,883					1,367,883
Water Resources	Recycled Water	Convention Center Recycled Water Outfall Safety Upgrade						
Water Resources	Recycled Water	Governmental Adjustments		1,381,700	1,381,700	1,381,700	1,381,700	5,526,800
Water Resources	Edwards	Edwards Aquifer Acquisitions Contract Advisory Services	64,922	64,922	64,922	64,922	64,922	324,610
Water Resources	Edwards	Edwards Aquifer Acquisitions Groundwater Rights Purchase	10,981,750	10,981,750	10,981,750	10,981,750	10,981,750	54,908,750
Water Resources	Regional Carrizo	Regional Carrizo: Well Mitigation Program	1,138,354					1,138,354
Water Resources	Desalination	Desalination: Legal	116,320					116,320
Water Resources	Desalination	Desalination: Constructability Review						
Water Resources	Desalination	Desalination: Construction Manager At Risk (Construction Services)	98,034,496					98,034,496
Water Resources	Integration	Integration: Water Transmission Line Segment I		32,818,646				32,818,646

Attachment D  
Document 3

Core Business	CIP Category	Project Title	2013	2014	2015	2016	2017	Total 2013-2017
Water Resources	Integration	Integration: Water Transmission Line Segment II	-	20,792,155	-	-	-	20,792,155
Water Resources	Integration	Integration: Pump Stations	-	43,915,714	7,749,832	-	-	51,665,546
Water Resources	Integration	Integration: Construction Management & Inspection Services	5,816,000	-	-	-	-	5,816,000
Water Resources	ASR	Twin Oaks ASR SCADA Upgrade	-	581,600	-	-	-	581,600
Water Resources	Integration	Integration: Water Transmission Line Segment III	-	-	36,239,837	-	-	36,239,837
Water Resources	Integration	Integration: Water Transmission Line Segment II from Booster PS to Anderson Tank	-	-	20,792,155	-	-	20,792,155
Water Delivery	Production R&R	Tank Mixing Systems - Shields/Cross Mountain	1,154,800	-	-	-	-	1,154,800
Water Delivery	Production R&R	Winwood Disinfectant Treatment Process Change (MIOX)	577,400	-	-	-	-	577,400
Water Delivery	Corporate - WD	IBM Mainframe Upgrade - WD Share	577,400	-	-	-	-	577,400
Water Delivery	Corporate - WD	ERSS Customer Information System - WD Share	577,400	-	-	-	-	577,400
Water Delivery	Corporate - WD	CIP Program Management Software - WD Share	1,443,500	-	-	-	-	1,443,500
Water Delivery	Corporate - WD	Dos Rios WRC Instrumentation and Control Upgrade	226,860	-	2,268,600	-	-	2,495,460
Wastewater	Treatment R&R	IBM Mainframe Upgrade - WW Share	567,150	-	-	-	-	567,150
Wastewater	Corporate - WW	ERSS Customer Information System - WW Share	567,150	-	-	-	-	567,150
Wastewater	Corporate - WW	CIP Program Management Software - WD Share	1,417,875	-	-	-	-	1,417,875
Water Resources	Desalination	Desalination Mitigation Program	-	-	-	-	1,372,576	1,372,576
Water Resources	Desalination	Desalination: Design - Phase II	-	-	-	-	14,193,366	14,193,366
Water Resources	Expanded Carrizo	Expanded Carrizo: Design - Phase 1	-	918,928	-	-	-	918,928
Water Resources	Expanded Carrizo	Expanded Carrizo: Easements	-	7,210	-	-	-	7,210
Water Resources	Expanded Carrizo	Expanded Carrizo: Wells	-	-	3,908,352	-	-	3,908,352
Water Resources	Expanded Carrizo	Expanded Carrizo: Pipeline	-	-	3,560,467	-	-	3,560,467
Water Resources	Expanded Carrizo	Expanded Carrizo: Electrical Infrastructure	-	-	159,780	-	-	159,780
Water Resources	Expanded Carrizo	Expanded Carrizo: Well Finishout	-	-	659,852	-	-	659,852
Water Resources	Expanded Carrizo	Expanded Carrizo: Well Rehab (Staggs)	-	-	558,336	-	-	558,336
Water Resources	Expanded Carrizo	Expanded Carrizo: Re-mitigation Lower Pumps	-	-	-	-	41,875	41,875
Water Resources	Expanded Carrizo	Expanded Carrizo: Re-mitigation Lower Wells	-	-	-	-	302,432	302,432
Water Resources	Expanded Carrizo	Expanded Carrizo: Drill new wells	-	-	-	-	1,163,200	1,163,200
Water Resources	Expanded Carrizo	Expanded Carrizo: Road Improvement	-	-	-	-	19,387	19,387
Water Resources	RFCSP	RFCSP - Integration Project	-	29,080,000	29,080,000	29,080,000	29,080,000	116,320,000
<b>Total</b>			<b>350,151,559</b>	<b>426,287,027</b>	<b>423,313,722</b>	<b>305,067,481</b>	<b>339,230,873</b>	<b>1,844,050,662</b>

# Attachment D

## Document 4

Pipe Diameter	Under 10 Years	10-20 Years	20-30 Years	30-40 Years	40-50 Years	>50 Years	Unknown	Grand Total
2	0.03	0.04	0.87	0.28	-	-	-	1.22
4	2.19	4.27	1.13	0.81	0.39	0.13	0.50	9.42
6	10.26	7.24	4.45	4.61	5.20	30.10	0.06	61.92
8	789.83	788.85	701.70	593.29	377.99	714.08	4.88	3,970.62
10	50.90	54.16	59.12	33.80	26.75	63.54	0.37	288.64
12	59.05	32.22	52.83	26.28	18.04	29.01	3.03	220.46
14	0.06	3.95	0.34	-	0.35	-	-	4.70
15	23.34	15.31	33.38	15.80	11.90	19.15	0.21	119.09
16	1.71	0.33	1.14	2.37	0.26	-	0.03	5.84
18	20.20	17.05	22.25	18.00	8.12	14.73	0.09	100.44
20	1.00	0.29	0.79	0.35	0.31	2.07	0.02	4.83
21	8.55	5.37	16.31	9.94	3.53	6.45	-	50.15
24	8.95	13.04	20.97	16.99	5.55	13.33	0.03	78.86
27	4.36	1.64	11.11	7.41	2.23	3.26	0.10	30.11
30	4.58	1.48	15.89	5.78	7.43	3.60	-	38.76
33	0.64	1.82	2.10	7.72	2.45	5.19	-	19.92
36	12.08	3.25	18.27	3.80	4.81	5.42	0.04	47.67
39	-	-	-	0.07	0.19	1.58	-	1.84
42	5.12	0.63	6.20	7.45	4.71	6.19	0.09	30.39
48	3.12	0.30	4.73	7.01	9.65	1.26	-	26.07
51	-	-	-	-	-	0.21	-	0.21
52	-	-	-	-	-	0.12	-	0.12
54	2.78	0.46	6.07	1.17	12.12	1.42	-	24.02
60	1.63	1.66	1.99	0.18	11.85	0.66	-	17.97
66	2.27	0.14	5.79	-	0.03	-	-	8.23
72	0.77	0.02	5.66	0.03	0.23	5.09	-	11.80
78	2.14	-	0.37	-	0.20	-	-	2.71
84	3.22	-	5.53	-	-	-	-	8.75
90	3.66	-	8.18	-	0.35	-	-	12.19
Unknown	0.17	-	-	-	-	-	0.01	0.18
<b>Total</b>	<b>1,022.61</b>	<b>953.52</b>	<b>1,007.17</b>	<b>763.14</b>	<b>514.64</b>	<b>926.59</b>	<b>9.46</b>	<b>5,197.13</b>

# Attachment D

## Document 5

San Antonio Water System

CIP Summary

Balances as of October 31, 2012

Water Delivery							
Year	CIP Budget	Revised CIP Budget	Commitments	Commit/Budget Variance	Actual	Commit/Actual Variance	% Spent
2008	\$60,305,838	\$64,870,855	\$64,870,855	\$0	\$64,540,391	\$330,464	99%
2009	\$58,091,949	\$48,956,345	\$48,956,345	\$0	\$43,783,702	\$5,172,643	89%
2010	\$78,137,301	\$76,935,709	\$76,935,709	\$0	\$68,225,899	\$8,709,810	89%
2011	\$48,791,640	\$55,557,661	\$55,262,394	\$295,267	\$39,612,622	\$15,649,772	71%
2012 YTD	\$54,013,219	\$54,013,219	\$43,051,632	\$10,961,587	\$13,021,525	\$30,030,107	24%
<b>Total</b>	<b>\$299,339,947</b>	<b>\$300,333,789</b>	<b>\$289,076,935</b>	<b>\$11,256,854</b>	<b>\$229,184,139</b>	<b>\$59,892,796</b>	<b>76%</b>

Wastewater							
Year	CIP Budget	Revised CIP Budget	Commitments	Commit/Budget Variance	Actual	Commit/Actual Variance	% Spent
2008	\$98,282,473	\$110,767,495	\$110,767,495	\$0	\$107,721,806	\$3,045,689	97%
2009	\$123,327,433	\$119,758,818	\$119,758,818	\$0	\$111,203,445	\$8,555,373	93%
2010	\$118,507,888	\$111,457,785	\$111,457,785	\$0	\$99,320,827	\$12,136,958	89%
2011	\$126,851,226	\$125,258,857	\$125,177,233	\$81,624	\$82,848,819	\$42,328,414	66%
2012 YTD	\$122,123,933	\$122,123,933	\$93,779,027	\$28,344,906	\$26,927,273	\$66,851,754	22%
<b>Total</b>	<b>\$589,092,953</b>	<b>\$589,366,888</b>	<b>\$560,940,358</b>	<b>\$28,426,530</b>	<b>\$428,022,170</b>	<b>\$132,918,188</b>	<b>73%</b>

Water Supply							
Year	CIP Budget	Revised CIP Budget	Commitments	Commit/Budget Variance	Actual	Commit/Actual Variance	% Spent
2008	\$72,301,160	\$19,300,938	\$19,300,938	\$0	\$18,602,924	\$698,014	96%
2009	\$85,926,292	\$87,970,272	\$87,970,272	\$0	\$85,062,625	\$2,907,647	97%
2010	\$100,971,787	\$101,149,541	\$86,107,905	\$15,041,636	\$80,125,532	\$5,982,373	79%
2011	\$78,975,957	\$101,238,307	\$101,238,307	\$0	\$12,004,900	\$89,233,407	12%
2012 YTD	\$39,227,144	\$39,227,144	\$13,255,518	\$25,971,626	\$11,470,298	\$1,785,220	29%
<b>Total</b>	<b>\$377,402,340</b>	<b>\$348,886,202</b>	<b>\$307,872,940</b>	<b>\$41,013,262</b>	<b>\$207,266,279</b>	<b>\$100,606,661</b>	<b>59%</b>

Total System							
Year	CIP Budget	Revised CIP Budget	Commitments	Commit/Budget Variance	Actual	Commit/Actual Variance	% Spent
2008	\$230,889,471	\$194,939,288	\$194,939,288	\$0	\$190,865,121	\$4,074,167	98%
2009	\$267,345,674	\$256,685,435	\$256,685,435	\$0	\$240,049,772	\$16,635,663	94%
2010	\$297,616,976	\$289,543,035	\$274,501,399	\$15,041,636	\$247,672,258	\$26,829,141	86%
2011	\$254,618,823	\$282,054,825	\$281,677,934	\$376,891	\$134,466,341	\$147,211,593	48%
2012 YTD	\$215,364,296	\$215,364,296	\$150,086,177	\$65,278,119	\$51,419,096	\$98,667,081	24%
<b>Total</b>	<b>\$1,265,835,240</b>	<b>\$1,238,586,879</b>	<b>\$1,157,890,233</b>	<b>\$80,696,646</b>	<b>\$864,472,588</b>	<b>\$293,417,645</b>	<b>70%</b>

# Attachment E

Document 1: Total Existing Senior Lien, Junior Lien, and Subordinate Lien Debt Service

Document 2: Total Existing and Proposed Senior Lien, Junior Lien, and Subordinate Lien Debt Service

Document 3: Days Cash on Hand

Document 4: Debt Coverage Ratio - Senior

Document 5: Debt Coverage Ratio – All Bonded Debt

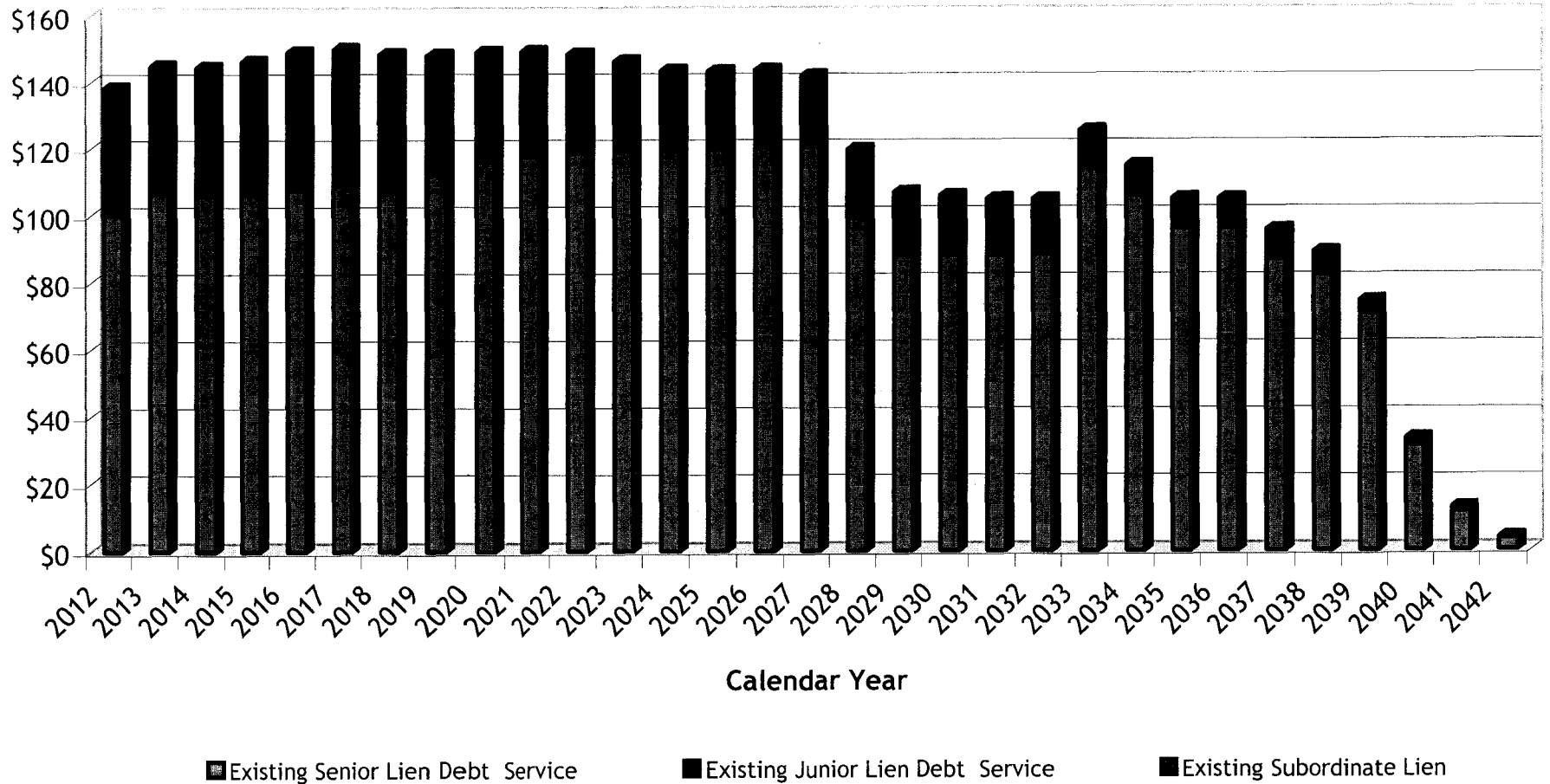
Document 6: Percentage Cash Financing of CIP



SAN ANTONIO WATER SYSTEM

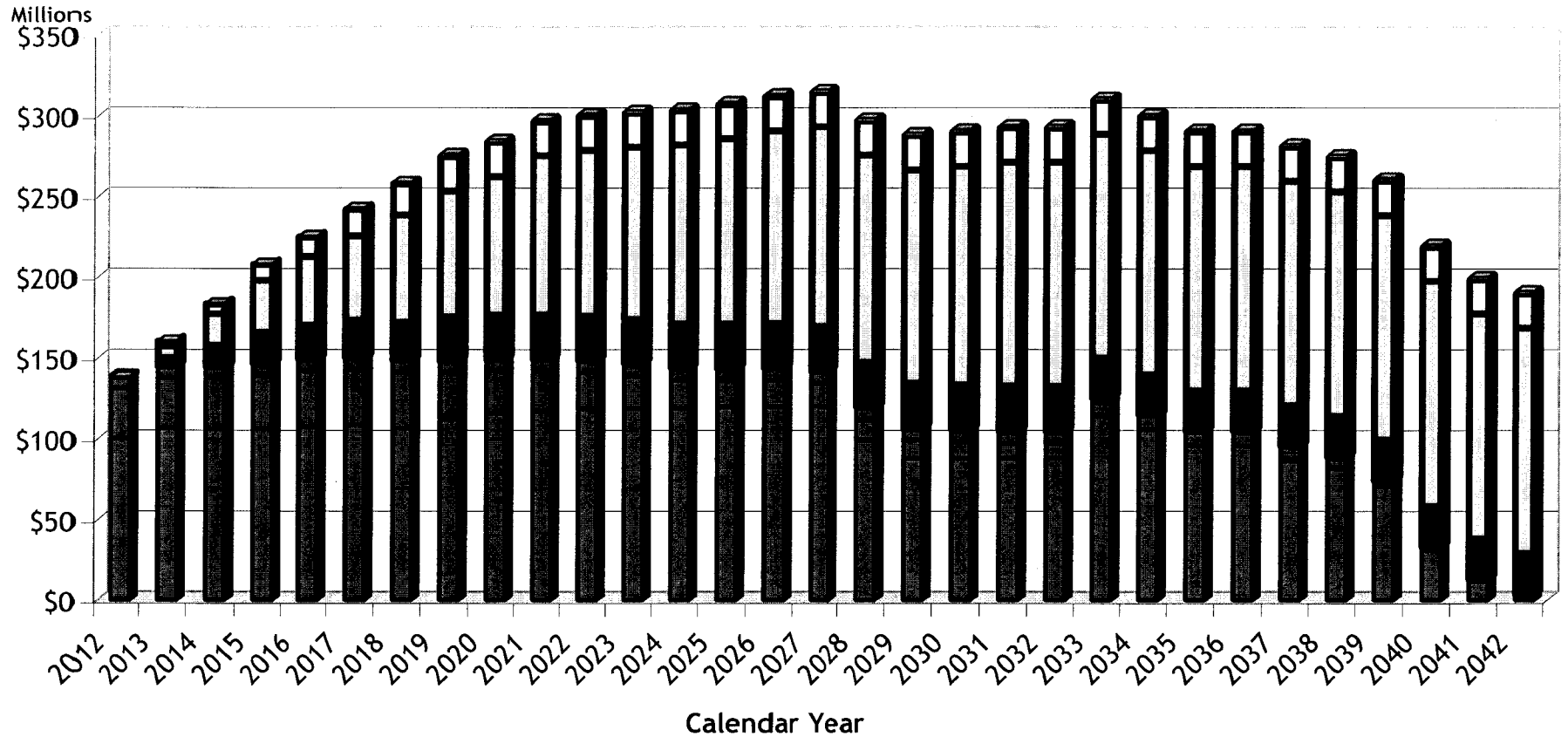
Millions

Total Existing Senior Lien, Junior Lien, and Subordinate Lien Debt Service



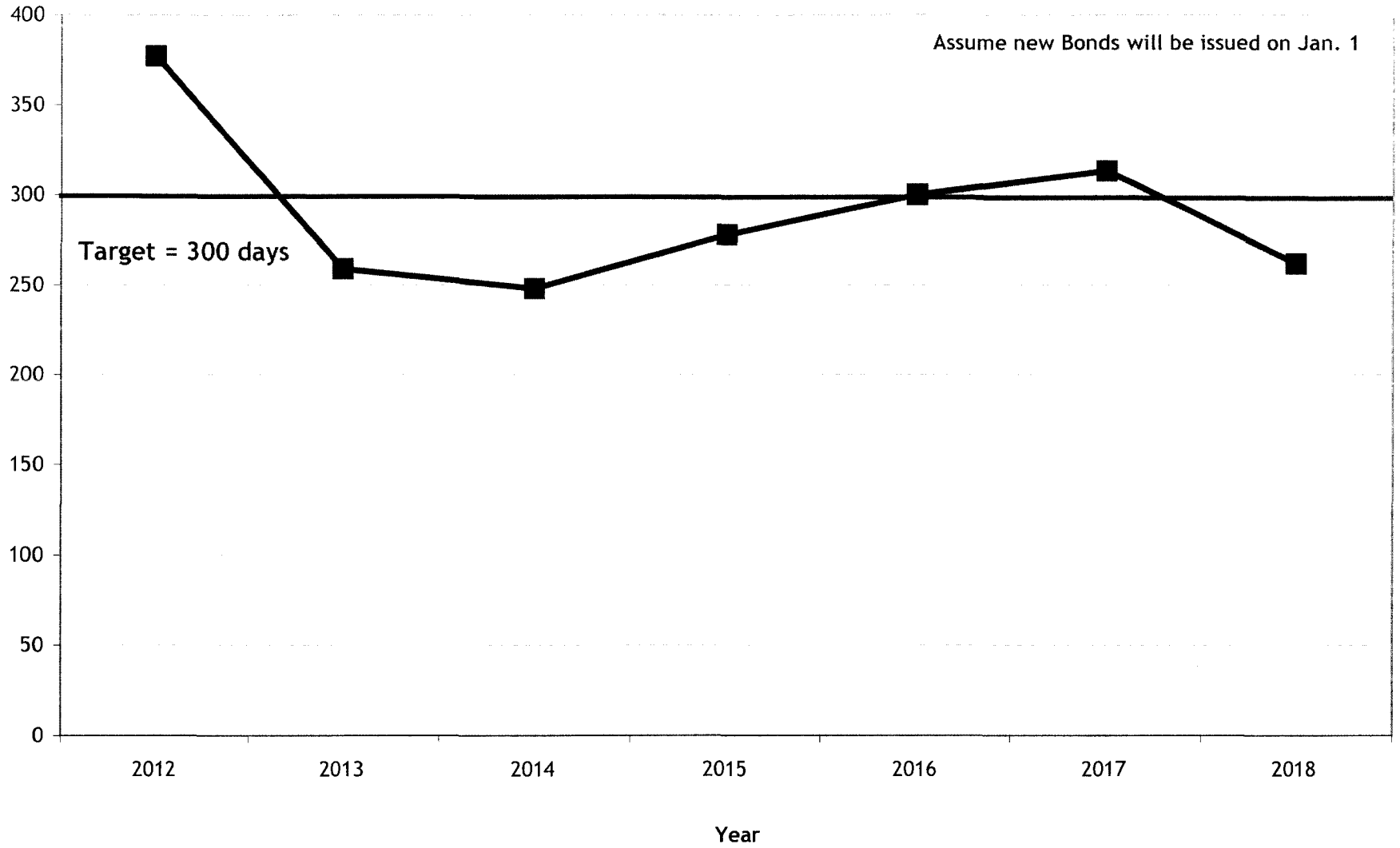
SAN ANTONIO WATER SYSTEM

Total Existing and Proposed Senior Lien, Junior Lien, and Subordinate Lien Debt Service



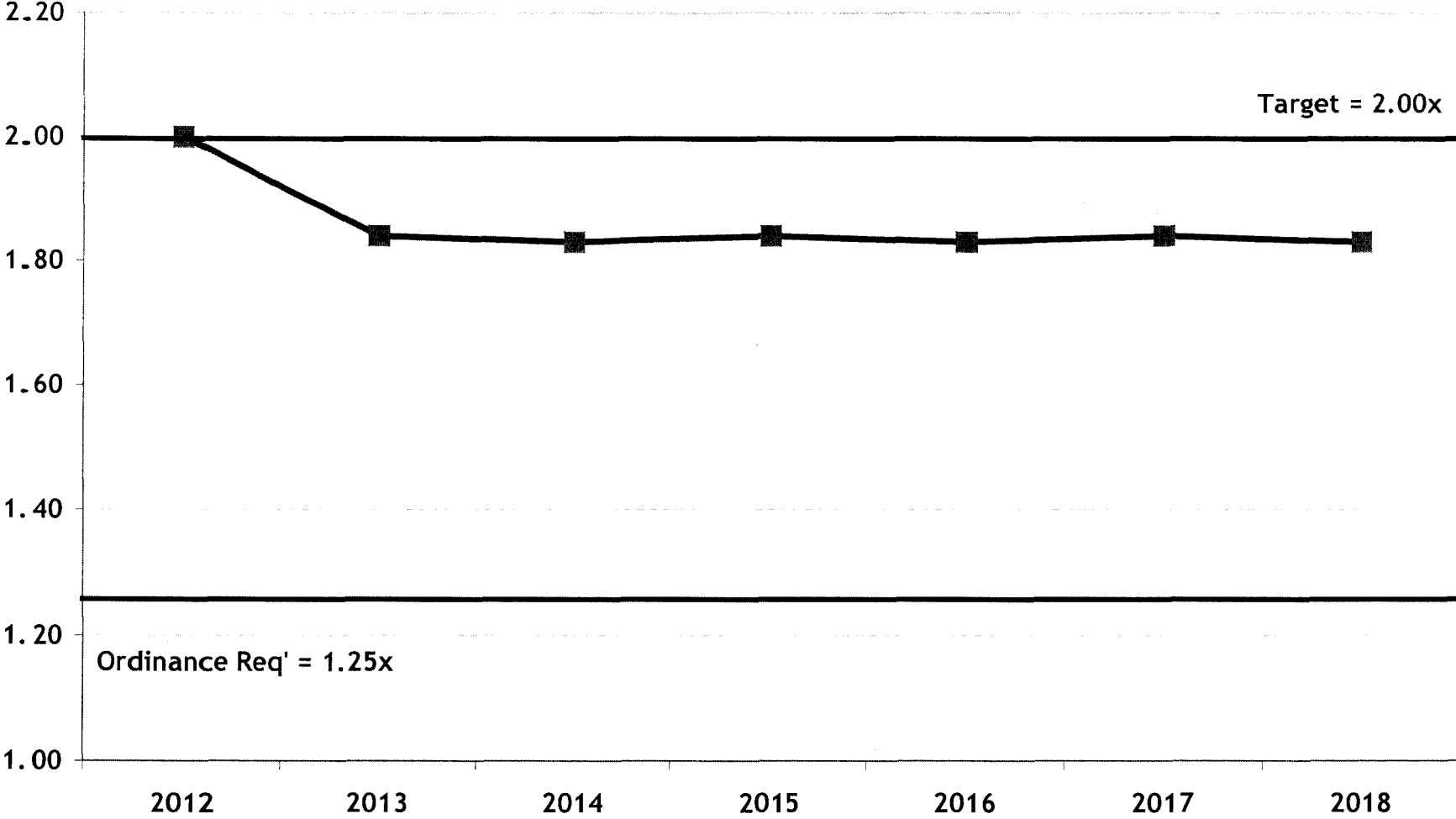
- Existing Senior Lien Debt Service
- Existing Junior Lien Debt Service
- Existing Subordinate Lien
- Total Notes Payable CIP Debt Service
- Proposed Water Supply Debt Service
- Proposed Wastewater Debt Service
- Proposed Water Delivery Debt Service
- Proposed CW&S Debt Service

# Days Cash on Hand



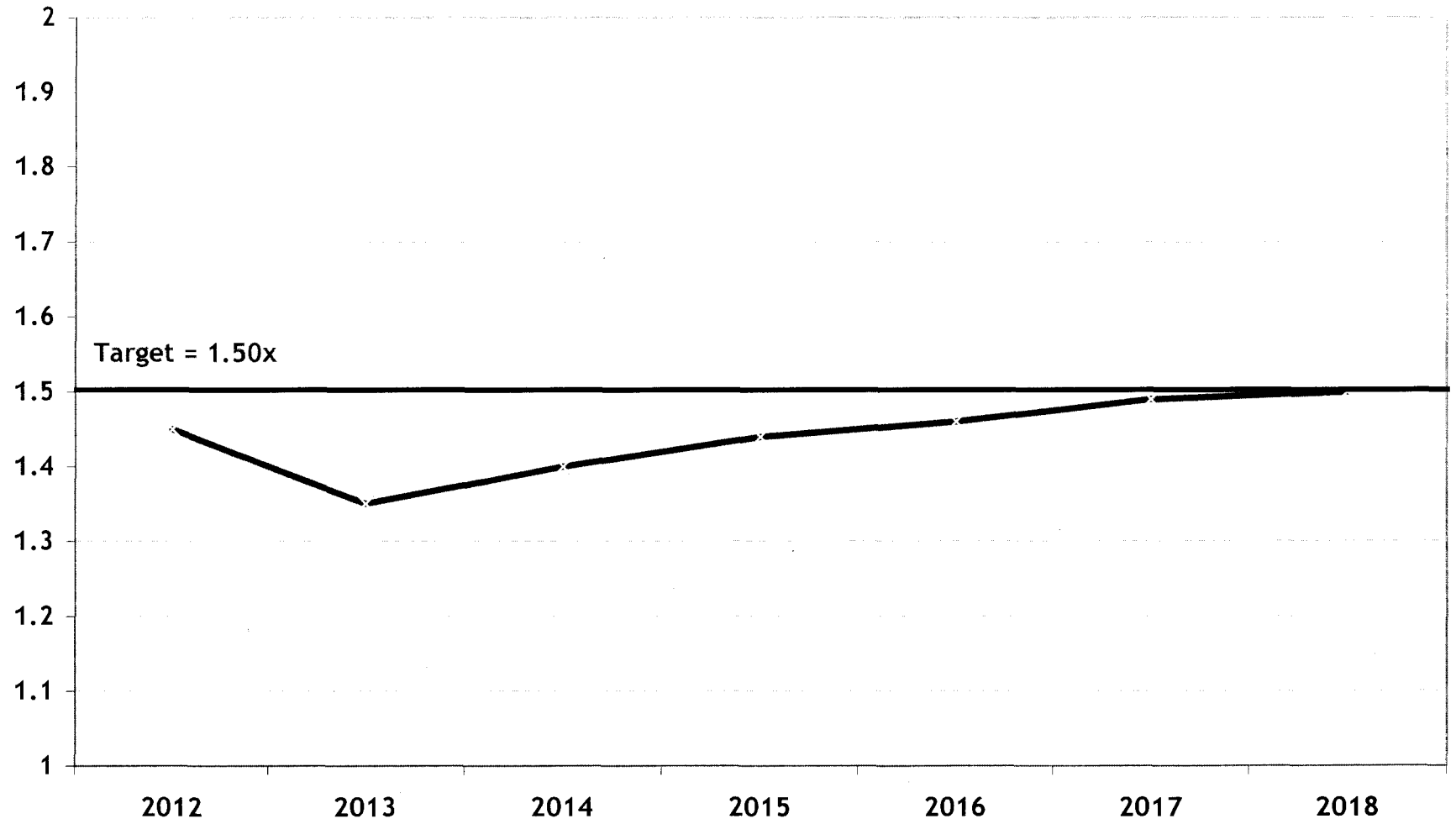
# Financial Ratio (Sources & Uses)

Debt Coverage Ratio - Senior



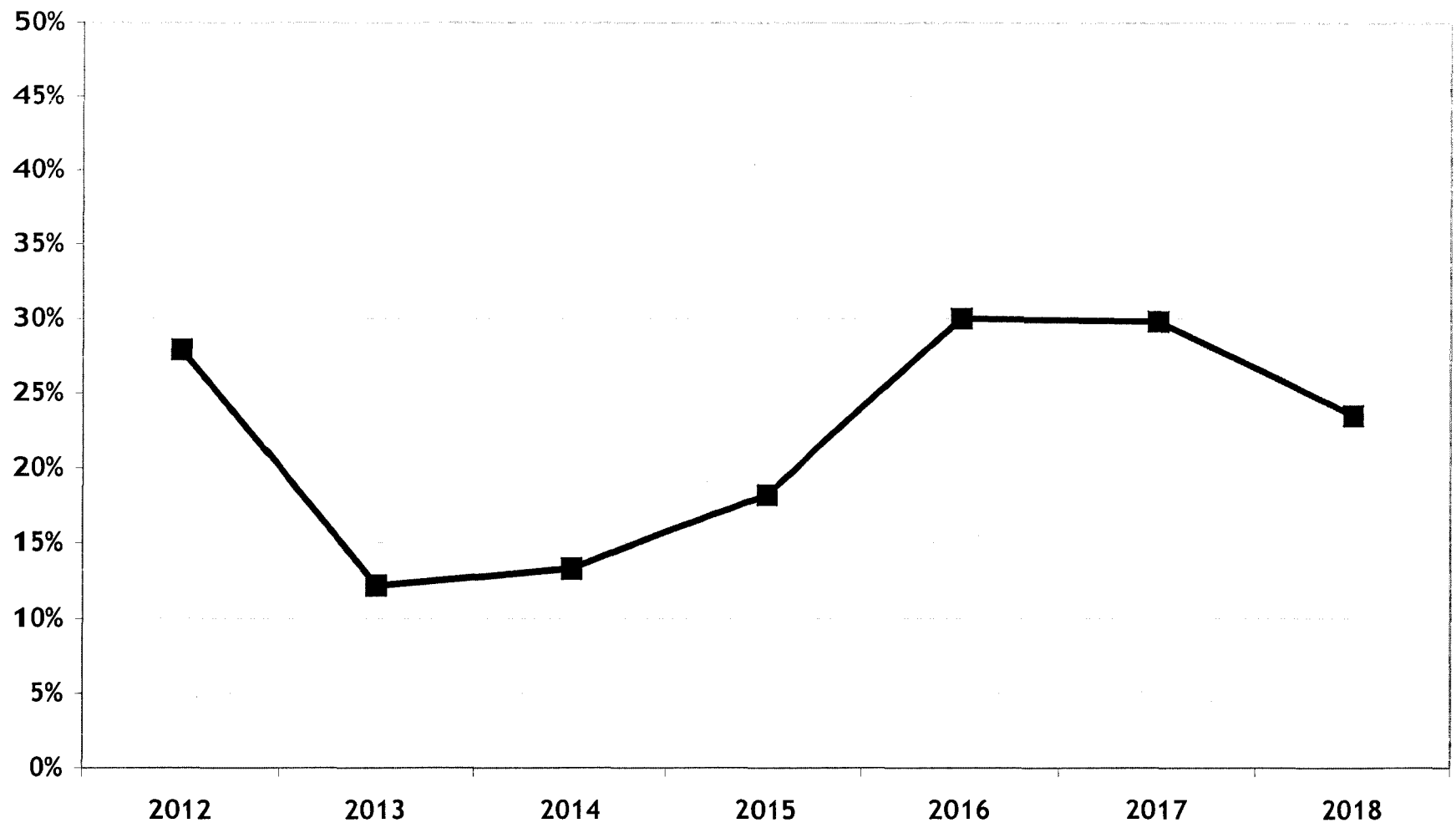
# Financial Ratio (Sources & Uses)

— Debt Coverage Ratio - All Bonded Debt \*



## % Cash Funding of CIP

■ % Cash Financing of CIP



# Attachment F

## Residential Bill (7,788 gallons water / 6,178 wastewater, ICL, Standard)

	Adopted	Budget	Projected	Projected	Projected	Projected
Monthly Residential Bill	2012	2013	2014	2015	2016	2017
Water Supply	\$ 9.05	\$ 9.29	\$ 11.72	\$ 13.09	\$ 13.78	\$ 16.27
Water Delivery	\$ 15.29	\$ 15.29	\$ 16.00	\$ 17.02	\$ 17.82	\$ 18.32
Wastewater	\$ 22.11	\$ 25.75	\$ 29.38	\$ 32.14	\$ 34.36	\$ 35.46
<b>Total</b>	<b>\$ 46.45</b>	<b>\$ 50.33</b>	<b>\$ 57.10</b>	<b>\$ 62.25</b>	<b>\$ 65.96</b>	<b>\$ 70.05</b>
Increase		\$ 3.88	\$ 6.77	\$ 5.15	\$ 3.71	\$ 4.09
Increase %		8.4%	13.5%	9.0%	6.0%	6.2%
EAA Fee	\$ 3.04	\$ 2.67	\$ 2.67	\$ 2.67	\$ 2.67	\$ 2.67
State-Imposed TCEQ Fee	\$ 0.23	\$ 0.22	\$ 0.22	\$ 0.22	\$ 0.22	\$ 0.22
<b>Total With EAA / TCEQ Fees</b>	<b>\$ 49.72</b>	<b>\$ 53.22</b>	<b>\$ 59.99</b>	<b>\$ 65.14</b>	<b>\$ 68.85</b>	<b>\$ 72.94</b>
Increase % with EAA / TCEQ Fees		7.0%	12.7%	8.6%	5.7%	5.9%

## Attachment G

### Water and Sewer

	<b>Income at or below 50% Poverty</b>	<b>Income at or below 75% Poverty</b>	<b>Income at or below 100% Poverty</b>	<b>Income at or below 125% Poverty</b>
2012 Discount	\$ 11.80	\$ 8.25	\$ 5.90	\$ 4.70
2013 Increase	\$ 1.17	\$ 0.82	\$ 0.59	\$ 0.47
2013 Discount	\$ 12.97	\$ 9.07	\$ 6.49	\$ 5.17

### Water Only

	<b>Income at or below 50% Poverty</b>	<b>Income at or below 75% Poverty</b>	<b>Income at or below 100% Poverty</b>	<b>Income at or below 125% Poverty</b>
2012 Discount	\$ 6.36	\$ 4.44	\$ 3.61	\$ 3.50
2013 Increase	\$ 0.32	\$ 0.23	\$ -	\$ -
2013 Discount	\$ 6.68	\$ 4.67	\$ 3.61	\$ 3.50

### Sewer Only

	<b>Income at or below 50% Poverty</b>	<b>Income at or below 75% Poverty</b>	<b>Income at or below 100% Poverty</b>	<b>Income at or below 125% Poverty</b>
2012 Discount	\$ 5.55	\$ 4.23	\$ 3.61	\$ 3.50
2013 Increase	\$ 0.74	\$ 0.17	\$ -	\$ -
2013 Discount	\$ 6.29	\$ 4.40	\$ 3.61	\$ 3.50



# **EXHIBIT “C”**

# Water 2012 Management Plan



San  
Antonio  
Water  
System



# Contents

- 3 Executive Summary
- 10 Planning Background
- 15 Methodology
- 19 Water Demand Planning
- 24 Evaluation of Supply & Demand
- 28 Planned Projects 2012-2020
- 34 Planned Projects for the Mid Term (2021-2039)
- 36 Conceptual Projects for the Long Term (2040-2070)
- 37 Previous Projects Not Currently Feasible
- 38 Contribution to Diversification
- 39 Financial Analysis
- 44 Public Outreach
- 45 Summary





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## Executive Summary

### A Proven Plan

San Antonio's Water Management Plan is a proven, successful tool. Since the city instituted a policy to reduce its reliance on the Edwards Aquifer, San Antonians have nurtured a nationally recognized conservation ethic and invested wisely in diversified sources of water.

The 2012 update to the Water Management Plan continues to strike a productive balance between water conservation and new supplies. By implementing the plan, San Antonio Water System customers will incrementally save more than 16,500 ac-ft of water per year by 2020 through refocused conservation efforts, and acquire 112,500 ac-ft of additional supplies by 2026. This effort will meet the growing demands of 20,000 new residents per year.

The plan builds on the success of prior efforts. Through thoughtful planning and investment, San Antonio now boasts:

- The best water conservation program in the U.S.
- The nation's largest direct recycled water system.
- The third largest underground storage facility in the country.

In addition, non-Edwards water sources include supplies from Canyon Lake, the Trinity Aquifer, the Carrizo Aquifer in Bexar County, the Carrizo Aquifer in Gonzales County and numerous others. Together, these accomplishments make San Antonio water's most resourceful city.

*Thanks to thoughtful, strategic water planning, San Antonio's dependence on the Edwards Aquifer continues to decrease.*



*Edwards / diversified supply during the worst year of a repeat of the drought of record.*

## Overcoming Challenges

The implementation of San Antonio’s water strategy has not always been easy, but the city has overcome numerous obstacles and challenges to securing water supplies to meet future demand.

### Endangered species protection

In the early 1990s a successful federal environmental lawsuit resulted in limits on pumping from the Edwards Aquifer. Two decades later, San Antonio worked with numerous stakeholders from around the region to develop a Habitat Conservation Plan that protects the spring habitats of several endangered species and provides San Antonio with certainty of supply from the Edwards Aquifer.

### Regulatory restrictions

In attempts to develop new non-Edwards water projects, San Antonio faces regulatory hurdles from water districts that oppose pumping from neighboring aquifers. These barriers have resulted in water supply projects that require the investment of more time and resources, but 2013 will see the largest non-Edwards supply in SAWS history come on line.

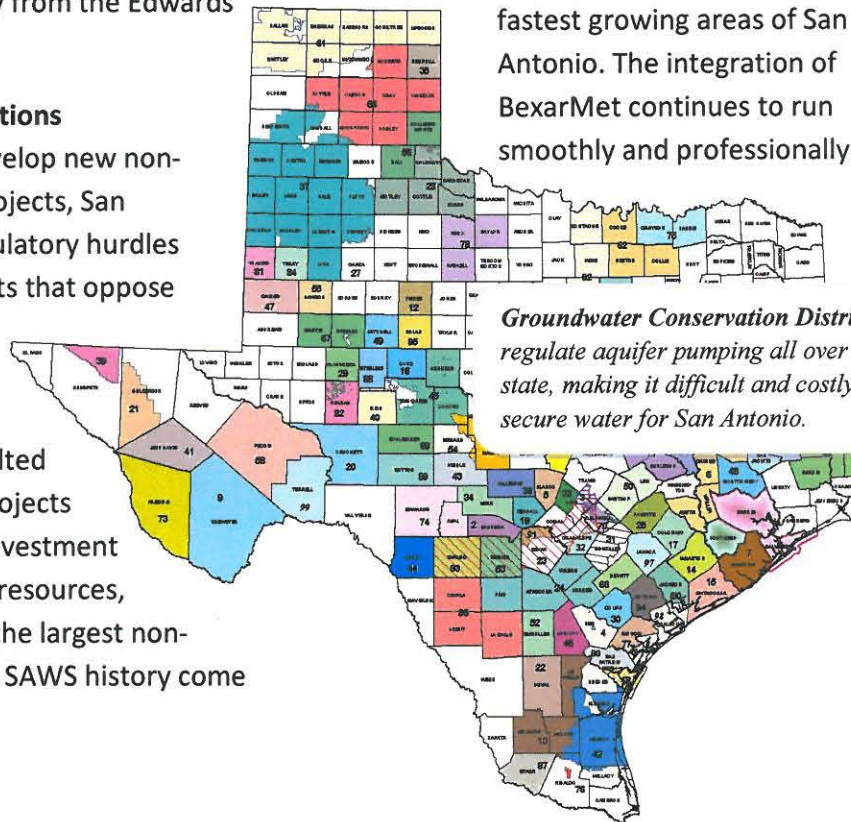
### Weather extremes

Prolonged periods of drought are a way of life in San Antonio. However, San Antonio’s water supply was more than sufficient to navigate the hottest, driest year in recorded Texas history in 2011. The availability of stored supplies from the city’s underground reservoir allowed San Antonio to avoid strict lawn sprinkler restrictions in 2011 and 2012.

### BexarMet integration

At the request of the state legislature, San Antonio Water System assumed service for Bexar Metropolitan Water District in early 2012. Adding the demands of a utility the size of Corpus Christi, Texas, poses the added challenge of acquiring additional

supplies for some of the fastest growing areas of San Antonio. The integration of BexarMet continues to run smoothly and professionally.



*Groundwater Conservation Districts regulate aquifer pumping all over the state, making it difficult and costly to secure water for San Antonio.*

## Strategic Elements of the Plan

Through a thoughtful and strategic process, SAWS has developed a well-balanced plan that will ensure the availability of water for a growing population, even in the face of the worst known drought conditions. By implementing the plan, San Antonio will avoid water shortages through 2040. The strategic elements include:

### Continued commitment to water conservation

Water Conservation is a year-round approach to improve the efficiency of water use. In 2011, a historically dry year, San Antonio recorded water use of 143 gallons per capita per day (GPCD). The Plan calls for

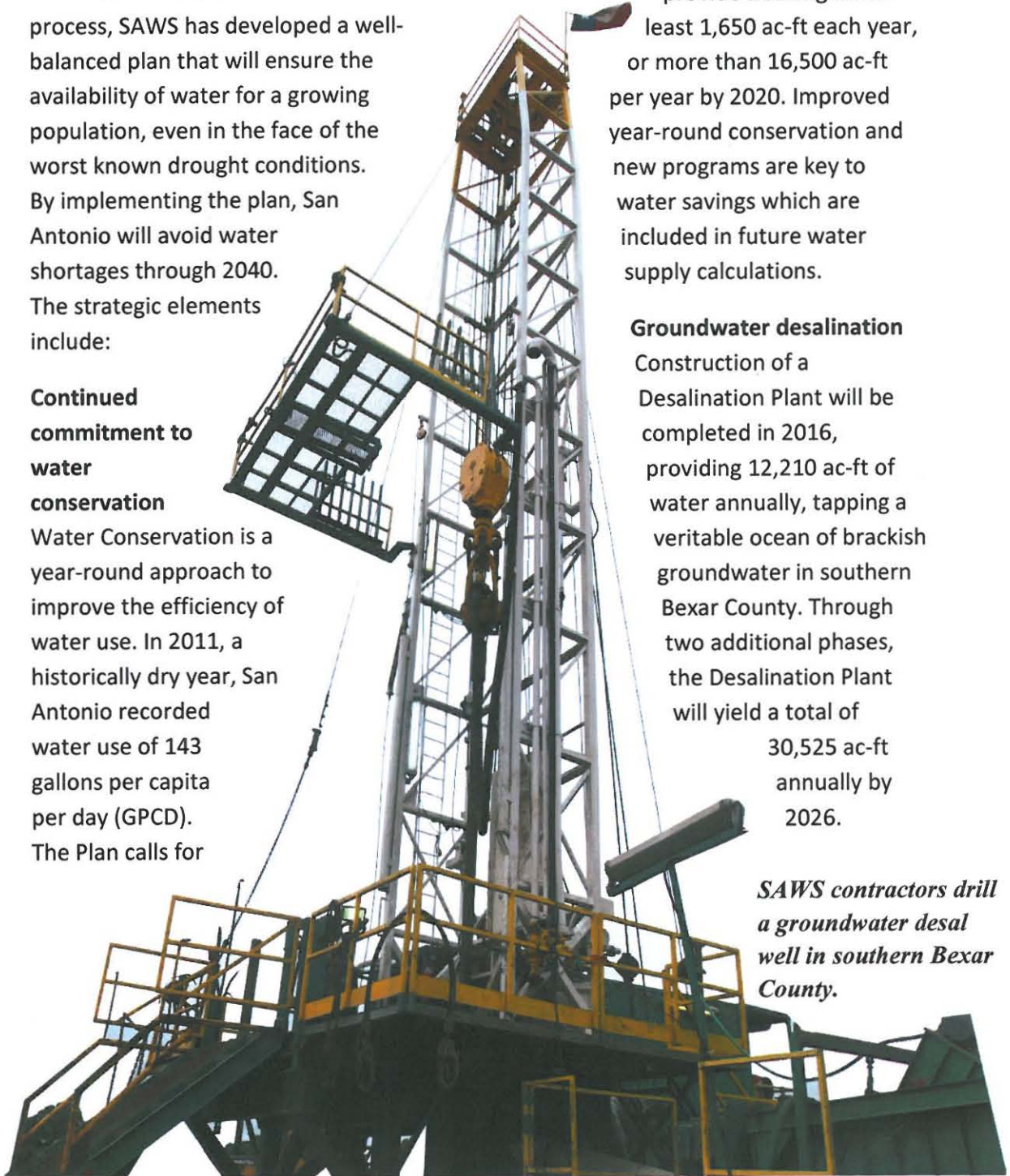
a reduction of GPCD to 135. Through a programmatic effort to improve the efficiency of outdoor watering for lawns and landscapes, water conservation will

provide a savings of at least 1,650 ac-ft each year, or more than 16,500 ac-ft per year by 2020. Improved year-round conservation and new programs are key to water savings which are included in future water supply calculations.

### Groundwater desalination

Construction of a Desalination Plant will be completed in 2016, providing 12,210 ac-ft of water annually, tapping a veritable ocean of brackish groundwater in southern Bexar County. Through two additional phases, the Desalination Plant will yield a total of 30,525 ac-ft annually by 2026.

*SAWS contractors drill a groundwater desal well in southern Bexar County.*



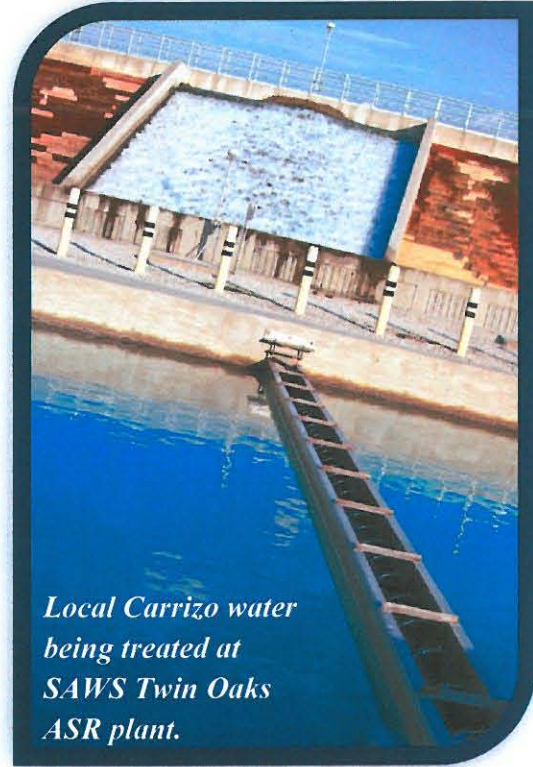


**Expansion of Local Carrizo Aquifer supply**

San Antonio currently pumps Carrizo Aquifer water in southern Bexar County. However, pumping can be expanded to yield an additional 7,000 ac-ft of annual supply by 2017. Through two additional phases, the local Carrizo Aquifer will yield a total of 21,000 ac-ft by 2026.

**Additional Edwards Aquifer rights**

The market for Edwards Aquifer water rights is still active, and SAWS has identified 10,900 ac-ft of additional supply available. The permitted supplies already contain environmental protections for the endangered species habitats in the Comal and San Marcos Springs.



Planned Supply Source	Action
<b>Additional Edwards Rights</b>	10,900 ac-ft acquired
<b>Brackish Groundwater Desal Plant</b>	12,210 ac-ft/yr on line in 2016 24,420 ac-ft/yr in 2021 30,525 ac-ft/yr in 2026
<b>Expanded Local Carrizo</b>	7,000 ac-ft/yr on line in 2017 14,000 ac-ft/yr in 2022 21,000 ac-ft/yr in 2026
<b>Regional Water Supply Project</b>	Up to 50,000 ac-ft/yr starting in 2018
<b>Demand Reduction</b>	
<ul style="list-style-type: none"> <li>Water savings from programs to reduce dry year GPCD to 135</li> </ul>	16,500 ac-ft/yr by 2020

**Regional water supply project**

In a unique effort to solicit offers for water supplies from around the state, SAWS received nine proposals from private water developers to bring water to San Antonio. SAWS anticipates selecting the best proposal and committing to an agreement that will provide San Antonio with up to 50,000 ac-ft of annual water supply by 2018.

**Water supply pipeline**

An additional pipeline is needed to move new and existing supplies from southern Bexar County into San Antonio. While utilizing an existing pipeline to store unused water in our underground reservoir, the new pipeline will be capable of simultaneously moving water from the desalination plant and the local Carrizo Aquifer to high growth areas in western San Antonio.



*A new pipeline would bring water from southern Bexar County to the high growth areas of San Antonio.*





## A Real Solution is at Hand

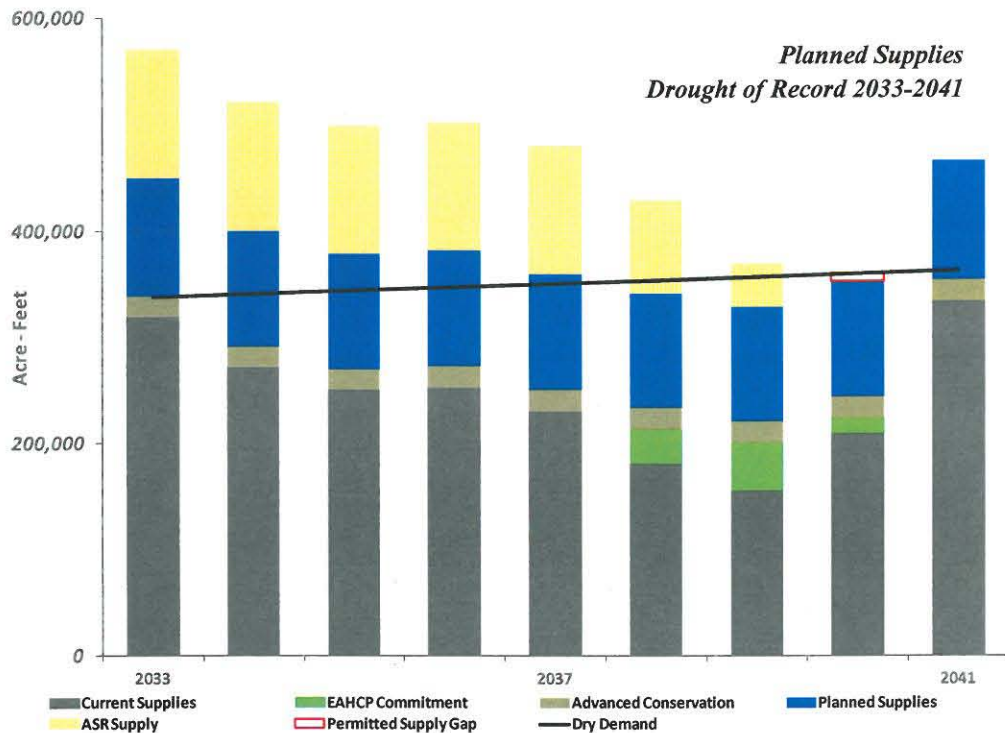
Charged with providing sustainable affordable water services, SAWS has already invested wisely in the development of new supplies. Building on a track record of success, San Antonio Water System has identified additional supplies to meet the city's future demands through 2040.

By investing in these supplies today, San Antonio can avoid the limited availability of sources and increased costs in the future. In the wake of the hottest, driest year in recorded history, Texans have grown keenly aware of the importance of water planning.

Competition for water for growing cities, agriculture, industry and power will only increase future water costs.

Population growth in San Antonio will add to the water requirements of a dynamic community that strives to attract new businesses and jobs while maintaining a high quality of life. The appeal of a vibrant city is directly related to the availability of water.

## The appeal of a vibrant city is directly related to the availability of water.



## ***Understanding Common Terms and Conventions Used***

For ease of understanding, the *2012 Water Management Plan* has been broken down into bracketed time periods described as Short Term, Mid Term and Long Term Programs.

The simplified supply and demand chart referenced above in this Executive Summary is for the Mid Term Program (2020-2040), but more detailed supply and demand charts for each period can be found in the relevant Sections of the full plan.

The planned Advanced Conservation measures are shown (tan) and the planned water supply projects (various colors) are combined for simplicity of display into a single series (blue). Additional charts with more details are available later in this plan. All current supplies are subjected to the appropriate physical and regulatory assumptions of the particular supply (gray). This includes supplies from the Edwards Aquifer and current non-Edwards supplies. More detailed description of each supply is provided later in the plan.

Unlike other water supplies in this plan, Aquifer Storage and Recovery (ASR) is not an annual supply that renews with the passing of the calendar. Rather, it is a supply reserve of finite supply whose yield is based on artificial recharge as opposed to natural cycles or regulatory management (soft yellow). The ASR plays an important role in the Edwards Aquifer Habitat Conservation Plan (EAHCP – light green).

Unlike in past water plans, the advanced conservation measures contemplated in this plan are identified as a supply, rather than an adjustment to the demand line. In this way, the community can more easily understand the magnitude of water supply development (and cost) avoidance provided by water demand management measures. This follows the convention of Texas' State Water Plan.

Keeping the color coding and major assumptions in mind will help with the interpretation of supply and demand charts used throughout this document.

## Planning Background

San Antonio Water System (SAWS) has a deep history of planning for future water needs. In 1994, SAWS facilitated a citizens committee to address San Antonio's rapidly changing water resources situation. In 1996 a plan was developed to maintain a fifty-year supply with the feedback of various stakeholder groups in both the community and region at large. 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 Resources Plan. On November 5, 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, thus establishing the guiding principles for water resource development and defining SAWS leadership role in the protection and development of water supplies for the San Antonio area. Those water plans were subsequently updated with the *Water Resource Plan Update 2005* and the *2009 Water Management Plan Update (2009 Update)*.

**The 2012 Water Management Plan addresses many significant changes that have occurred since the adoption of the 2009 Update.**

While the plans are typically developed approximately every five years, there have been numerous changes since 2009, including but not limited to: 2010 census data, the integration of the service areas and ratepayers of the former BMWD, now SAWS District Special Project (DSP), the resolution of the Lower Colorado River Authority (LCRA)-SAWS Water Supply Project, increased storage realized in the Aquifer Storage and Recovery (ASR) facility, the Edwards Aquifer Habitat Conservation Plan (EAHCP) resulting from the stakeholder-driven Edwards Aquifer Recovery Implementation Program (EARIP), changes to the Regional Carrizo Water Supply Program and the Brackish Groundwater Desalination Program, as well as the Regional Water Supply Project / Request for Competitive Sealed Proposals (RFCSP). Many of these events alone would be reason enough for an update to the previous plan, and when taken as a whole they constitute

grounds for the foundation of a new plan, the *2012 Water Management Plan*, for water's most resourceful city.

The *2012 Water Management Plan* addresses many of these significant changes that have occurred in the SAWS service area and throughout the region since the adoption of the *2009 Update*.

Some things that haven't changed in this plan are: SAWS role as the region's advocate for the protection and development of water resources, and the community's leader in the development of water supplies for present and future ratepayers; dedication to water use efficiency and conservation that promotes economic growth; continually updating and improving SAWS analytical capabilities; promoting community development; and thoroughly-considering incremental investments in SAWS' mission of providing **Sustainable, Affordable Water Services**.

The leadership provided by the SAWS Board of Trustees and SAWS management recognized the significant changes that had occurred in a relatively short period of time since the *2009 Water Management Plan Update* was adopted. On November 15, 2010 and February 1, 2011, SAWS amended the *2009 Water Management Plan Update* to recognize the significant progress in water resource investments and projects, namely the Regional Carrizo Water Supply Program. In April 2012, the *2012 Water Management Plan* Task Force began a critical review of the successes and changing circumstances that affected the *2009 Water Management Plan Update* from the regulatory, technical, environmental, financial, social, opportunity and risk, and supply-demand management perspectives.

The Task Force consisted of:

- Robert R. Puente, President/CEO
- Kelley Neumann, P.E., Senior Vice President of Strategic Resources
- Doug Evanson, Senior Vice President of Financial Services and Chief Financial Officer
- Charles E. Ahrens, Vice President, Water Resources and Conservation
- Greg Flores, Vice President, Public Affairs
- Steve Kosub, Esq., Senior Water Resources Counsel
- Hope E. Wells, Esq., Corporate Counsel

The Task Force recognizes the expertise, significant contributions, and assistance of a number of SAWS staff. Special acknowledgement is extended to:

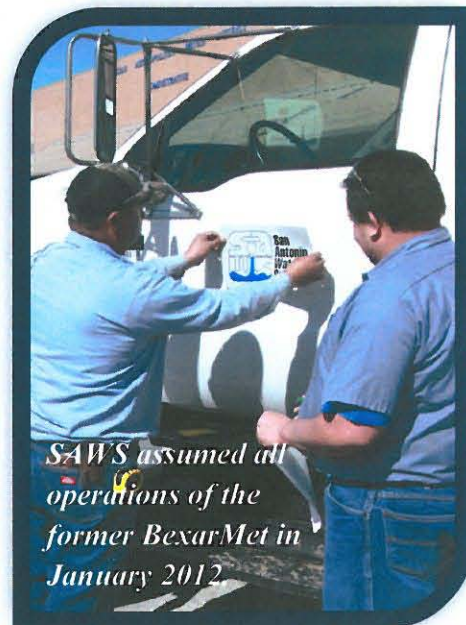
- Celina Alvarez
- Steven Bereyso
- Kenneth Brooks
- Steve Clouse
- Adam Conner
- Dan Crowley
- Richard Donat
- Lance Freeman
- Elliott Fry
- Michael Graef
- Allison Greer
- Byron Gipson
- Lisa Guardiola
- Gary Guy
- Karen Guz
- Lou Lendman
- Carlos Mendoza
- Dana Nichols
- Paul Robinson
- Patrick Shriver
- Steven Siebert
- Darren Thompson
- Stephen Turner
- Brian Wilkie

As well as to the staffs of the Public Affairs, Conservation, Water Resources, and Engineering departments.

### ***Basis for this Revision of the 2009 Water Management Plan Update and 2009 Water Management Plan Update Adjustment***

In the period of time between 2009 and 2012, SAWS and the wider region witnessed numerous developments that changed the elemental building blocks of the 2009 Update, such as:

- **Bexar Metropolitan Water District –**  
On November 8, 2011, the ratepayers of the former Bexar Metropolitan Water District (BMWD) voted to incorporate the District into SAWS. In the first quarter of 2012, the final state and federal clearances were obtained, and SAWS assumed responsibility for all aspects of BMWD. BMWD customers became SAWS customers under the SAWS District Special Project (DSP) and will be integrated into the SAWS



infrastructure, rate schedule, and water resource portfolio. This *2012 Water Management Plan* includes DSP's existing water supplies and the projected growing water demand of DSP service areas, in addition to the SAWS service areas. In this plan, the term SAWS is used inclusive of SAWS and DSP unless context indicates otherwise.

- **Population** – The SAWS service area population was extrapolated based on a relationship between persons per active residential connection as of the 2000 Census for use in the *2009 Update*. This factor is used to estimate the population served by SAWS and has since improved through the application of Geographic Information System (GIS) analysis and improved accuracy in the count of apartment units. SAWS was able to recalibrate its estimates following the 2010 decennial census. Additionally, *population estimates and future projections* for other areas were incorporated into this *2012 Water Management Plan*. These include adding the area served by DSP and removing the area in the application by SAWS for a Certificate of Convenience and Necessity area in eastern Medina County and northwestern Bexar County.
- **Changes in Demand** – Future demand estimates are based on past and current demand. The factor used is gallons-per-capita-per-day (GPCD) (total amount of drinking water produced for residential, commercial, and institutional usage divided by residential population). SAWS is continually improving measurements of production as well as population. Variability in demand (GPCD) has also been influenced by improvements in the way SAWS measures its production of water and sales to customers, weather variability, shifting customer use patterns by sector and both indoor and outdoor, and the addition of customers from the DSP.
- **Edwards Aquifer Recovery Implementation Program (EARIP)** – The EARIP process was a four year effort that culminated in the adoption of an EAHCP and supporting documents by the SAWS Board of Trustees, other Applicants, and a remarkably diverse set of stakeholders and interest group representatives from throughout the Edwards Aquifer region. The EAHCP is intended to protect Edwards Aquifer users as well as federally-listed threatened and endangered species during droughts. Certain elements in the EAHCP commit SAWS to operate the ASR system in a prescribed-yet-flexible manner should record-breaking drought conditions afflict the Edwards Aquifer region during the term of the EAHCP and to store regionally-leased water in the ASR outside of



droughts. The EAHCP also prescribes a change to the Demand Management/ Critical Period Management regimen instituted by Texas' Senate Bill 3 (2007) through the addition of a fifth stage of critical period withdrawal reductions on all Edwards Aquifer users. Finally, the EAHCP details an initial commitment of Edwards Aquifer supply permits (8,000 acre-feet per year from SAWS current inventory) towards a Regional Conservation Program administered by the Edwards Aquifer Authority (EAA) and designed to assist municipalities and industries in implementing water conservation measures. The *2012 Water Management Plan* incorporates the ASR commitment, the initial commitment to the Regional Conservation Program, and the addition of a fifth Stage of withdrawal reductions to be instituted region-wide only as a last resort measure, or as a back-up for the protective measures identified in the EAHCP.

**Regulatory / Legal** – In the period of time since the adoption of the *2009 Update*, groundwater districts, Groundwater Management Areas (GMAs), and the Texas Water Development Board (TWDB) have been cooperatively developing and evaluating Desired Future Conditions (DFCs) for the state's aquifers. SAWS has evaluated its planned groundwater supply projects in light of the relevant DFCs and the *2012 Water Management Plan* incorporates these evaluations. In addition, the Environmental Flows Allocation Process has proceeded through rule-making for several Texas river basins, including the Guadalupe-San Antonio River basin.

**Technical** – Since 2009, SAWS has conducted a number of studies on planned water supply projects. Tests on production and injection wells and a pilot reverse-osmosis treatment plant for the Brackish Groundwater Desalination Program have yielded valuable information on Wilcox Aquifer characteristics, potential plant operations, water quality, membrane performance, and many other items. SAWS has also sponsored studies of the Carrizo and Wilcox Aquifers in southern Bexar County in light of the adopted DFC for those aquifers, existing and planned ASR operations, Brackish Groundwater Desalination Program plans, and identified potential for operational synergies between SAWS and DSP facilities in the vicinity. This study identified potential resources which complement SAWS activities and plans in the area (see **Planned Projects for 2012-2020**). SAWS has continued to store Edwards Aquifer water when possible and recover that water when necessary using the ASR facility, generating new understanding of aquifer storage disposition, water quality, storage capacity, and

integration of recovered water with existing and planned infrastructure.

- **Regional Cooperation** – An innovative and historic regional partnership between SAWS, the City of Schertz, the City of Seguin, and the Schertz-Seguin Local Governmental Corporation (SSLGC) was signed in February 2011 for the purchase, production, and delivery of the largest non-Edwards supply in SAWS history – the Regional Carrizo Water Supply Program. By working together, each of the partners will realize cost savings. This partnership with the SSLGC will allow SAWS to utilize the SSLGC’s infrastructure to transport water from Gonzales County to San Antonio. Instead of building a new pipeline, SAWS will rent available capacity in an existing pipeline owned and operated by SSLGC, saving SAWS ratepayers over \$80 million. This partnership has reduced the cost per acre-foot of the Regional Carrizo Water Supply Program by almost 30%. In addition to the water produced with its owned permits, SAWS will be purchasing water that is presently surplus to the current needs of its regional neighbors such as the SSLGC and the Gonzales County Water Supply Corporation (WSC), effectively investing in neighboring communities by becoming a paying customer of these utilities and reducing the partners’ water costs by over 35%.

This report summarizes the deliberations and results of the *2012 Water Management Plan* Task Force, which include: population projections, expected water supply availability during extreme drought, prospects for additional supply development, present and projected water demands, drought demand management, and Advanced Conservation programs. Finally, this *2012 Water Management Plan* will chart the path that SAWS plans to pursue in the short term that will contribute to positioning this utility to meet the long-term needs of future San Antonio residents through 2070.

## Methodology

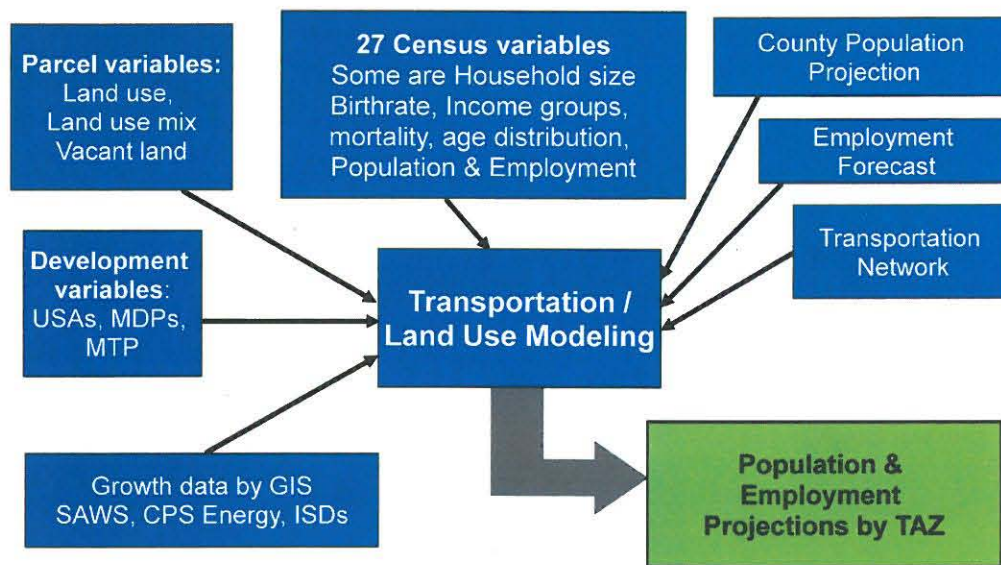
This *2012 Water Management Plan* Task Force used a similar approach to the *2005 Plan* and *2009 Update* efforts. The *2012 Water Management Plan* was phased as follows:

### Population Planning

The SAWS population is calibrated with the decennial U.S. Census. Each intervening years’ population is estimated based upon an assumed relationship between active residential water connections and the Census population. Population estimates are the

initial step. Estimates provide factors for (1) future assumptions and (2) growth rates. The estimate is the current population of people served by SAWS and the DSP, and is based on the U.S. Census. The factors generated by SAWS are the GPCD factor and the active water connection to population factor. The active water connection to population factor considers single family dwellings, apartments, and occupancy rates – the factor may need adjustment over time depending on the dominant residential construction trend. Future population is based on projections by the Texas State Data Center (TSDC) and TWDB, which is then allocated throughout the SAWS service area based on a number of Census, land use, parcel, development, and other variables (see Figure 1).

**Figure 1: Factors in Population Projection Allocation**



## Population Estimate Process

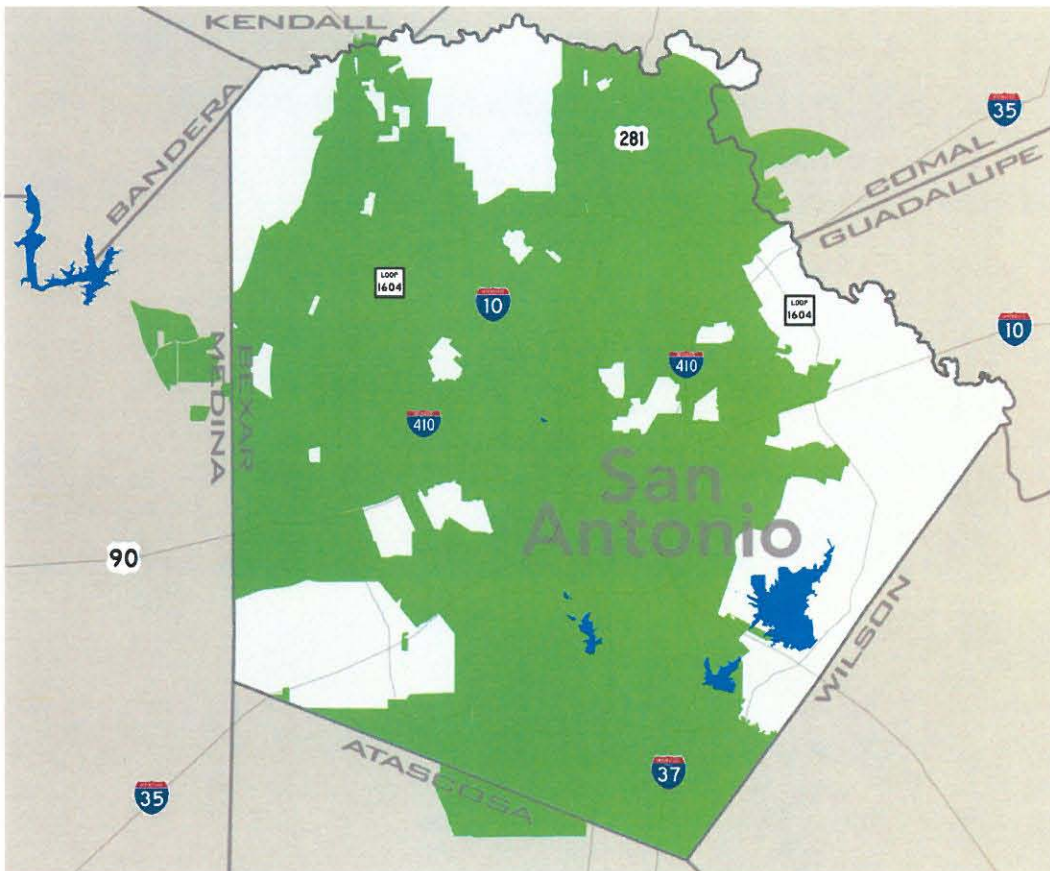
The population estimate methodology is based on the smallest U.S. Census data area, census blocks. There are approximately 27,000 blocks in the SAWS service area. Most of Bexar County is served by SAWS (see Figure 2); however, because of irregular boundaries, the census blocks and the SAWS service area may not coincide (approximately 500 blocks). These blocks must be reviewed more critically and the population allocated. Active connections, location of SAWS services, aerial imagery, and known private wells are all used to correctly allocate the population.

## Population Projection Process

Significant resources are invested in future population projections by analysts at various levels of local, regional, state, and federal governments. These professionals conduct reviews and analyses of present land-use variables, development variables, other Census variables, economic forecasts, existing and planned transportation networks, and transportation analysis zones (TAZs) County-level population projections are provided by the TSDC, adopted by the TWDB, and used for allocation in Bexar County. These projections are the future population projections used by SAWS for water supply planning purposes. Within Bexar County, the allocation process includes all of the factors shown in **Figure 1**.

At the time of the Task Force’s deliberations, current projections based on 2010 Census data had not yet been fully prepared. Best available data from previous TWDB projections was used.

**Figure 2: SAWS and DSP Combined Service Area**



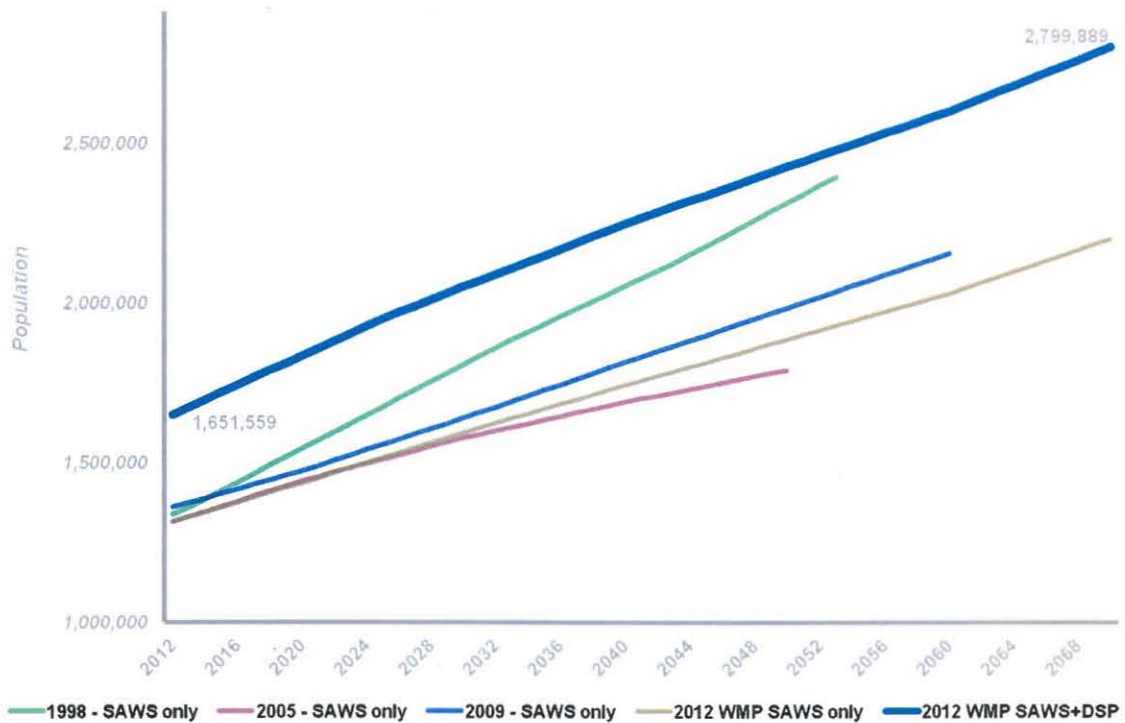


In the meantime, there are numerous means of validating the selected population projection. The growth rate trajectory selected appears to be consistent with recent empirical data. Recent declines in growth rates due to overall lower migration and birth rates are within tolerance levels of the projections. The approach undertaken by SAWS utilizes the best available information and is reasonable when compared to other available future population scenarios.

### Population Projections

The estimated population of the SAWS service area (including the DSP areas) is 1,651,559 people. By 2070, the population is projected to be 2,799,889 people (see **Figure 3**). These projections are routinely assessed. Additional analysis is planned for growth within the DSP area, growth impacts from business cycles (such as the Eagleford Shale oil and gas activities, and infill development), and changes in households. In the 2040-2070 portion of the planning horizon, population growth rates in the SAWS service area are expected to be lower than growth rates in areas now served by DSP.

**Figure 3: Comparison of past and current plan population projections**



## Additional Population Considerations

Guidance on population projections from the TSDC, TWDB, Alamo Area Council of Governments, and the Metropolitan Planning Organization are expected in the near future following the adoption of this plan. As this data becomes available, SAWS may consider a *2012 Water Management Plan* adjustment or incorporate this information in future plan updates.

Typically, population is defined as residents living in the service area for the previous six months. This includes college, military, other group quarters, and detention center populations. Not included are tourists and out-of-service-area commuter employees. Senate Bill (SB) 181 (2011) recognized that temporary populations are significant water users. Temporary populations, such as tourists, commuters, and seasonal residents were identified as factors that influence a utility's population and its total water demand. The TWDB was directed by SB 181 (2011) to issue guidance on, among other things, temporary populations. SAWS conducted a preliminary review of temporary populations for the *2012 Water Management Plan*. Utilizing data from the San Antonio Convention & Visitors Bureau and the San Antonio-Bexar County Metropolitan Planning Organization, SAWS identified the primary temporary populations for its service area as tourism and commuters. However, until standardized formal guidance on the methodology for considering temporary populations is established by the TWDB, the *2012 Water Management Plan* will utilize only permanent residents for population and demand projections.

## Water Demand Planning

Since its inception, the SAWS Water Conservation Program and the water saved through the programming deployed by SAWS has been considered among the best sources of water for San Antonio. The role of water conservation in planning for future water demand cannot be overstated: water that is not used today is water that is available tomorrow and that the community does not need to immediately secure.

Water conservation strategies have been included in every *Water Management Plan* developed by SAWS. In addition to conservation strategies, drought management strategies have been included as an inexpensive way to defer short term supply needs.

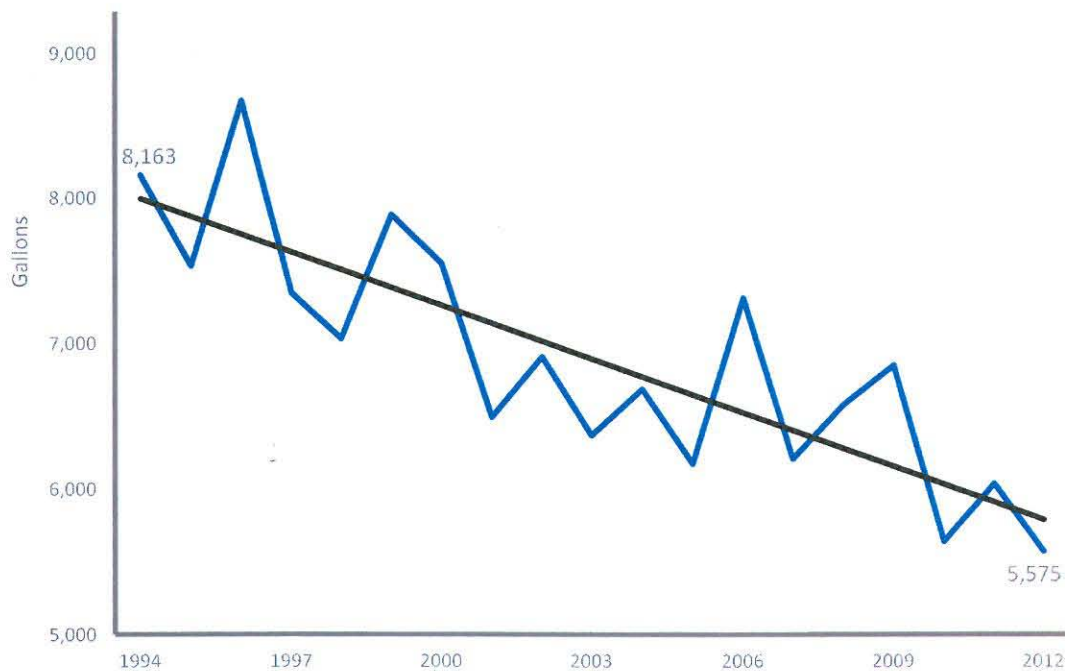


One common factor used when measuring water use and conservation is GPCD. The method of calculating GPCD is often customized by and for each community. This makes it difficult to compare GPCDs from one community to another and sometimes from one *Water Management Plan* to another. It is important to understand the drawbacks of engaging in what can appear on the surface to be simple comparisons. Many variables are part of the GPCD factor, they vary community by community – there is no uniform approach or set of standards – and identifying a common set of standards for GPCD as a tool remains a statewide work-in-progress. SAWS determines GPCD by dividing total potable water production (excluding wholesale connections) by estimated population (excluding wholesale user populations).

It is important to remain mindful that while the factors that determine GPCD (estimated population or potable water production) may cause the GPCD number itself to change, the commitment of SAWS to effective water conservation has not wavered.

SAWS has a proven track record of reducing water use over time (see **Figure 4**), and will continue to make improvements.

**Figure 4: Monthly Average Residential Indoor (winter) Usage in Gallons 1994 – 2012**



## Water Demand Planning Goals

The San Antonio region has experienced moderate to severe drought conditions in 2008, 2009, and 2011, with 2011 determined to be the hottest, driest year in Texas in

modern times. In 2011, with drought restrictions in place and a robust conservation program continuing, SAWS customers and the customers of the DSP used more water than in previous dry years, resulting in a usage of 143 GPCD<sup>(1)</sup>. This is the current demonstrated baseline of water use for the community during an extreme dry year with moderate drought restrictions.

The goal of this *2012 Water Management Plan* is to reduce dry year demand from the present 143 GPCD to 135 GPCD by the year 2020. Each single incremental reduction in GPCD is enough water for 10,000 people, or a cumulative 1,644 acre-feet per year in dry-year savings.

One of the most widely quoted aspects of the *2009 Update* was the goal of 116 GPCD by the year 2016. The current dry year goal described in this *2012 Water Management Plan* is not significantly different. The goal of 116 GPCD by the year 2016 reflected normal year demand, with normal years being characterized by well-timed, effective precipitation during the growing season. Less well-understood about the *2009 Update* was that the goal for a dry year was 126 GPCD by the year 2016.

The 2009 GPCD goals were developed using an estimated population based on updated factors of population-per-residential-connection to estimate population for years between the decennial Census counts using the annually-updated number of active residential water meters (connections). The publication of the 2010 Census and SAWS efforts in obtaining a more accurate count of the number of multifamily residential units in the SAWS service area revealed that the population-per-residential-connection factor had been over-estimated from the Census accounting of population. During the same time period, production meters were updated with measuring tools capable of greater accuracy. As a result, the population-per-residential-connection factor was updated, the more accurate production water meters, and the resulting refined estimated population for 2011 (as well as that year's 143 GPCD) was used to compute water demand, and develop the water demand planning goals, for the years 2012 – 2020.

More accurate population estimates (revealing less population than previously estimated in 2011) results in a higher number for GPCD even when the same volume of water is actually used. These data refinements account for the adjustment in the GPCD goals.

<sup>(1)</sup> 143 GPCD was determined using the refined SAWS population and potable water production in combination with 2011 data from the DSP. The 2011 GPCD for the SAWS area (excluding DSP) would be 149 GPCD. Future adjustments may be made based on refined population estimates and improved measurement accuracy for DSP.



## The Role of Drought Management (Restrictions)

An important distinction needs to be drawn between conservation and drought management.

Conservation programs and policies are:

- Set in place to address long-term water management goals.
- Applicable to all water users.
- Usually voluntary initially (may become requirements over time).
- Intended to provide incremental, year-round, permanent water savings.

Drought management measures are:

- Only implemented as necessary in a response to climactic conditions and accompanying regulatory requirements when an immediate cutback is necessary.
- Focused on discretionary water use.
- Enforced by mandatory rules.
- Temporary.
- Staged to reflect the severity of the climactic and regulatory conditions.

When drought management measures are in place, customers who have already implemented landscape design and discretionary usage management strategies appropriate to a drought prone region through the incentives and tools provided by SAWS conservation programs, the impact of drought management measures to those customers is reduced.

While this *2012 Water Management Plan* is largely driven by SAWS responsibility to comply with state regulations concerning pumping cutbacks of various levels (stages) of severity based on Edwards Aquifer index well levels and springflows, an important distinction can be made between these stages and the stages of drought management implemented by SAWS through City ordinances. Importantly, ordinances allow SAWS the flexibility to make recommendations to consider whether or not it is necessary to implement stages of drought management with limits more restrictive than Stage Two (i.e. Stages Three, or Four). Given the successful implementation of the water supply projects described in **Planned Projects**, beginning in 2018 SAWS *may* find it unnecessary to implement drought management measures with limits more restrictive than Stage Two, though the existing deeper drought restrictions will remain available by City Ordinance to deal with extenuating circumstances on a case-by-case basis.

### **Drought of Record**

The drought of 1950-1958 in Texas is accepted as the drought of record for water resource planning purposes for most areas. The *2012 Water Management Plan* utilizes the drought of record as the basis of supply availability and drought demand management measures.

Planning for a potential future recurrence of drought of record-like conditions is important for considering future water supply availability. The drought of record is examined to determine the *firm yield* of a water supply. For the *2012 Water Management Plan*, firm yield is defined by SAWS as the volume of water which can be produced from a defined source during a repeat of the drought of record under existing regulatory, legal, contractual, hydrological or infrastructure constraints. In this case, each water supply that SAWS uses is subjected to this definition using models of current supply management and instrumental records from this extended period of extreme hydrologic scarcity, resulting in an evaluation of each water supply's maximum volume of water available under each of the constraints (legal, infrastructure, etc.). Whichever constraint is the most restrictive determines the firm yield for that supply source.

The *2012 Water Management Plan* seeks to fill permitted supply gaps, with sufficient firm yield volumes of water supply or demand management measures, with the goal of successfully ensuring adequate water availability for:

- All indoor domestic use.
- All commercial, business, and industrial activity.
- Institutions such as schools and hospitals.

### **Permitted Supply Gaps during a Repeat of Drought of Record-like Conditions**

A permitted supply gap is determined when the estimated demand on water exceeds the estimated supply during any given year. Since most water resources are regulated and administered through an annual permit, it is typically the case that a shortfall of firm yield is regulatory in nature rather than a physical absence of water during extreme drought or any inadequacy in the infrastructure necessary to access that supply. Therefore, the term permitted supply gap should not be construed as an allowable or hydrological deficit of supplies – rather, it is a term chosen to specifically reflect the primarily regulatory nature of firm yield in South-Central Texas at this time.

## Evaluation of Supply & Demand:

### What is needed?

In order to evaluate the impact of drought to SAWS water supplies, each existing supply was evaluated. Each supply's contribution to firm yield was then assessed against projected annual dry-year demand to identify any potential permitted supply gaps.

#### Explanation of current supplies: SAWS & DSP

SAWS and the DSP presently have access to or will shortly be accessing the following existing water supplies or new water supply projects:

- Edwards Aquifer Authority (EAA) Permit** – The Edwards Aquifer has been, and will continue to remain, the cornerstone of San Antonio's water supply into the future. As of April 18, 2012, SAWS holds 294,530 acre-feet per year of EAA-permitted groundwater withdrawal rights. Of this amount, 249,254 acre-feet per year are owned permits issued to SAWS by the EAA, and approximately 45,250 acre-feet per year is leased to SAWS. 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 springflows. These cutbacks in any given year may range from 0% to 44%. Managing this wonderfully prolific, highly variable, and heavily regulated resource is one example of what makes San Antonio water's most resourceful city.



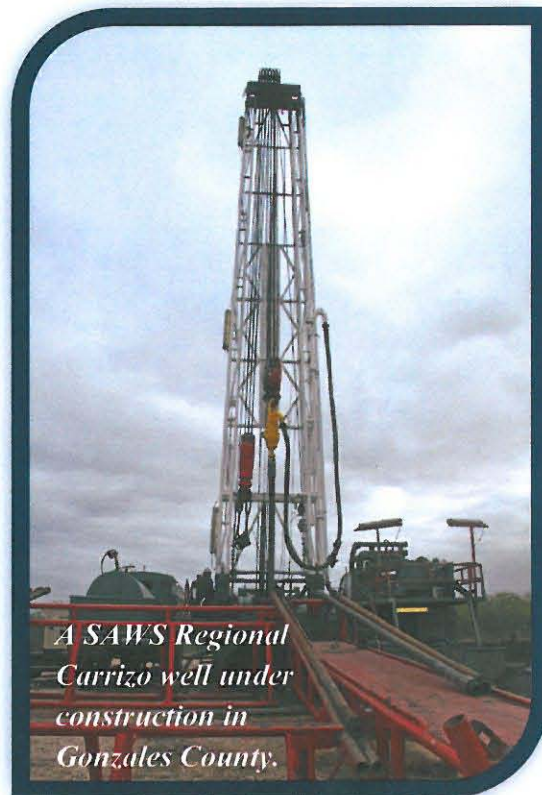
- Medina System Surface Water** – The DSP brought the first modern surface water to San Antonio in 2000 through an ultra-filtration membrane plant located on the Medina River in southwest Bexar County. DSP agreements with the Bexar-Medina-Atascosa Water Control & Improvement District #1 (BMA) gives DSP access to 19,974 acre-feet per year of water stored in Medina Lake and delivered to the treatment plant via the Medina River. DSP also owns and leases run-

of-river surface water rights on the Medina River in the amount of 9,214 acre-feet per year. Presently, the ultra-filtration membrane plant has treatment capacity of up to 13,000 acre-feet per year. However, given the drought-sensitivity of the lake, the limited size of the contributing watershed, as presently managed, firm-yield estimates during extreme droughts, such as the drought of record, is zero acre-feet per year. This is consistent with the South-Central Texas Regional Water Planning Group (Region L) and the TWDB State Water Plan.

- **Recycled Water** – The nation’s largest direct-use recycled water system is being recognized globally by water policymakers and distinguished water management experts for the innovative reuse of treated wastewater effluent for irrigation, industry, and the environment. Along with supporting the activities of the direct recycled water customers and the longstanding partnership with CPS Energy, the recycled water system has also brought new jobs, electricity, economic development, conservation of potable water supplies, recreation opportunities, and environmental restoration and maintenance – all while managing to conserve up to 75,000 acre-feet of potable water resources every year. The Recycled Water System is yet another illustration of the investments that have made San Antonio water’s most resourceful city.
- **Trinity Aquifer Projects** – A number of production facilities built by SAWS or the DSP utilize the Trinity Aquifer as a water resource to continue serving ratepayers in the high-growth areas of north-central San Antonio. The ability to serve this elevated portion of the service area with up to 8,800 acre-feet in an average year is of significant value during non-drought times. By using operational flexibility to balance the costs to serve this area associated with the energy-water nexus, SAWS and DSP ratepayers save on avoided operating costs. In the *2009 Water Management Plan Update*, SAWS did not consider the Trinity Aquifer to be a firm supply. Given experience managing this resource through the record-breaking drought of 2011 and the conjunctive management now possible between SAWS and DSP Trinity operations, the *2012 Water Management Plan* assigns a firm yield of 2,000 acre-feet per year to this supply.
- **Western Canyon Project** – The first surface water supply contracted by SAWS, the Western Canyon Project supplies two delivery points in north-central and northwestern Bexar County with treated water from Canyon Lake and began serving these areas in April 2006. The Western Canyon Project presently delivers

slightly more than 8,000 acre-feet per year with the base commitment of 4,000 acre-feet per year. SAWS participation in this regional partnership among other entities in Bexar, Comal, and Kendall Counties expires in 2037, but options exist to the partners to further extend their participation in this project.

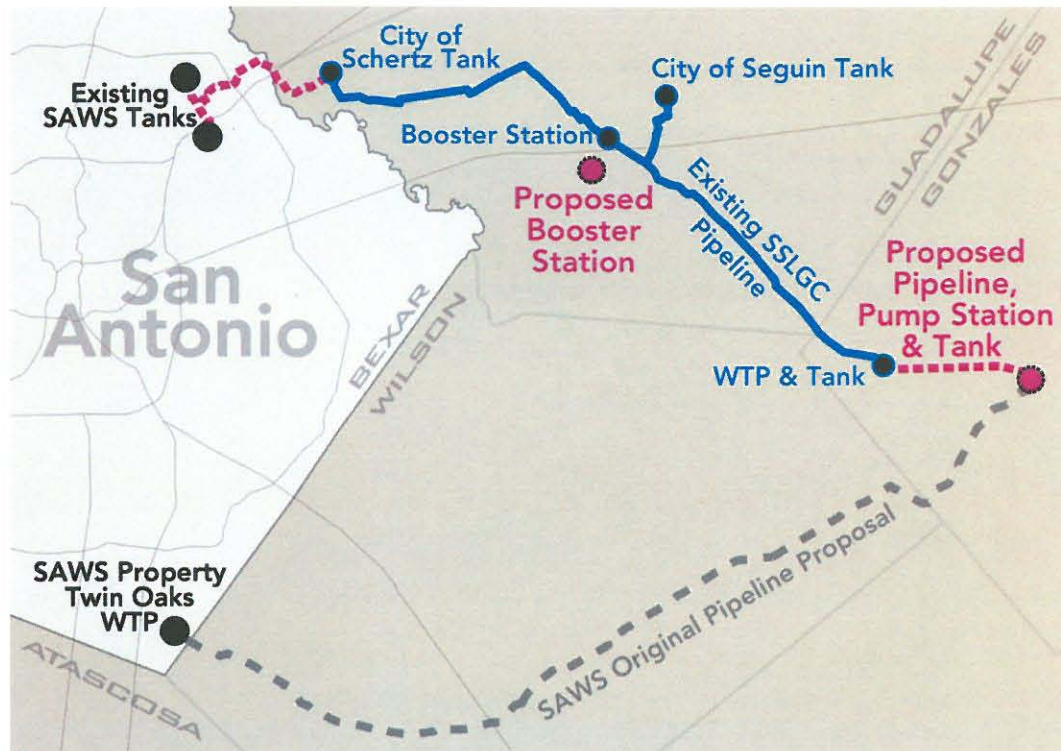
- **SAWS Twin Oaks Aquifer Storage and Recovery Project** – The ASR has been an unquestioned success. With the ability to store water during wet times or low demand seasons, and to recover that water during droughts, peak usage, or when demand on the Edwards Aquifer is high, the ASR has proven to be a very capable water management tool. Presently, the ASR has stored over 90,000 acre-feet of Edwards Aquifer water. The project recovered large volumes of previously-stored Edwards Aquifer water to San Antonio during the drought of 2009 and the record-breaking drought of 2011. With the pending EAHCP, the entire Edwards Aquifer region – from the Texas Hill Country to the coastal bays and estuaries – will soon be joining SAWS in further developing the success of this project. The ASR is San Antonio’s (and soon our regional neighbors’) “savings account for a sunny day” and is a premier example of what has made San Antonio water’s most resourceful city.
  
- **Local Carrizo** – Both components of the Local Carrizo project have been fully brought online since the *2009 Update*. Through an Interlocal Agreement with the Evergreen Underground Water Conservation District, SAWS has access to up to 6,400 acre-feet per year of Carrizo Aquifer water associated with ownership of land in southern Bexar County for the ASR Project. The Local Carrizo Project assists in countering the natural subsurface drift of stored Edwards Aquifer water volumes in and around the ASR wellfield. The DSP has the installed capacity to produce an additional 1,000 acre-feet per year, bringing the



combined Local Carrizo supplies to 7,400 acre-feet per year for this *2012 Water Management Plan*.

- Regional Carrizo Water Supply Program** – By the end of 2013, up to 17,200 acre-feet per year of Carrizo Aquifer water will be piped to San Antonio in cooperation with the SSLGC and the Gonzales Water Supply Corporation. This project will supply SAWS ratepayers with the largest non-Edwards water supply to date through an innovative and cost-saving infrastructure-sharing arrangement approved in February 2011. SAWS will be constructing its own production wells, collection pipelines, raw water transmission pipeline, additional pump-station, SAWS Nacogdoches Road pump-station improvements, and treated water transmission pipeline while financing the SSLGC’s necessary expansion of its existing water treatment plant in lieu of constructing over 50 miles of pipeline and two pump-stations originally contemplated in the *2009 Update* (see Figure 5).

**Figure 5: Comparison of 2009 and 2012 Regional Carrizo Project**



- Canyon Regional Water Authority (CRWA)** – The CRWA is a partnership of water supply districts, utilities, water supply corporations, and cities which purchase untreated surface water from Canyon Lake through the Guadalupe-Blanco River

Authority (GBRA). The water is withdrawn from Lake Dunlap and the San Marcos River, treated to potable quality, and distributed to its member entities. The DSP has an agreement to receive up to 4,000 acre-feet per year of treated surface water from Lake Dunlap. However, of this volume, the DSP has a 500 acre-feet per year lease with the City of Cibolo through 2018. CRWA is also working with its members to develop a Carrizo Aquifer project in Gonzales County and a Carrizo - Wilcox Aquifer project in Guadalupe County known as the Wells Ranch Project. Originally a project of the DSP, CRWA is nearing completion on the first phase of this project. The DSP has an agreement for 2,800 acre-feet per year of Carrizo Aquifer water supplies, for a total of 6,800 acre-feet per year from CRWA sources. In addition, the agreement with GBRA expires in 2024. The agreement between DSP and CRWA concerning the Wells Ranch Project expires in 2047 with an option to extend. These factors have been accounted for in the determination of supply from CRWA sources in this *2012 Water Management Plan*.

## Planned Projects for 2012-2020

The *2012 Water Management Plan* Task Force considered numerous projects to address future water supply needs for a growing city. A brief project abstract and project activity status is presented below for the projects that will be pursued during the Short Term (2012-2020).

### Additional Edwards Aquifer Supplies

SAWS will acquire 10,900 acre-feet of Edwards Aquifer permitted groundwater withdrawal rights. Examination of present distribution of permits indicates that this volume of water is available for acquisition through lease or purchase.

### Advanced Conservation

In preparation for the *2012 Water Management Plan*, SAWS conducted a survey to investigate how other municipal water industry leaders account for conservation in supply and demand modeling. Of the nine large utilities examined from across the nation, two utilities perceived conservation as a supply in their latest planning document (Los Angeles Department of Water & Power's *2010 Urban Water Management Plan*, City of Phoenix's *2011 Water Resource Plan*), while the other seven built conservation into the demand projections. Regionally and state-wide, South

Central Texas' *2011 Region L Plan* and the *2012 State Water Plan* consider conservation to be a water management strategy to be accounted for as a supply.

In the *2012 Water Management Plan*, Advanced Conservation is considered on the supply side in order to maintain visibility on the need for continuous maintenance of the program.

An important benefit of making this shift allows SAWS to more intuitively illustrate the complexity of water demand. The demand line in this *2012 Water Management Plan* represents dry-year demand moderated by the implementation of Stages I and Stages II. By adding Advanced Conservation to the supply side of the supply and demand charts, it can be defined programmatically and equated to an annual per acre-foot supply goal (1,644 acre-feet per year). Clearly, this is not a physical source of supply. Rather, it is a supply development avoidance to contribute to meeting the defined permitted supply gaps.

Water suppliers often experience fluctuations in customer demand as weather changes. SAWS is no different. The degree to which hot, dry weather results in greater demand varies greatly. The basis of the SAWS Water Conservation Program revolves around offering incentives and information to individuals and businesses to voluntarily implement structural and behavioral changes that result in water savings.

Examples of structural changes include:

- Conversion of high-flow toilets to high-efficiency toilets and utilizing more efficient faucet aerators and showerheads.
- Changing industrial process that through new equipment results in less water use.
- Choosing a high efficiency clothes-washing machine.
- Installing attractive landscape designs that require less water.

Examples of a behavior change are:

- Applying only the necessary amount of water to a landscape given site conditions and plant material.
- Turning the water off while cleaning dishes.

While structural changes generally require only a single decision (resulting in a change of equipment or technology to save water into the future), behavioral changes require continual individual water use awareness into the future.



While baseline water use has continued to decrease, peak water has been increasing over the past 10 years. This water use is almost universally attributed to discretionary landscape watering and can be traced to an increased installation of irrigation systems at residential and commercial locations.

Given these changes in use patterns and recognizing the significant success of indoor (equipment-based) conservation, future conservation efforts will be

focused toward reducing outdoor water use. SAWS currently administers a robust education program paired with incentives intended to encourage outdoor conservation. These programs will be expanded and enhanced through increased incentives directly to customers as well as an expansion of educational tools that assist SAWS customers with increasing the beauty and health of their landscapes while applying less water.

SAWS recognizes that such a shift in the area of focus for water conservation efforts may require greater financial incentives to address peak outdoor water usage. Presently, SAWS incentivizes conservation programs up to \$400 per acre-foot, depending on the specific characteristics and goals of each program. SAWS will develop competitive incentives, primarily for custom rebates, that could qualify for up to the unit-cost of supplies identified in this section, within the annually-approved conservation budget approved by the SAWS Board of Trustees. This greater flexibility will assist in accomplishing the targets identified for Advanced Conservation in the *2012 Water Management Plan*.

Based on data collected from thousands of customer landscape consultations and interaction with tens of thousands of SAWS customers over almost 20 years, SAWS has determined that there is great opportunity for reduced peak water use through better



landscape design and management strategies that will enhance the beauty and dry-year viability of San Antonio's landscapes.

## Expanded Carrizo Production

A potential new project is Expanded Carrizo Production in southeastern Bexar County. As described in **Explanation of Current Supplies for SAWS & DSP**, SAWS already has experience in designing, building, and operating projects that produce freshwater from the Carrizo Aquifer in southern Bexar County. Expanded Carrizo Production is a project to develop additional Carrizo Aquifer wells in southern Bexar County proximate to the ASR site.

Hydrologic modeling was conducted to determine the amount of additional Carrizo production that could be supported given current SAWS and DSP activities in the area and the future operation of the Brackish Groundwater Desalination Program. This analysis also examined whether the project would remain within the limits set by the DFCs for the area, any impacts on water stored by SAWS in the ASR facility, and potential impacts on the well mitigation program.

Potential synergies are present with existing and planned SAWS treatment and distribution infrastructure as well as DSP facilities in the vicinity. This project could leverage the benefits of this existing infrastructure, assist in the management of stored Edwards water in the ASR, and provide a comparatively-low cost water supply near San Antonio while remaining within the current DFCs for GMA-13.

The project will be constructed in three phases starting in 2017 at 7,000 acre-feet with subsequent phases planned in 7,000 acre-feet increments scheduled for 2022 and 2026. Expanded Carrizo Production ultimately provides 21,000 acre-feet per year of supply for the purposes of the *2012 Water Management Plan*.

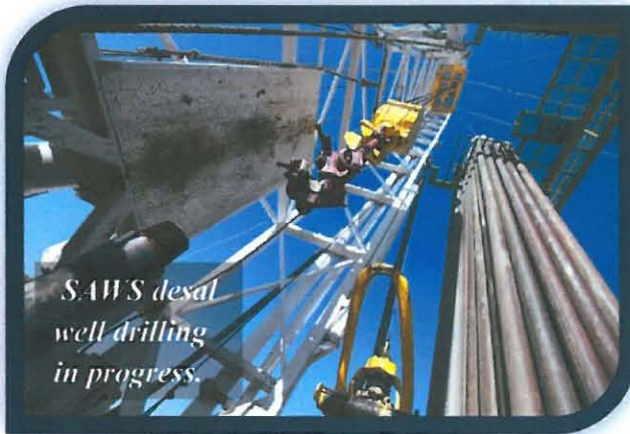
## Brackish Groundwater Desalination Program

On August 2, 2011, the SAWS Board of Trustees approved proceeding on the Brackish Groundwater Desalination (BGD) program. Development of this previously unusable water resource in close proximity to San Antonio will diversify SAWS water resource portfolio with a wholly new, sustainable, drought-proof supply, without directly competing for access to freshwater resources with neighboring water users, and is consistent with the Region L Water Plan – further illustrating San Antonio's well-earned reputation as water's most resourceful city.

The BGD program involves the production of brackish water, water too salty to drink, from the Wilcox Aquifer in southern Bexar County and treatment to drinking water

quality standards. The BGD program involves construction of new production wellfields and conveyance pipeline, concentrate disposal wells and disposal pipeline(s), a reverse-osmosis treatment plant, and pump-stations supplying a potable water delivery pipeline from the plant site to the southwestern and western portions of the SAWS service area.

Since the *2009 Update*, significant progress and some project modifications have been made. Feasibility studies involving site selection, membrane piloting, pipe-loop testing, and injectivity tests have been conducted. Funding to support portions of the Program has been obtained through the TWDB Water Infrastructure Funding in the form of low interest loans. Land for Phases I and II of the production wellfield has been acquired. Permits from the Texas Commission on Environmental Quality (TCEQ) have been received to drill up to five proposed injection wells. In the *2009 Update*, the BGD program was divided into three phases, with the first phase being developed in Bexar County and potential subsequent phases in neighboring Atascosa and/or Wilson Counties. However, studies of the operation of the BGD Program in light of the DFCs for



the area set by GMA-13 indicate that it is possible to complete all three phases of the project in Bexar County while remaining within the current DFC for GMA-13. SAWS presently plans to complete all three phases of the Program in Bexar County. However, these DFCs are reviewed no later than every five years and the location and spacing of any potential future phases of the Brackish

Groundwater Desalination project will need to be re-evaluated should changes be made to the DFCs by the stakeholders of GMA-13.

At the time of the adoption of the *2012 Water Management Plan*, the first test injection well had been completed, five production wells to support Phase I had been drilled, and the construction process was proceeding on the remaining three production wells. The Program is in the conceptual design phase under a Program Manager with the major design work to start early 2013. SAWS plans to procure a Construction Manger at Risk by the end of 2012 to participate in a constructability review of the design work and to provide overall construction management. Construction on the treatment plant, pipelines, pump-stations, and other facilities is expected to begin in 2013, with the plant

commissioning expected in late 2015 and full operation in late 2016, providing 12,210 acre-feet per year of drought-proof desalinated groundwater to San Antonio's taps. Future phases will bring the total supply from this Program to 30,525 acre-feet per year.

## Request for Competitive Sealed Proposals (RFCSP)

The *2009 Update* identified Other Water Supplies as a Long-Range strategy (2035-2060) to help meet and fill anticipated permitted supply gaps. In 2009 and 2010, SAWS staff evaluated various ways of obtaining qualified proposals from vendors that might have water available to provide to SAWS in a manner that provides long-term stability and assurance to SAWS while shifting the development risks to the vendor. It was determined that the best method to accomplish these goals was a Request for Competitive Sealed Proposals (RFCSP). A subsequent amendment to the *2009 Update* identified the RFCSP as a mid-term strategy at up to 20,000 acre-feet per year, and increasing in the long-term supply up to 60,000 acre-feet per year of firm yield water supplies.

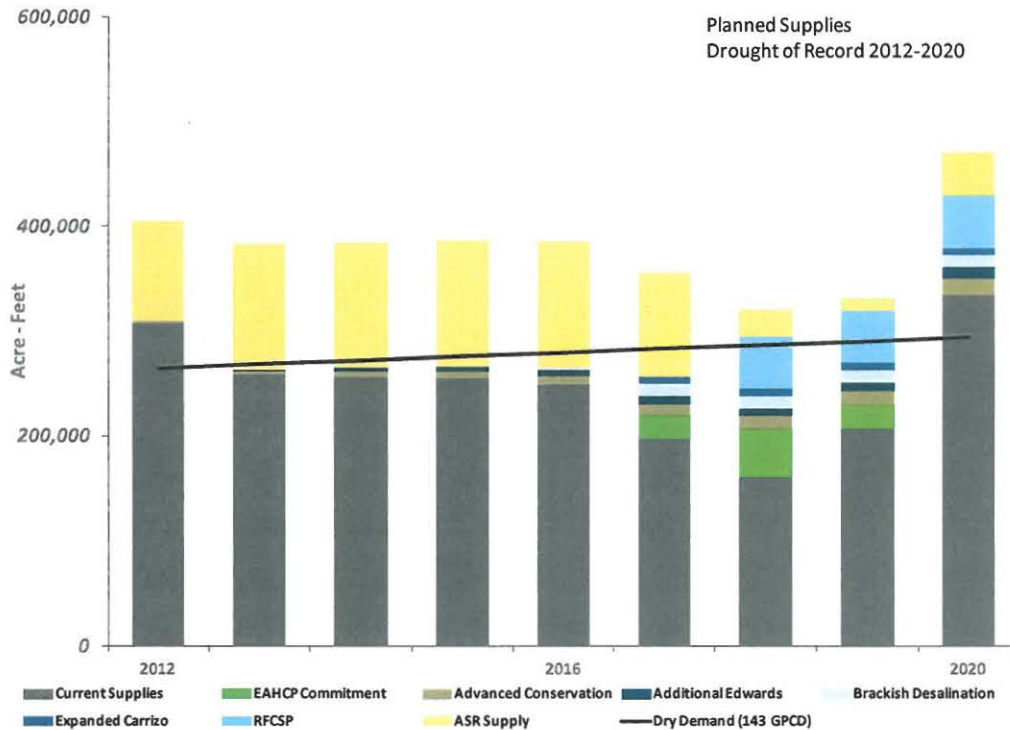
On January 14, 2011, in accordance with the *2009 Update*, SAWS requested competitive sealed proposals for a water supply to supplement future water inventory. The RFCSP document specified that SAWS could accept up to 20,000 acre-feet of water per year in 2020 and might gradually increase the quantity by up to 1,500 acre-feet annually beginning in 2021. Nine proposals were received by the July 22, 2011 deadline. An exhaustive evaluation of nine separate proposals resulted in four of the projects being deemed responsive to the utility's request. Each proposal was analyzed to determine overall responsiveness and qualifications utilizing pre-determined criteria, including ownership and control of water, proposed solution for delivery, price, financial strength, project management and quality control/assurance.

The final steps of the RFCSP process will be conducted in conjunction with completion of the *2012 Water Management Plan*. With the completion of the *2012 Water Management Plan*, SAWS expects to update and proceed with the RFCSP. This final stage will include recent critical factors such as the integration of DSP, the EAHCP, and 2010 Census data in making the final determination of the size and timing of the RFCSP. The *2012 Water Management Plan* projects that up to 50,000 acre-feet per year could be requested in 2018 and additional water, if available, added as required.

Through the rigorous RFCSP process, SAWS hopes to add further to the city's diverse water supplies and help achieve its goal of a diversified water supply for San Antonio.

By implementing the supply projects and demand measures as described, SAWS ratepayers will be assured water resource security during the harshest of conditions in the Short Term (see Figure 6).

**Figure 6: Water Supply Projects and Demand Management Measures fill the Short-Term permitted supply gap.**



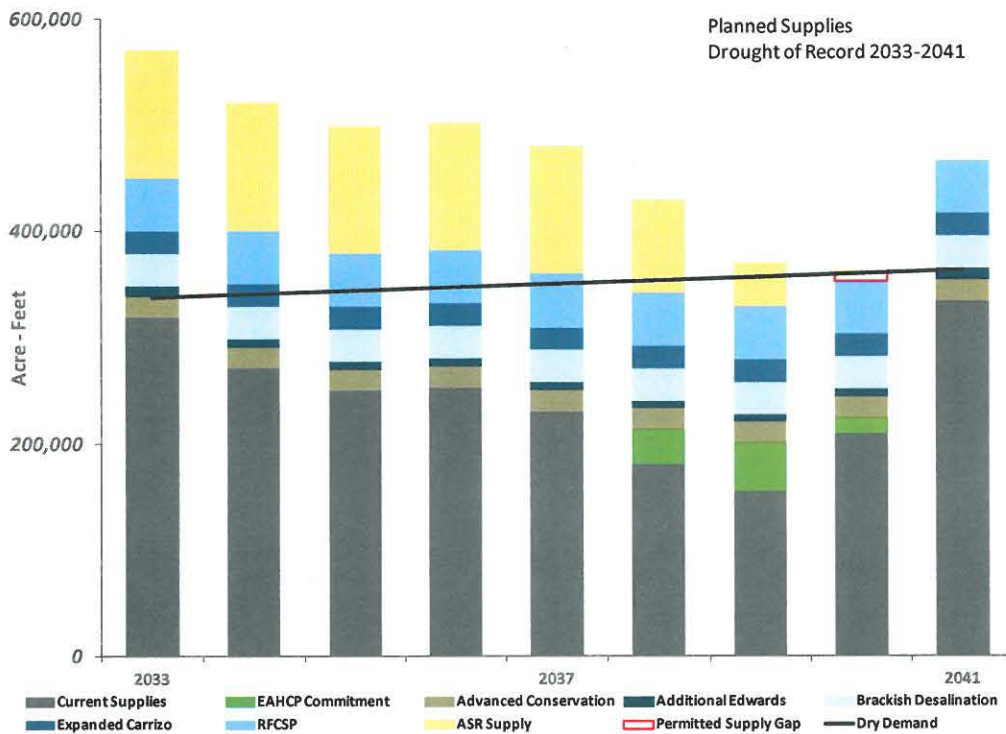
## Planned Projects for the Mid Term (2021-2039)

While the 2012 Water Management Plan expects the dry year consumption to remain at 135 GPCD beyond the year 2020, population is expected to continue to grow, resulting in an overall increase in total demand. For this reason, the Mid Term Program calls for SAWS to execute additional phases of the BGD Program and the Expanded Carrizo project.

The 2012 Water Management Plan outlines a water management strategy that maintains SAWS current supplies, successfully develops supplies in the Short Term, and builds on those supplies in the Mid Term:

- Conservation programming that maintains consumption at 135 GPCD.
- Phase II and III of the Brackish Groundwater Desalination Program (additional 12,210 acre-feet per year by the year 2021, followed by an additional 6,105 acre-feet per year by the year 2026) for a total yield of 30,525 acre-feet per year for the Program.
- Phase II and III of Expanded Carrizo (additional 7,000 acre-feet per year by the year 2022, followed by an additional 7,000 acre-feet per year by the year 2026).
- The completion of the water supplies identified in the Short and Mid Term Programs will ensure that SAWS has water security – even in a future repeat of drought of record-like conditions – through 2040 (see Figure 7).

**Figure 7: Water Supply Projects and Demand Management Measures fill the Mid-Term permitted supply gap.**



## Edwards Aquifer Habitat Conservation Plan

The Edwards Aquifer HCP has a term that will expire during this timeframe; however, the necessity to balance the needs of the human users of the Edwards Aquifer and the Federally-listed threatened and endangered species associated with it will remain. Some form of Aquifer management for periods of record-breaking drought stress will be required to continue. While those future forms of Aquifer management cannot be

predicted, SAWS has chosen to continue to represent the EAHCP commitment on the water supply and demand charts beyond the expiration of the present HCP to illustrate:

- The potential impact of other means of managing the Edwards Aquifer to maintain minimum continuous springflows to the maximum extent practicable under current law based on the level of understanding SAWS presently has.
- SAWS intention to be involved in and possibly support whatever future management measures that may develop.

## Conceptual Projects for the Long Term (2040-2070)

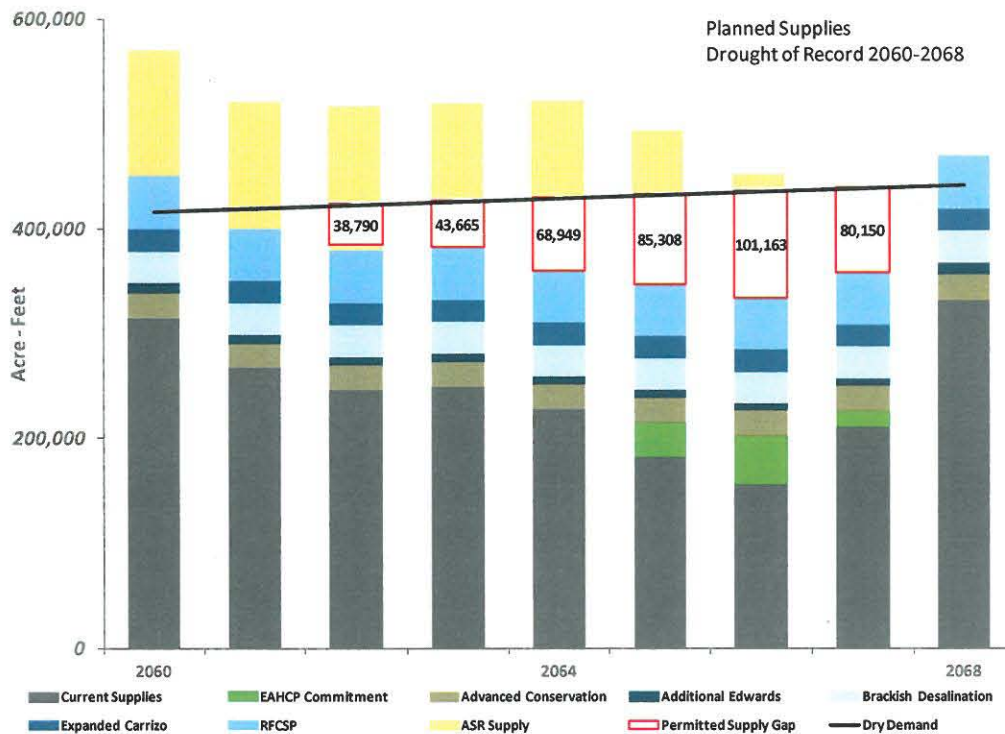
The nature of long term planning requires SAWS to examine what might be expected in the future based on the best information available today. There will undoubtedly be significant new information and technology advancements during the timeframes covered by the Short and Mid Term Programs. New information on population growth, water demand, and the changing water regulatory setting will be evaluated by SAWS with an eye towards this future.

By this time, SAWS experience in desalination will be as established as its leadership in conservation and ASR management is today. It is clear that, even developing the full slate of planned projects, there could be up to approximately 101,000 acre-feet of permitted supply gap in the worst year of a future drought of record-like event that would need to be addressed.

Some conceptual solutions are:

- Ocean Desalination
- Expansion of Brackish Desalination
- Additional ASR capacity or ASR operations
- New future conservation paradigms
- Future Regional Water Project(s) (RFCSP)

SAWS has chosen to reveal these potential permitted supply gaps in **Figure 8**, rather than fill them with the conceptual solutions, but will be actively investigating, evaluating and preparing a firm foundation upon which to build these future supply projects.

**Figure 8: Potential Permitted Supply Gaps to be Addressed in the Long Term**


## Previous Projects Not Currently Feasible

Some projects from the *2009 Water Management Plan Update* are no longer being considered as a source of future water supply. Among these are:

- Edwards Aquifer Recharge Initiatives** – The deliberations of the EARIP assisted in further refining the feasibility, costs, and benefits of artificially enhancing the recharge of the Edwards Aquifer for the purpose of springflow maintenance, but the results were also helpful in evaluating the concept from the water supply perspective. Additionally, the deliberations of the various Environmental Flows science and stakeholder committees for basins crossing the Edwards Aquifer recharge zone provided insight into the proposed future management of surface water in those basins. The present regulatory environment is not favorable for recharge enhancement initiatives for municipal supply purposes. SAWS views the enhancement of recharge as a public good and continues to support its



implementation as a regional benefit, but will not be pursuing the matter from the municipal water supply perspective.

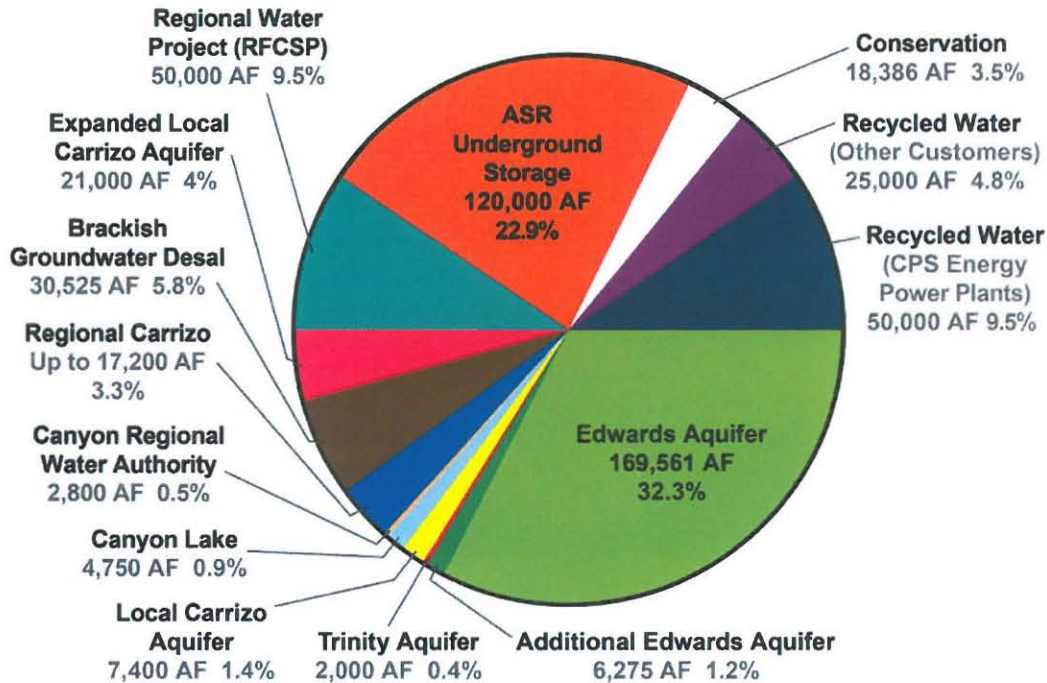
- **Recharge & Recirculation** – The EARIP also considered the feasibility, costs, and benefits of this concept. Given the present regulatory environment and uncertainty in the scientific studies of the concept, SAWS will focus on water supply projects with greater certainty.
- **LCRA-SAWS Water Supply Project** – As part of the successful mediated resolution between SAWS and the LCRA that brought the LCRA-SAWS Water Supply Project to a mediated conclusion, SAWS and LCRA agreed to consultation in the future for the purpose of evaluating and securing additional water through efforts benefiting both LCRA and SAWS. SAWS remains willing to do so on a cooperative, beneficial, regional basis in the future under equitable planning and cost sharing scenarios.

## Contribution to Diversification

A diverse water supply continues to be important to SAWS. While the Edwards Aquifer will always be the cornerstone water supply for San Antonio, the growing population in the SAWS service area will be increasingly served by water supplies from other sources. As the water supply projects described in this plan are implemented, SAWS will be managing an increasingly diverse portfolio of water resources (see **Figure 9**).

### Water Resource Risks

Implementing a successful water resource project is not a simple endeavor, and none are without some measure of risk. While the RFCSP is structured in a manner that provides long-term stability and assurance to SAWS while shifting the development risks to the vendor, should the selected supply project be unsuccessful, aspects of the Mid Term projects would be accelerated in the next update to this Plan.

**Figure 9: Combined SAWS and DSP Supplies in Drought Conditions by 2030**


## Financial Analysis

The projected costs of the *2012 Water Management Plan* going forward from 2012 are presented in terms of the projected overall capital costs, the estimated operations and maintenance costs through 2030, resulting cost per acre-foot of water, and the predicted impacts of these costs on customer rates.

The cost projections and rate impact estimates shown are the result of a rigorous financial forecasting process undertaken as part of the SAWS annual budget cycle. The forecasting process considers operating costs, long term capital project requirements, available financial resources, and strategic policy guidelines to produce a comprehensive twenty-year forecast of projected costs, revenues and rate impacts. The forecast provides long range perspective to the SAWS Board of Trustees and the San Antonio City Council in the consideration of annual SAWS budget and rate requirements.

The *2012 Water Management Plan* plans to pursue five major projects which together will add up to 112,425 acre-feet of firm water to the SAWS inventory. Listed below are the five projects with the additional acre-feet of water expected from each where applicable:

- **Brackish Groundwater Desalination:** 30,525 acre-feet per year
- **Expanded Bexar County Carrizo Production:** 21,000 acre-feet per year
- **Request for Competitive Sealed Proposals (RFCSP) Project:** up to 50,000 acre-feet per year
- **Acquisition of Edwards Aquifer Water Rights:** 10,900 acre-feet per year
- **The Water Resources Integration Pipeline (WRIP):** While this project will not add to SAWS water inventory as a stand-alone project, accelerated construction of the previously planned WRIP is required in order to accommodate the Expanded Carrizo Project and the Brackish Groundwater Desalination Program. Specifically, due to the addition of the Expanded Carrizo Project, the construction of the entirety of the pipeline length is planned to be accelerated from 2022 to 2017. The supply yields for these two projects will not be usable without the WRIP to deliver the produced supplies to San Antonio's water users.

### Projected Overall Capital Costs

The total projected capital cost of these five projects is \$622.2 million. **Table 1** presents the capital costs by project. Total capital project costs from 2012 going forward are presented. Please note that the RFCSP project will be funded primarily by the SAWS operations and maintenance (O&M) budget since the project will be a contract with a vendor to deliver water on a per acre-foot fee basis annually. The estimated RFCSP capital costs shown here are for the integration of the RFCSP project with the SAWS water distribution system, and will vary widely based on the distribution system point ultimately selected for delivery of RFCSP water.

**Table 1: Total Projected Capital Cost by Project**

Projected Capital Costs *	
(2012-2030)	2012 WMP
Edwards Aquifer	\$ 64,880,173
Brackish Desalination	231,884,352
Integration Pipeline	173,728,839
Expanded Carrizo	35,394,358
RFCS Integration	116,320,000
<b>Total Capital Costs</b>	<b>\$ 622,207,722</b>

\* Capital costs in 2012 WMP do not reflect approved budget amounts prior to 2012.

### Estimated Operations and Maintenance Costs

As seen in **Table 2**, from 2012 through 2030, the cumulative operations and maintenance cost of the *2012 Water Management Plan* is estimated to range from a minimum of \$1.2 billion to a maximum of \$2.6 billion. The costs shown reflect 3% annual inflation. The primary cost driver for the purpose of this calculation is the range of estimated costs shown for the RFCS project. The range of costs shown for the RFCS reflects the assumptions made by the *2009 Water Management Plan Update* for other potential water projects not specifically identified within the *2009 Update*. The *2009 Update* estimated that the cost for these other projects could range from approximately \$1,000 to \$2,500 per acre foot.

**Table 2: Cumulative Operations and Maintenance Costs by Project**

Estimated Operations & Maintenance Costs (2012-2030)	2012 WMP - (Min)	2012 WMP - (Max)
Edwards Aquifer *	\$ 17,707,758	\$ 17,707,758
Brackish Desalination	166,695,955	166,695,955
Integration Pipeline	103,485,093	103,485,093
Expanded Carrizo	52,885,940	52,885,940
RFCS **	884,000,000	2,237,795,000
<b>Total Program Costs</b>	<b>\$ 1,224,774,747</b>	<b>\$ 2,578,569,747</b>

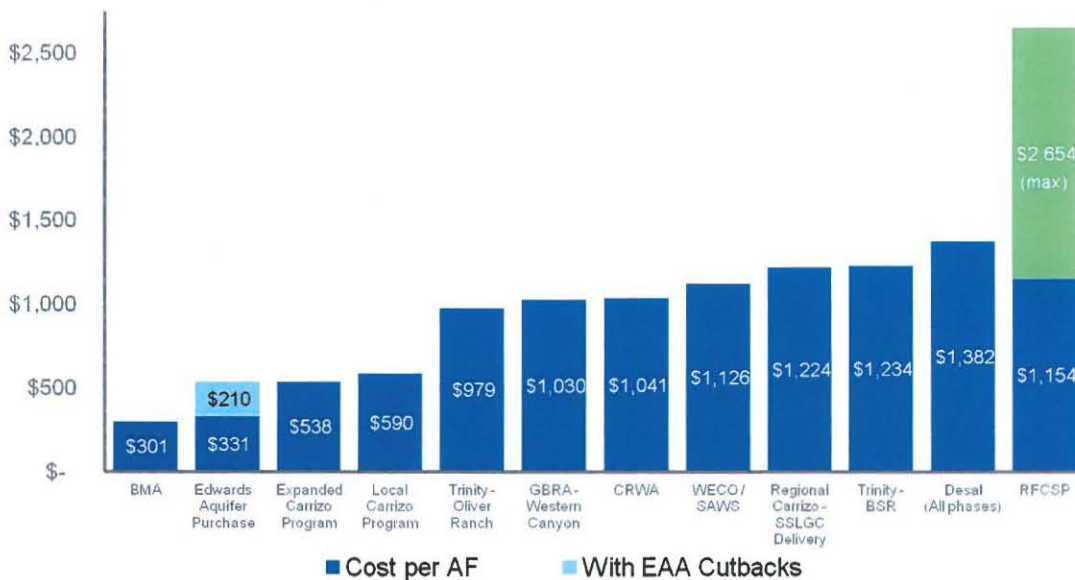
\* Estimated O&M costs for the Edwards Aquifer do not include Aquifer Management Fees (AMF).

\*\* Estimated O&M costs for the RFCS reflect the \$1,000/acre-ft (Min) and \$2,500/acre-ft (Max) range.

### Cost per Acre-Foot

The annual costs of the projects planned in the *2012 Water Management Plan* per acre-foot are shown (see **Figure 10**). For comparison purposes, the per-acre-foot calculations of other water supply development projects (other than the five major projects of the *2012 Water Management Plan*) are also shown. The costs per acre-foot reflect annual debt service costs plus annual operating costs from the start of project operation through 2030. As discussed previously, the costs shown for the RFCSP reflect: (1) the minimum and the maximum estimated operating costs per acre foot for other potential, but unspecified water projects from the *2009 Water Management Plan Update* (\$1,000 to \$2,500 per acre foot) plus (2) the estimated annual debt service cost per acre foot for the RFCSP Integration capital project (\$154). To allow for comparability, inflation is not assumed in the per acre-foot costs. The cost of the Water Resources Integration Pipeline is allocated proportionately among the per acre-foot calculations of the water supply-generating projects supported by the pipeline.

**Figure 10: Annual Cost per Acre-Foot by Project**



\*The financial status of conservation incentives is discussed in the **Planned Projects** section and currently SAWS has the ability to issue incentives up to \$400 per acre-foot.

### Changes to Baseline Customer Rate Projections

The *2012 Water Management Plan* includes this projection of the impact on average monthly customer water and sewer user charges for each year through 2022 (see **Figure 11**). The charges shown are based on average residential consumption of 7,788 gallons per month of water usage. Additionally, the rates underlying the monthly charges

assume system-wide water consumption levels consistent with the GPCD projections presented in the *2012 Water Management Plan*.

The chart compares the baseline monthly charge projections based on the *2009 Water Management Plan Update*, and new projections based on the recommendations of the *2012 Water Management Plan* with two variations reflecting the estimated range of costs for the RFCSP. Specifically, the chart shows three projection lines: (1) the *2009 Update* baseline projections, (2) the monthly charges needed to support the *2012 Water Management Plan* assuming RFCSP annual operating costs at \$2,500/acre-foot (Max), and (3) the monthly charges needed to support the *2012 Water Management Plan* assuming RFCSP annual operating costs at \$1,000/acre-foot (Min). As previously noted, the range of costs projected for the RFCSP is based on the estimated costs for other potential, but unspecified water projects contained in the *2009 Water Management Plan Update*.

**Figure 11: Projected Average Monthly Customer Water Charges (2012-2022)**



It is projected that the costs to begin implementing the *2012 Water Management Plan* will impact customer rates relative to the Baseline Projection beginning in 2017. The estimated increase in the average monthly bill over the baseline projection is \$16 for

RFCSP at \$2,500 acre-ft and \$8 for RFCSP at \$1,000 acre-ft in 2018. The primary driver for the increase is the planned adjustment to the schedule for the RFCSP project which accelerates initial water delivery from the project up to 2018 from 2020, and increases initial delivery from 20,000 acre-feet per year to up to 50,000 acre-feet per year. After 2019, projected rates under both the Current Projection baseline and the *2012 Water Management Plan* begin to more closely coincide.

While the adjustments to the RFCSP project schedule and scope increase overall annual operations and maintenance costs in 2018, the amount of water added by the *2012 Water Management Plan* over the Current Projection is up to 39,900 acre-feet in 2018 alone.

## Public Outreach

SAWS citizen committees, the Citizens' Advisory Panel (CAP) and the Community Conservation Committee (CCC), received presentations as part of the development of the *2012 Water Management Plan*. The membership of these community representative committees provided feedback on the formulation of the *2012 Water Management Plan*.

SAWS undertook an extensive public outreach effort to report to the community and receive their views on future water supply planning. These audiences represented the diverse interests of the SAWS service area including stakeholder groups, small business owners, elected officials, and community advisory organizations. SAWS proactively briefed the governing bodies of regional water entities as well.

SAWS hosted five public meetings and presented this *2012 Water Management Plan* to over fifty additional community groups and organizations.

## Summary

This *2012 Water Management Plan* outlines the actions SAWS will be taking in the short term to acquire additional planned supply sources.

SAWS will be acquiring 10,900 acre-feet of Edwards Aquifer permits. Brackish Groundwater Desalination will add 12,210 acre-feet per year by 2016, with the supply growing to 30,525 acre-feet per year of total yield by 2026. Expanded Local Carrizo production will add 7,000 acre-feet per year of supply by 2017, adding two additional phases of 7,000 acre-feet each in 2022 and 2026. A Regional Water Supply Project (RFCSP) of up to 50,000 acre-feet is planned for 2018.

Advanced Conservation and temporary Drought Management Measures (Restrictions) continue to be important components of the success of the *2012 Water Management Plan*. If these planned supplies and conservation measures are implemented, San Antonio will have firm, drought-proof water supplies through any drought, including a repeat of drought-of-record-like conditions, through 2040.

Planned Supply Source	Action
<b>Additional Edwards Rights</b>	10,900 ac-ft acquired
<b>Brackish Groundwater Desal Plant</b>	12,210 ac-ft/yr on line in 2016 24,420 ac-ft/yr in 2021 30,525 ac-ft/yr in 2026
<b>Expanded Local Carrizo</b>	7,000 ac-ft/yr on line in 2017 14,000 ac-ft/yr in 2022 21,000 ac-ft/yr in 2026
<b>Regional Water Supply Project (RFCSP)</b>	Up to 50,000 ac-ft/yr starting in 2018
<b>Demand Reduction</b>	
<ul style="list-style-type: none"> <li>Water savings from programs to reduce dry year GPCD to 135</li> </ul>	16,500 ac-ft/yr by 2020



## Abbreviations and Acronyms

AF/yr	Acre feet per year Acre foot = 325,851 gallons
ASR	Aquifer Storage & Recovery Facility / underground storage facility
BGDP	Brackish Groundwater Desalination Program
BMA	Bexar-Medina-Atascosa WCID #1
BMIAC	BexarMet Integration Advisory Committee
BMWD	Bexar Metropolitan Water District
CAP	Citizens' Advisory Panel
CCC	Community Conservation Committee
CCN	Certificate of Convenience and Necessity
CFS	Cubic Feet per Second
CRWA	Canyon Regional Water Authority
DFC	Desired Future Conditions
DOR	Drought of Record
DSP	District Special Project
EAA	Edwards Aquifer Authority
EARIP	Edwards Aquifer Recovery Implementation Program
EAHCP	Edwards Aquifer Habitat Conservation Plan
GBRA	Guadalupe-Blanco River Authority
GIS	Geographic Information System
GMA	Groundwater Management Area
GPCD	Gallons per Capita per Day
HCP	Habitat Conservation Plan
LCRA	Lower Colorado River Authority
MGD	Million Gallons per Day
RCP	Regional Carrizo Project
RFCSP	Request For Competitive Sealed Proposals
SAWS	San Antonio Water System
SB	Senate Bill
SSLGC	Schertz-Seguin Local Governmental Corporation
TAZ	Transportation Analysis Zone
TCEQ	Texas Commission on Environmental Quality
TSDC	Texas State Data Center
TWDB	Texas Water Development Board
USFWS	U.S. Fish and Wildlife Service
VISPO	Voluntary Irrigation Suspension Program Option
WCID	Water Control and Improvement District
WRIP	Water Resources Integration Pipeline
WMP	Water Management Plan
WSC	Water Supply Corporation



# **EXHIBIT “D”**

# 2013 Proposed Rate Adjustments

## Robert R. Puente

President/CEO

## Steve Clouse

Senior Vice President and COO

## Doug Evanson

Senior Vice President and CFO

November 14, 2012

San Antonio City Council B Session



## SAWS Successes

November 14, 2012

### 2012 Accomplishments

- Seamless integration of BexarMet
  - 166 employees accomplishing the work of 387 with SAWS expertise and assistance
- One of San Antonio's "Top Workplaces" for the 2<sup>nd</sup> year in a row
- Adding 10,000 ac-ft to ASR storage
- \$96 million savings from bond refinancing
- Construction underway on major infrastructure
  - Desalination Plant
  - Southwest Bexar Sewer Pipeline
  - Regional Carrizo Project

2013 Proposed Rate Adjustments

Page 2





# Water Operations

## Growth and Service Requirements

- Water Customers 460,845
- Service Area 927 sq. miles
- Miles of Main ~6,100 miles
- Metered Use 71 billion gals.



# Wastewater Operations

## Growth and Service Requirements

- Wastewater Customers 411,184
- Service Area 722 sq. miles
- Miles of Sewer Mains 5,163 miles
- Manholes 97,000
- Lift Stations 158
- Major Treatment Plants 3
- Annual Treated Flow 49.9 billion gals.

# SAWS System Challenges

## Infrastructure, Performance and Water Supply

- Procurement of diverse supplies
  - Regulatory Constraints and Higher Costs
- Integration of new supplies and customers
  - BexarMet
- Maintenance and replacement of aging infrastructure
- Reduction of Sanitary Sewer Overflows (SSOs)
  - Compliance with the Law



# Sanitary Sewer Overflows

## Compliance with the Clean Water Act

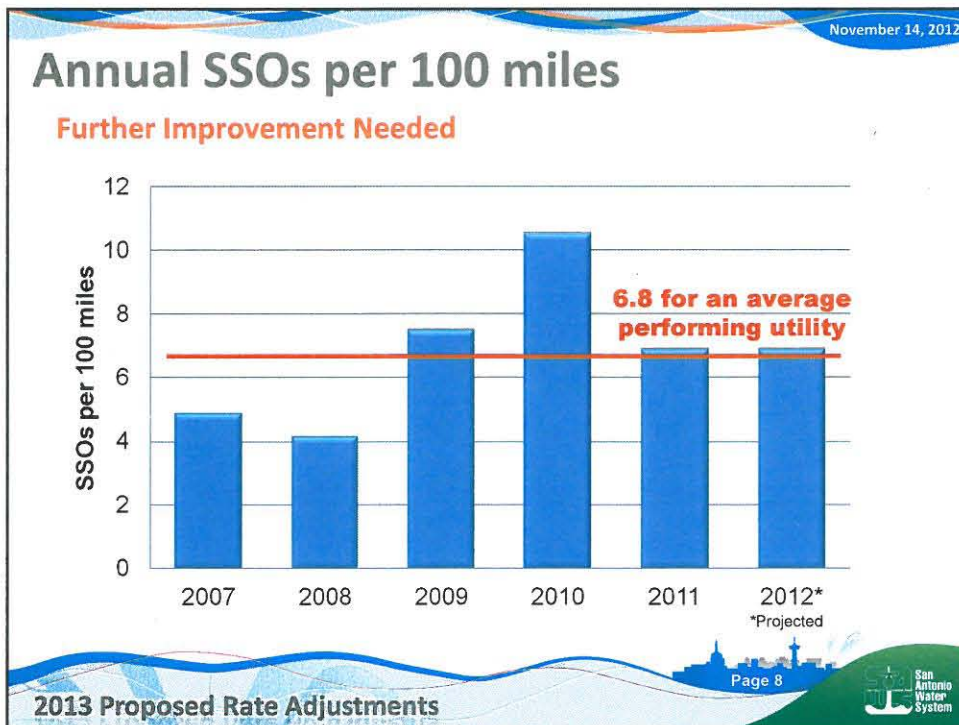
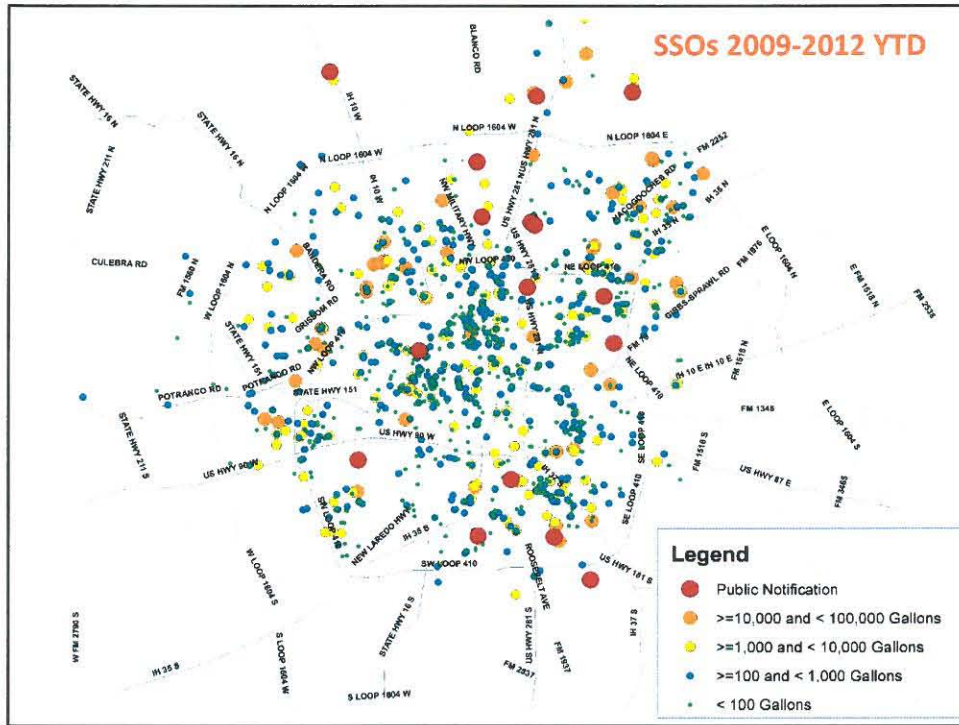
“In March 2007, SAWS was orally notified by the... EPA of alleged failures to comply with the Clean Water Act due to the occurrence of sanitary sewer overflows.”



“Negotiations with the EPA/DOJ are ongoing... any settlement, consent decree, or enforcement action will result in the imposition of a civil penalty and in required capital improvements and increased annual maintenance and operating expenses...”

- SAWS Comprehensive Annual Financial Reports (CAFRs) Disclosure (2007 – 2012)







November 14, 2012

## SSO Reduction Program

### Compliance with the Clean Water Act

- Recommended by industry experts
- Modeled after top performing utilities in the U.S.
  - San Diego, CA
  - Clark County, NV
- Consistent with successful and long-term SAWS program utilized over the Edwards Aquifer Recharge Zone (EARZ)

Page 9



2013 Proposed Rate Adjustments



November 14, 2012

## SSO Reduction Program

### A Comprehensive Operating Approach

- Cleaning is key
  - Grease and Debris are the major drivers of SSOs
- Inspect
- Prevent
  - Keep the grease out
- Repair or Rehabilitate problems causing SSOs
- Provide for capacity

**Sustained effort + correct tools = results**

Page 10

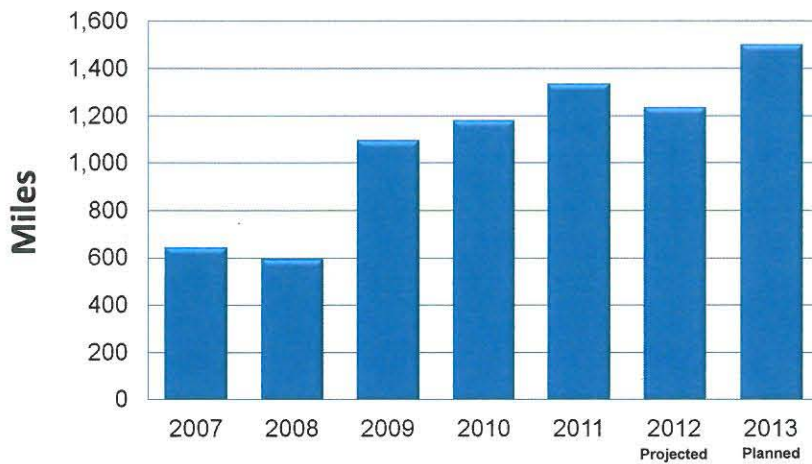


2013 Proposed Rate Adjustments



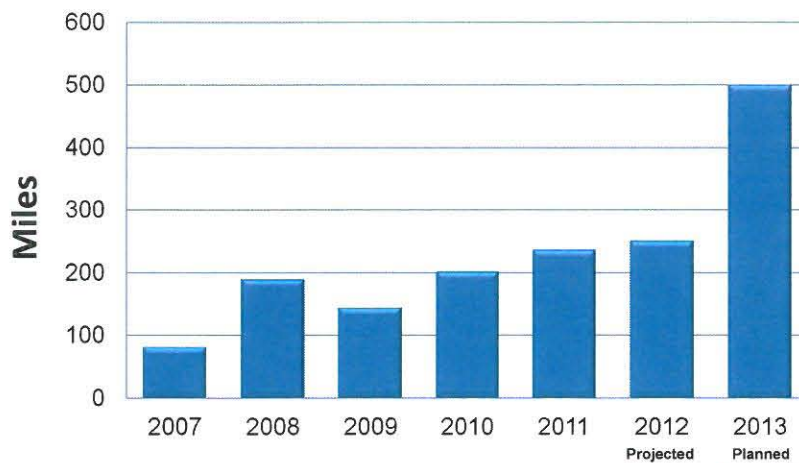
# Line Cleaning

Annual work doubled since 2007



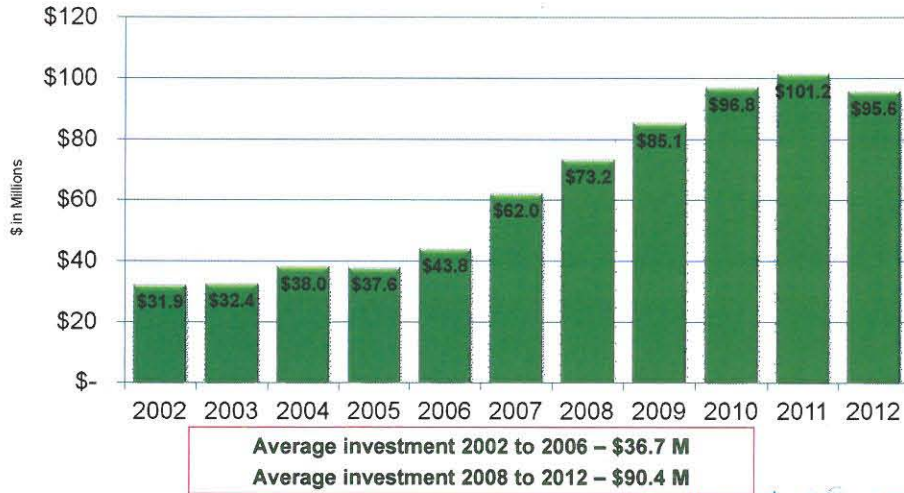
# Televising

Annual work tripled since 2007



# Investment in Collection System

## Capital Commitments 2002 – 2012

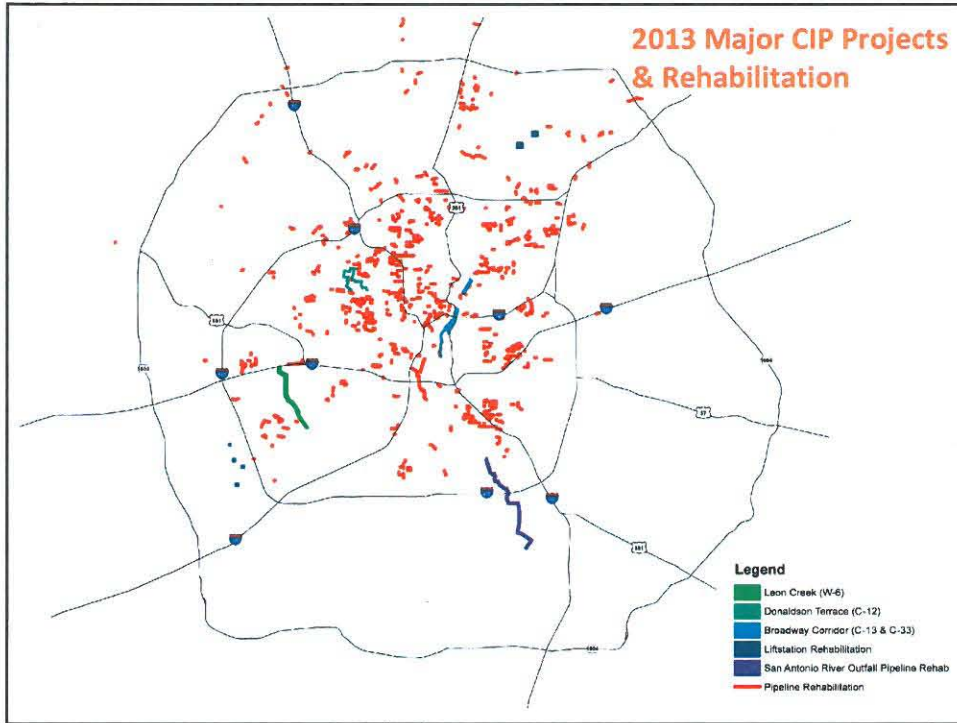


# Sewer System Requirements

## 2013 Capital Projects

- Infrastructure Renewal & Replacement
- Pipeline Rehabilitation
- Pipe Over-sizing and Replacement for Growth
- Lift Station Elimination
- Governmental Projects
- Other Service Improvements





November 14, 2012

# Revenue Requirements

Page 16

2013 Proposed Rate Adjustments

San Antonio Water System

## Rates and Charges

Ordinance No. 75686 – April 30, 1998

Gross Revenues shall be pledged in the following order of priority:

- 1) Maintenance and Operating Expenses
- 2) Debt Service and Reserve Fund Requirements
- 3) City General Fund Transfer
- 4) Equal Transfer to Renewal & Replacement
- 5) Any Surplus Transferred to Renewal & Replacement

– Amounts transferred to Renewal & Replacement provide cash funding for capital program

2013 Proposed Rate Adjustments

Page 17



## 2013 Proposed Budget

\$ in Millions	2012 Budget	2013 Proposed
<b>Sources of Funds</b>		
Revenues*	\$437.5	\$478.6
Capital Recovery Fees	22.0	22.0
<b>TOTAL</b>	<b>\$459.5</b>	<b>\$500.6</b>
<b>Uses of Funds</b>		
Operations and Maintenance	230.3	245.6
Debt Service & Expenses	156.1	167.7
Transfer to COSA	11.0	12.1
Available for R & R - Restricted	22.0	22.0
Available for R & R and Other	40.1	53.2
<b>TOTAL</b>	<b>\$459.5</b>	<b>\$500.6</b>

\*Revenue totals assume proposed base rate increases.

2013 Proposed Rate Adjustments

Page 18





## Accelerated SSO Reduction Program

**\$13.8 M O&M Increase**

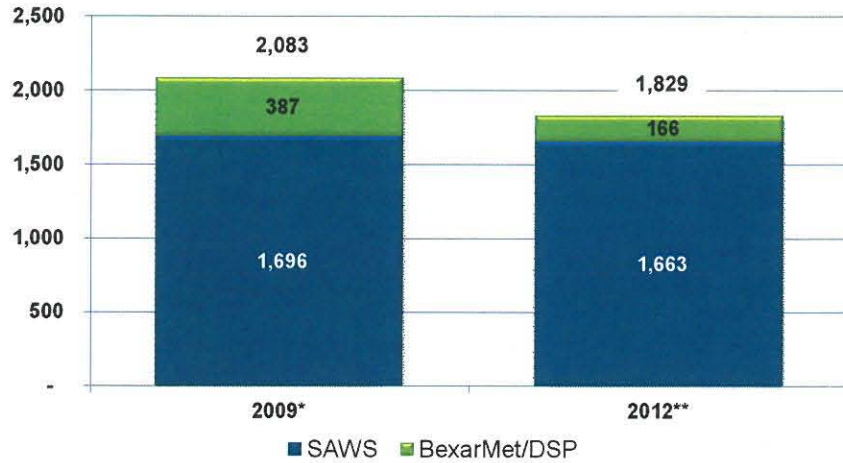
- Televising and Assessment
  - \$2.4 million
- Line Cleaning
  - \$7.4 million
- Capacity Assessment
  - \$1.7 million
- Program Manager & Data Mgmt
  - \$2.3 million

## Other Operating Cost Increases

- Salary Adjustments
  - 2.5% Budgeted
  - Acceleration of Medical Cost Sharing
- Defined Benefit Plan Contribution
  - Lowering of Assumed Discount Rate
- Utility Costs
  - Regional Carrizo Water Supply Project
- Water Options
  - SAWS Portion of WECO Water Supply Contract

## Combined SAWS/DSP Workforce

12.2% Less Combined Employees

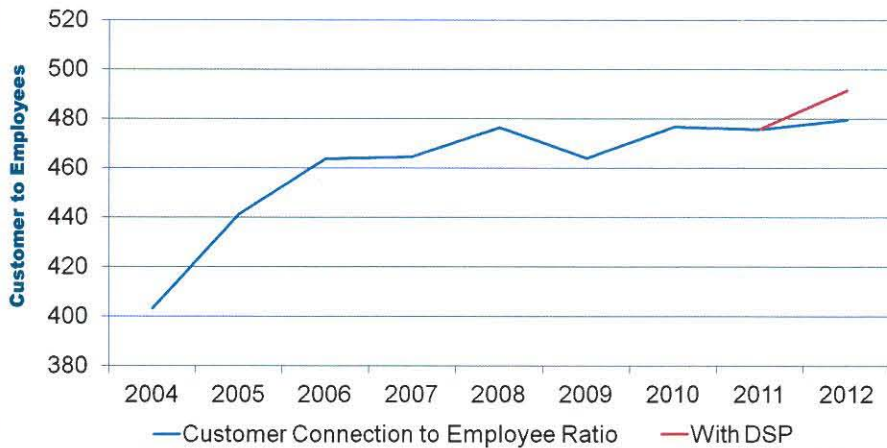


\* BexarMet position count as of 4/30/2009, SAWS position count as of 12/31/2009

\*\* Count as of November 2, 2012

## Increased Operational Efficiencies

21.9% Improvement in Customer Connection to Employee Ratio



## O&M Costs 2005 - 2013

### Compounded Annual Growth Rate

Increase in Budgeted O&M Expenses (Before capitalization)	3.80%
Adjusted O&M Expenses for pass-thru fees, water option payments, chemicals, fuel and expanded SSO reduction program	2.23%
Avg Annual Inflation Rate Sept, 04 – Sept, 12	2.50%
Avg Annual Customer Growth Sept, 04 – Sept, 12	<u>2.20%</u>
Inflation + Customer Growth Rate	4.70%

### 2013 Proposed Rate Adjustments

## Minimize Borrowing Costs

### Refinancings Completed in Last 20 Months to Save \$96 M

Series	Par Amount Refunded	Refunded Series	Par Amount Issued	Cash Savings
Series 2011	\$ 50,235,000	Series 2001	\$ 46,555,000	\$ 5,778,843
Series 2011A	115,080,000	Series 2002 & 2002-A	106,465,000	15,745,238
Series 2012	265,885,000	Series 2002	225,255,000	71,002,169
Jr. Lien Series 2012 (No Reserve Fund)	39,005,000	Jr. Series 2001, 2001-A, 2002, & 2002-A	31,890,000	3,459,215
	<u>\$ 470,205,000</u>		<u>\$ 410,165,000</u>	<u>\$ 95,985,466</u>

New Series	2013 Debt Service	Refunded Series	Prior 2013 Debt Service	2013 Cash Savings
Series 2011	\$ 4,064,650	Series 2001	\$ 4,447,000	\$ 382,350
Series 2011A	9,424,500	Series 2002 & 2002-A	10,200,594	776,094
Series 2012	13,130,500	Series 2002	17,432,631	4,302,131
Jr. Lien Series 2012 (No Reserve Fund)	4,078,800	Jr. Series 2001, 2001-A, 2002, & 2002-A	4,486,511	407,711
	<u>\$ 30,698,450</u>		<u>\$ 36,566,736</u>	<u>\$ 5,868,286</u>

### 2013 Proposed Rate Adjustments

## Water Supply Capital

Budgeted Debt Service Forecast to Increase \$5.5 M

- Brackish Desal Plant Construction  
– \$98.2 M
- Edwards Aquifer Rights Acquisition  
– \$11.0 M
- Integration Pipeline Easements  
– \$5.8 M



## Water Delivery Capital

Budgeted Debt Service Forecast to Increase \$1.5 M

- Production R&R  
– \$22.1 M
- Governmental  
– \$16.5 M
- Main Replacements  
– \$11.7 M
- Distribution Growth & Other  
– \$14.9 M





# Wastewater Capital

Budgeted Debt Service Forecast to Increase \$2.0 M



- Infrastructure Renewal and Replacement \$62.3 M
  - Sewer Pipe Rehabilitation
  - Broadway Corridor
  - Donaldson Terrace
  - San Antonio River Outfall Pipeline
- Over-sizing and Replacement for Growth \$14.8 M
  - Leon Creek sewer main segment
- Governmental Sewer Projects \$18.7 M
- Lift Station Elimination \$3.5 M
- Other System Improvements \$25.7 M
  - Dos Rios Digester Mixing System & Upgrades
  - Data Management software and hardware
  - Service Crew Dispatch Center



# SSO Reduction Program Capital

Debt Service Forecast to Increase \$2.1 M



- Pipeline Rehabilitation
  - \$30.1 M
- Manhole Rehabilitation
  - \$2.0 M
- System Capacity Program
  - \$2.8 M



# Proposed Rates and Customer Bill Impacts

## 2013 Rate Adjustment

### Sewer System and Water Supply

- Sewer System
  - Capital Projects 1.8%
  - Operations & Maintenance 1.2%
- SSO Reduction Program
  - Capital Projects 0.9%
  - Operations & Maintenance 5.7%
- Water Supply
  - Desalination, Edwards water 1.7%
- TOTAL
  - Avg. Residential Bill Increase 11.3%



## 2013 Bill Projection

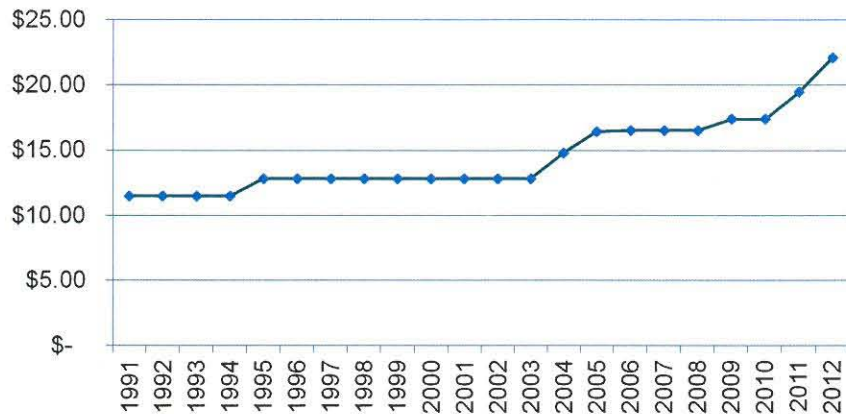
### Average Monthly Residential Bill

Service	2012 Approved	2013 Proposed	\$ Bill Increase	% Bill Increase
Water Supply	\$9.05	\$9.82	\$0.77	1.7%
Water Delivery	15.29	15.29	0.00	0.0%
Wastewater	22.11	26.57	4.46	9.6%
<b>Total</b>	<b>\$46.45</b>	<b>\$51.68</b>	<b>\$5.23</b>	<b>11.3%</b>
Pass-through Fees	3.27	2.97	- 0.30	-1.4%
<b>Total Bill</b>	<b>\$49.72</b>	<b>\$54.65</b>	<b>\$4.93</b>	<b>9.9%</b>

Average based on 7,788 gallons water/ 6,178 gallons sewer usage. Includes EAA and TCEQ fees.

## Average Residential Wastewater Bill

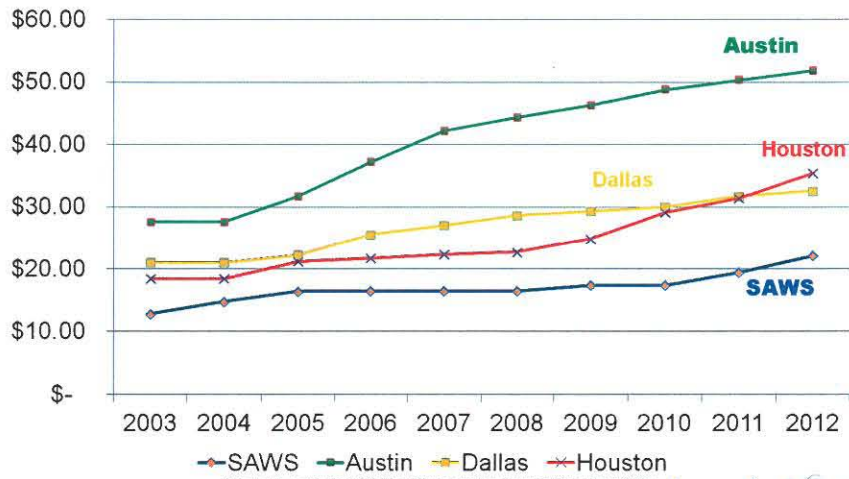
### Minimal Investment in SAWS System 1991 – 2003



Average based on 6,178 gallons sewer usage

## Average Residential Wastewater Bill

**\$9.50 Less Than Average in 2003 vs \$17.79 Less Than Average in 2012**



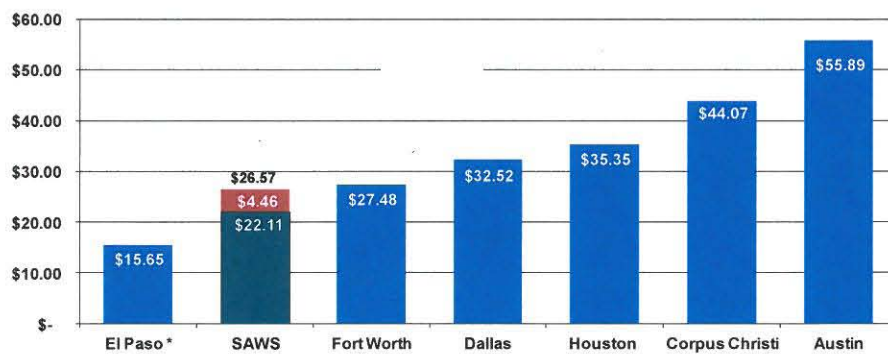
— SAWS — Austin — Dallas — Houston  
Average assumes 6,000 gallons sewer usage for all entities.



2013 Proposed Rate Adjustments

## Texas Residential Wastewater Bill Comparison

**Average Residential Wastewater Bill – November 2012**



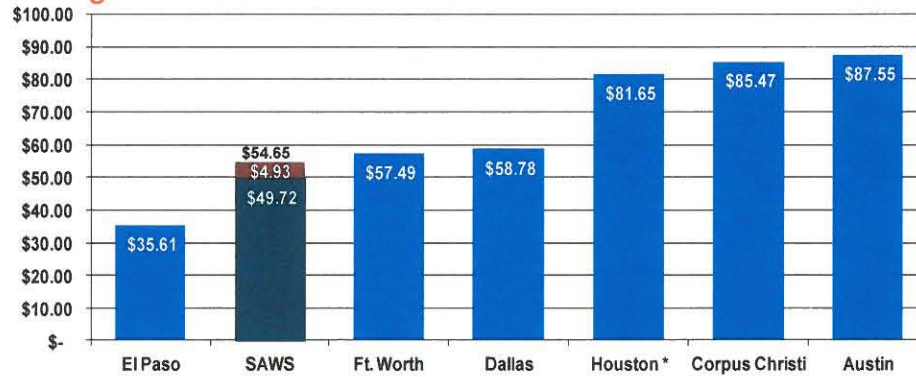
\* El Paso charges based on 100 cubic feet (CCF) increments; \$15.65 charge is for 8 CCF or 5,985 gallons which is closest equivalent to 6,178 gallons.  
Monthly charges as of October 2012, Includes TCEQ Fees.



2013 Proposed Rate Adjustments

# Texas Residential Bill Comparison

## Average Residential Water and Wastewater Bill – November 2012



\* Houston wastewater charges based solely on water usage  
 Monthly charges as of November 2012, Monthly Cost at 7,788 Gal. Water (Standard)/6,178 Gal. Wastewater. Includes EAA and TCEQ Fees.

2013 Proposed Rate Adjustments



# 2013 Proposed Rate Adjustments

**Robert R. Puente**  
 President/CEO

**Steve Clouse**  
 Senior Vice President and COO

**Doug Evanson**  
 Senior Vice President and CFO

November 14, 2012

San Antonio City Council B Session



## 2013 Rate Adjustment

### Other Sewer Capital Improvements

- Information Systems Support
  - Wastewater CIP Management Software \$1.4 million
  - Customer Information System Software \$0.6 million
  - IBM Mainframe Upgrade \$0.6 million
- Service Crew Dispatch Center
  - Sewer Maintenance & Response \$6.2 million
- Dos Rios Facility Improvements
  - Sludge Conditioning and Dewatering \$16.9 million

## SAWS Residential Bill Projection

As of November 14, 2012

Residential Bill (7,788 gallons water / 6,178 wastewater, ICL, Standard)						
	Adopted 2012	Budget 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017
<b>Monthly Residential Bill</b>						
Water Supply	\$9.05	\$9.82	\$12.56	\$13.99	\$14.75	\$17.29
Water Delivery	\$15.29	\$15.29	\$16.32	\$17.35	\$18.25	\$18.85
Wastewater	\$22.11	\$26.57	\$30.58	\$33.64	\$36.36	\$38.03
<b>Total</b>	<b>\$46.45</b>	<b>\$ 51.68</b>	<b>\$ 59.46</b>	<b>\$ 64.98</b>	<b>\$69.36</b>	<b>\$74.17</b>
<b>Increase</b>		<b>\$ 5.23</b>	<b>\$ 7.78</b>	<b>\$ 5.52</b>	<b>\$ 4.38</b>	<b>\$ 4.81</b>
<b>Increase %</b>		<b>11.3%</b>	<b>15.1%</b>	<b>9.3%</b>	<b>6.7%</b>	<b>6.9%</b>
EAA Fee	\$3.04	\$2.74	\$2.74	\$2.74	\$2.74	\$2.74
State-Imposed TCEQ Fee	\$0.23	\$0.23	\$0.23	\$0.23	\$0.23	\$0.23
<b>Total With EAA / TCEQ Fees</b>	<b>\$49.72</b>	<b>\$ 54.65</b>	<b>\$ 62.43</b>	<b>\$ 67.95</b>	<b>\$72.33</b>	<b>\$77.14</b>
<b>Increase % with EAA / TCEQ Fees</b>		<b>9.9%</b>	<b>14.2%</b>	<b>8.8%</b>	<b>6.4%</b>	<b>6.7%</b>

Rate Projections from the 2012 Budget Process, excludes COSA Stormwater

# **EXHIBIT “F”**

# 2012 Water Management Plan

**Robert R. Puente**  
President/CEO

November 14, 2012

San Antonio City Council B Session



## 2012 Water Management Plan

November 14, 2012

### Planning Assumptions

- Per Capita Water Use
  - 143 gallons per capita per day (GPCD) in 2011, the hottest, driest year recorded in Texas
- Population Projection for Entire Service Area
  - 1.2% annual growth or ~20,000 people per year
- Current Supplies
  - As impacted by drought and the deepest restrictions
- Drought of Record
  - Replicate the worst case scenario from the 1950s





## Success to Date

### Adding new water supplies

- SAWS supplies increased 39% since 2004 (excluding ASR)
  - Supplies increased by 79% with ASR
- Successful projects added over the last few years include:
  - Regional Carrizo Project
  - Aquifer Storage & Recovery (ASR)
  - Additional Edwards water rights
  - Canyon Lake, Trinity Aquifer, Local Carrizo Aquifer

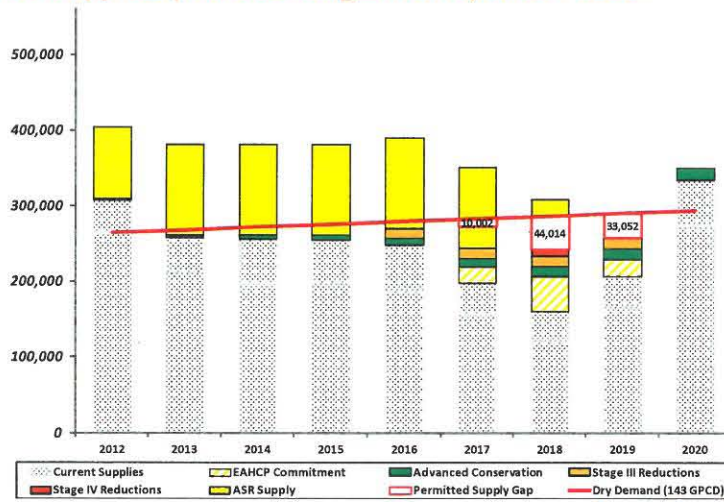
## Supply and Demand during Drought

### What we have learned

- Supply
  - Edwards Aquifer heavily restricted during drought
  - Other sources limited by water availability during drought
  - A balanced approach of conservation and new supplies is required
  - Water Conservation is a water supply
- Demand
  - Increase of ~20,000 people/year will increase demand
  - Drought increases demand (actual 2011 data)
  - Drought restrictions and water conservation alone **will not** fill the Supply Gap

# Drought of Record Supply Gaps

No New Supplies (Includes Stage III & IV) 2012 - 2020



# Filling the Supply Gaps

Strategic Elements

- Additional Edwards Supplies
- Expanded Local Carrizo Aquifer
- Brackish Groundwater Desalination
- Regional Water Supply Project
- Demand Reductions
  - Outdoor Water Conservation

## Planned Supplies

### Edwards Aquifer Permitted Rights & Expanded Local Carrizo

- Edwards Aquifer Rights
  - Over 14,000 acre-feet available
  - Some currently under lease and would require either purchase or lease renewal
- Local Carrizo Aquifer
  - Geology and preliminary feasibility indicate up to 21,000 acre-feet of production
  - Potential synergies with existing ASR infrastructure

## Planned Supplies

### Brackish Desalination Plant

- On SAWS property in Bexar County
- Three-Phase Program
  - Phase 1: 12,210 ac-ft/yr (2016)
  - Phase 2: 12,210 ac-ft/yr (2021)
  - Phase 3: 6,105 ac-ft/yr (2026)
  - Total: 30,525 ac-ft/yr
- \$296.8 million estimated total cost
  - \$179 million for Phase 1
  - \$45.4 million committed to date



# Planned Supplies

## Integration Pipeline

- 45-mile integration pipeline
  - Phase I complete by 2016
  - Phase II complete by 2022
- Provides transport flexibility
  - Desal supply
  - Local Carrizo Aquifer supply
  - ASR supply
- \$182 million estimated program cost



# Regional Water Supply Project Finalists



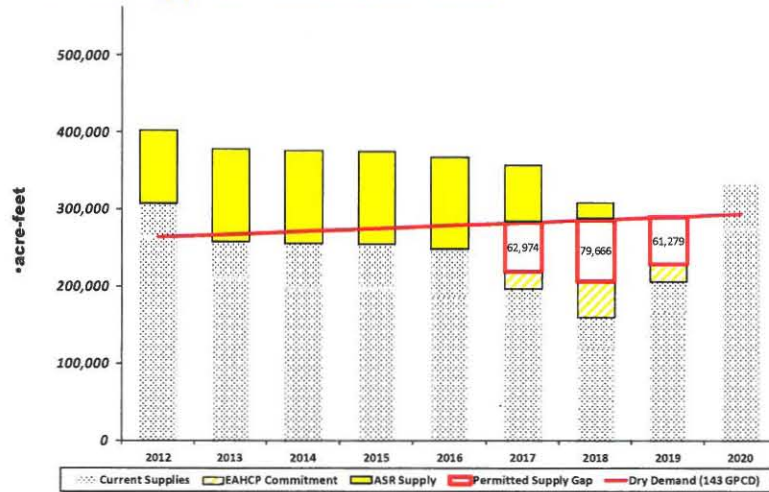
# Planned Supplies

## Outdoor Water Conservation

- Reduce GPCD from 143 to 135 by 2020
- Pursue permanent reductions in outdoor water use
  - Efficiency in landscape and outdoor water use will be highlighted and incentivized through new programs
  - Enforcement of year-round rules
- Expected yield of 16,500 ac-ft/yr by 2020

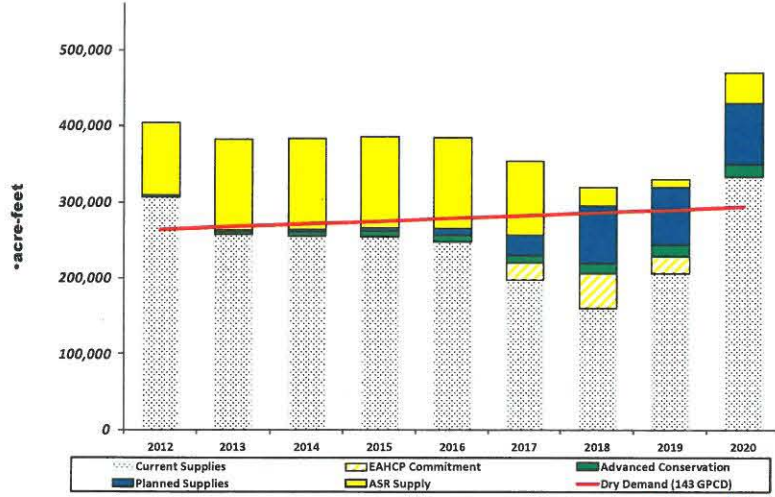
# Drought of Record Supply Gaps

## If No New Supplies Added 2012 - 2020



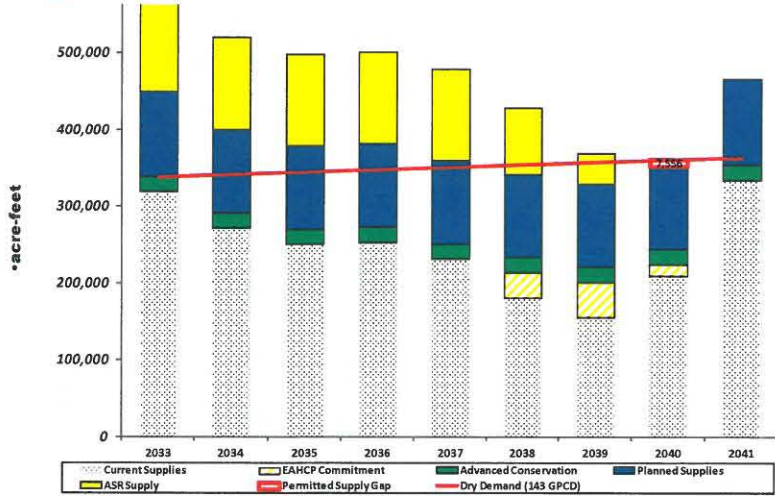
# Recommended Strategy

## Drought of Record 2012 – 2020



# Recommended Strategy

## Drought of Record 2033 – 2041



## Conclusions

- Additional sources of supply are needed to accommodate demands associated with growth
  - Water Conservation is a significant supply
  - Drought Restrictions and Conservation alone **will not** fill the Supply Gap
- Reduced reliance on Edwards
  - Benefits Aquifer levels and Springs
  - Benefits ASR levels
  - First supply gap in 2040
- The Water Management Plan requires a balanced approach of conservation **and** new supplies

## Recommendations

- Continue track record of success by implementing the recommended Water Management Plan
  - Seek SAWS Board approval in December 2012
  - Seek City Council support in January 2013
- Negotiate contract for sustainable and affordable Regional Water Project(s)
  - Kick off upon approval of 2012 WMP

# 2013 Sewer Spill Reduction Program, Capital Improvements, and Water Supply

## Robert R. Puente

President/CEO

## Steve Clouse

Senior Vice President & COO

## Kelley Neumann

Senior Vice President

## Doug Evanson

Senior Vice President/CFO

December 6, 2012

San Antonio City Council



December 6, 2012

## SAWS Mission and Vision Guide our Service

### Providing Life-Essential Services

### **Mission**

#### Sustainable **Affordable Water Services**

- Acquire water supplies to sustain San Antonio for the next 50 years, even during the worst drought
- Maintain among the most affordable rates in Texas

### **Vision**

#### To Be Leaders in Delivering **Responsible Water Services for Life**

- Comply with the Clean Water Act by reducing sewer spills that can affect the environment, homes and businesses





# SAWS is Aligned with SA2020

## San Antonio's Water and Wastewater Utility

# SA2020



- Mayor Castro requested our alignment with the SA2020 Vision
- Primary area of support
  - Community Safety and Family Well-Being
  - Natural Resource & Environmental Sustainability
  - Economic Competitiveness
  - Government Accountability & Civic Engagement



# SAN ANTONIO IS WATER'S MOST RESOURCEFUL CITY

- Long-term water plan
- Aquifer Storage and Recovery
- Nationally renowned water conservation programs
- The nation's largest direct recycled water system
- Among the lowest bills in Texas





2013 Programs

## Four Core Services

### Separate Funding Streams Required

- **Water Supply**
  - Development & provision of water resources to ~1.7 million people
- **Water Delivery**
  - Distribution of water from pump stations to customer's premises (~460,000 connections & 6,100 miles of main)
- **Wastewater (Sewer)**
  - Collection and treatment of wastewater (~410,000 connections & 5,200 miles of main)
- **Heating and Cooling**
  - Provide heating and cooling services to certain customers



2013 Programs

## Budget Components

### Rate Increase Drivers for our Core Services

- **Capital Improvements Program (CIP)**
  - Infrastructure projects are started every year, requiring new bond funding and rate increases every year
  - Infrastructure projects can require phasing over multiple years, requiring multiple rate increases
- **Operations & Maintenance (O&M)**
  - Recurring costs for daily operations don't require annual rate increases
  - New incremental operating costs require rate increases

# 2013 Bill Adjustment

## Sewer System and Water Supply



- Sewer Spill Reduction Program
  - Capital Projects 0.9%
  - Operations & Maintenance 5.7%
- Regular Sewer System
  - Capital Projects 1.8%
  - Operations & Maintenance 1.2%
- Water Supply
  - Capital Projects 1.7%
- TOTAL
  - Average Residential Bill Increase 11.3%

2013 Programs

Page 7



## Presentation Overview

### **Steve Clouse**

Sewer Spill Reduction Operating Program (O&M)

### **Kelley Neumann**

Sewer, Water and Water Supply Capital Projects  
(Capital Improvement Program, or CIP)

### **Doug Evanson**

Water Supply Fee, Financial and Rate Impacts

2013 Programs

Page 8



# Steve Clouse, Senior Vice President & COO

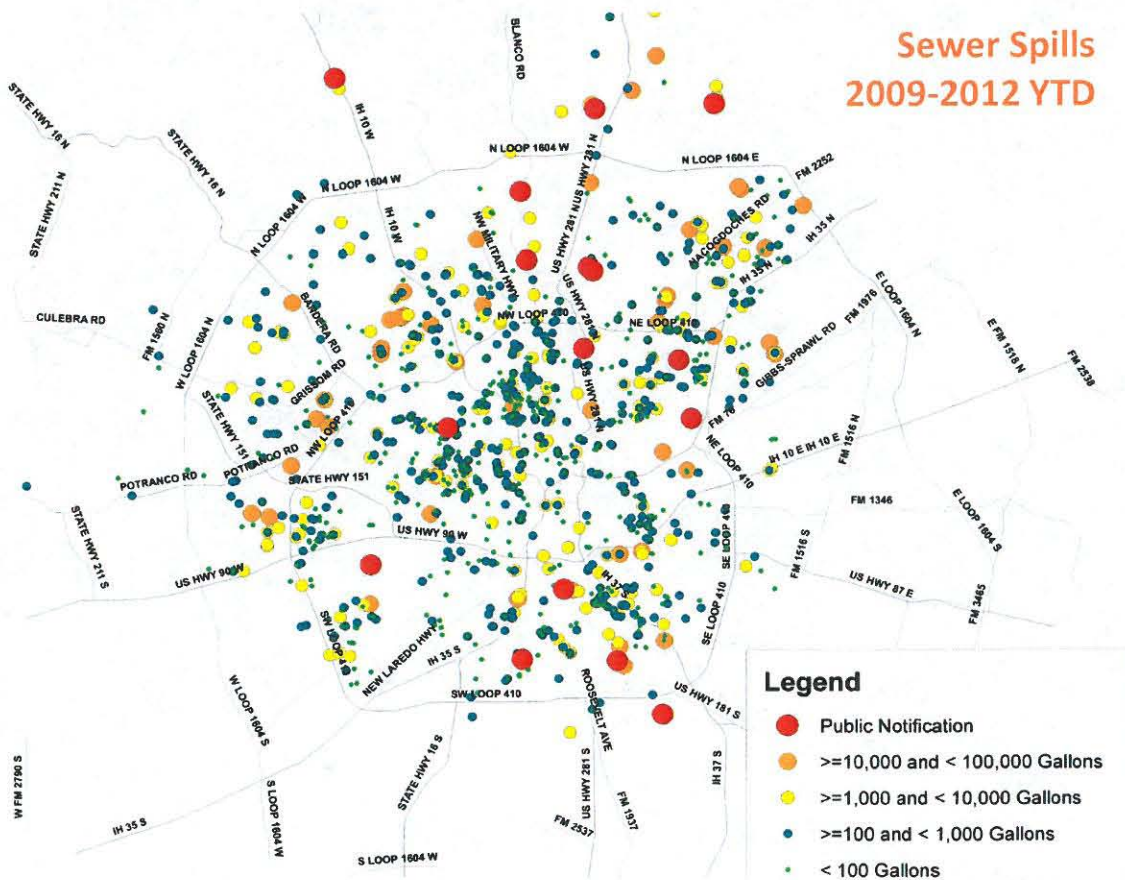
## Sewer Spill Reduction Operating Program (O&M)

2013 Programs

Page 9



### Sewer Spills 2009-2012 YTD



# Reducing Sewer Spills

Compliance with the Clean Water Act



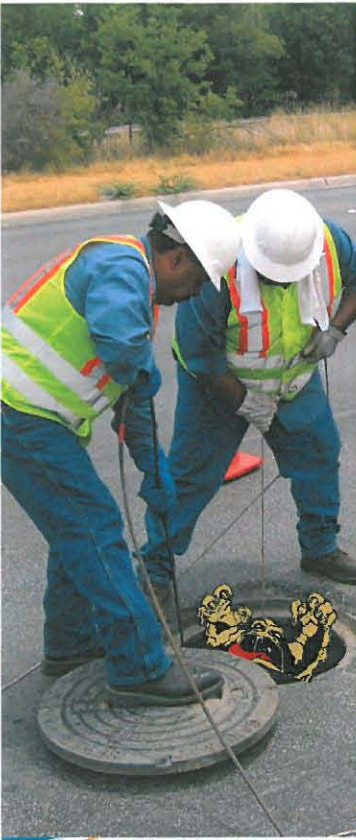
2013 Programs

Page 11



## Reducing Sewer Spills - 2013

### A Comprehensive Operating Approach



- Cleaning is the key
  - Grease and Debris are the major drivers of sewer spills >72%
- Videotape, inspect and clean sewer lines
- Prevention
  - Keep the grease out
- Provide for capacity
- Repair or Rehabilitate problems causing sewer spills

**Sustained effort + correct tools = results**

2013 Programs

Page 13



## Reducing Sewer Spills - 2013

### Cleaning Small Pipelines (<24" diameter)

- Clean the right pipe at the right time
  - Pressure washing, collecting debris and proofing lines
  - Removed material is evaluated and rated
    - Type (grease, debris, roots)
    - Quantity (rated as 1 - 3)
  - Cleaning frequency adjusted based on collected debris and rating

2013 Programs

Page 14



# Reducing Sewer Spills - 2013

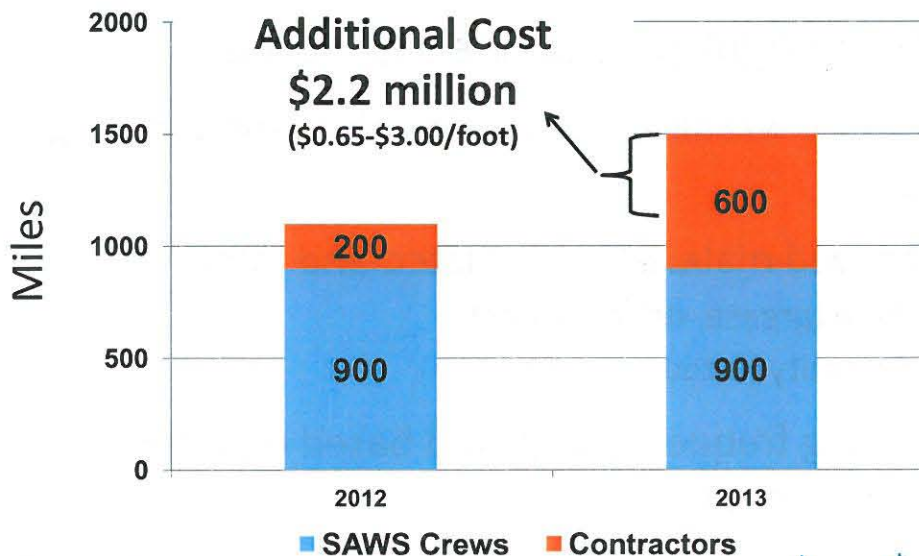
## Cleaning Small Pipelines (<24" diameter)

- Clean the right pipe at the right time
  - 4,900-mile small pipeline system is on a cleaning cycle for every pipe segment
  - Pipes will be cleaned at different frequencies in 2013

Frequency	Miles	Total 2013
Twelve Times	5.3	64
Four Times	28	112
Two Times	87	174
One Time		1150
<b>Total</b>		<b>1500</b>

# Reducing Sewer Spills - 2013

## Cleaning Small Pipelines (<24" diameter)





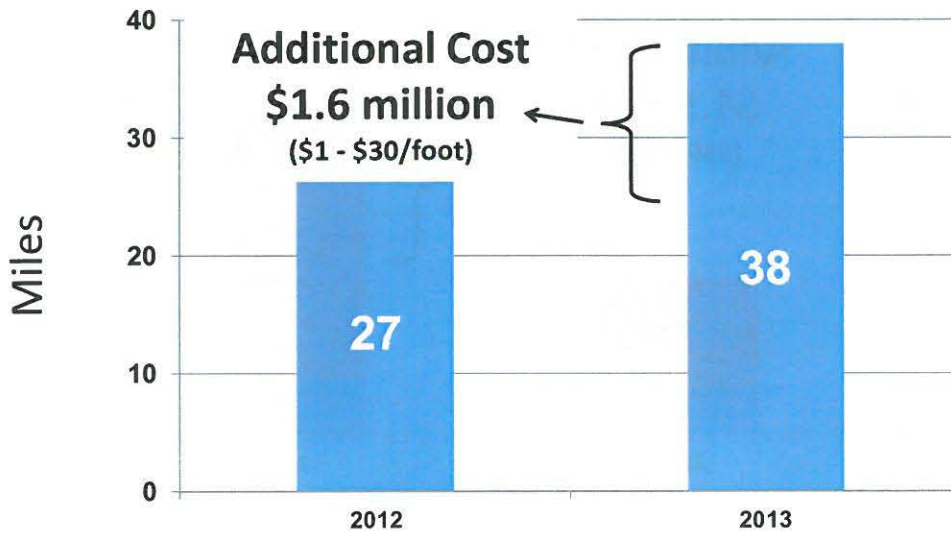
# Reducing Sewer Spills - 2013

## Cleaning Large Pipelines (2' – 9' diameter)

- Clean the right pipe at the right time
  - 358-mile large pipeline system
  - Cleaning requires a challenging physical removal process
    - Confined space entry
    - Access challenges
    - Specialized tools
    - No service interruption

# Reducing Sewer Spills - 2013

## Cleaning Large Pipelines (2' – 9' diameter)





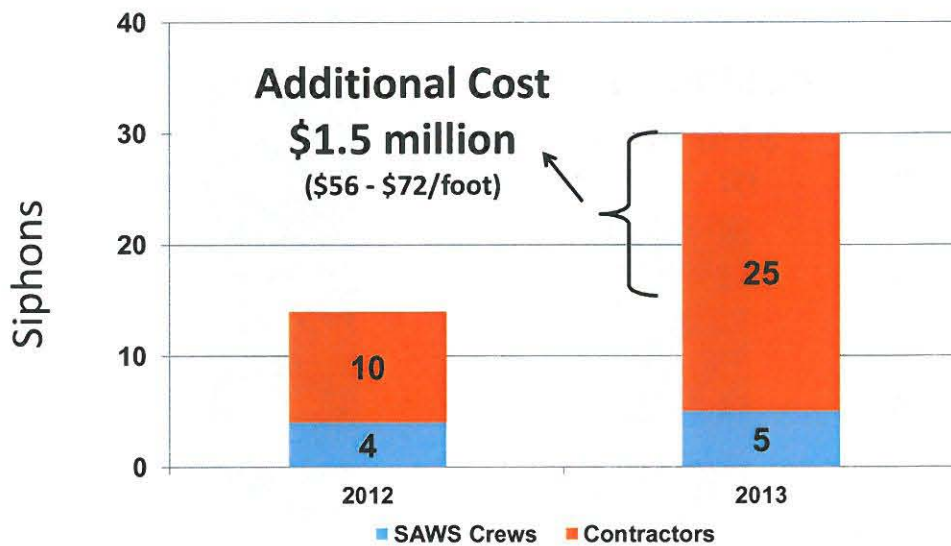
# Reducing Sewer Spills - 2013

## Cleaning Siphons

- Siphons are points where pipelines go under a river or some other low point
  - Approximately 300 siphons in the system
  - Natural accumulation of sediments
  - Cleaning is prioritized by sewer spill history, flow and pipe characteristics, and pipe cleaning results from the area

# Reducing Sewer Spills - 2013

## Cleaning Siphons



## Reducing Sewer Spills - 2013

### Cleaning Lift Stations

- Lift Stations lift sewage to higher elevation to return to gravity flow conditions
  - SAWS crews will continue to clean all lift stations on a minimum 6 week basis, with the exception of Acequia which will be cleaned as needed with specialized tools.
  - No cost impact anticipated

## Reducing Sewer Spills - 2013

### Assessment of System Condition

- Acquire information on the condition of the system in the most cost-effective manner
  - Proofing
  - Pole Cams
  - Video Taping Pipes
  - Physical visual inspections of all manholes and lift stations

## Reducing Sewer Spills - 2013

### Assessment of System Condition

- Proofing – Device is pushed through pipes to ensure the line is clean and free of obstructions
  - No cost impact anticipated
- Pole Cams – photography through a manhole
  - A new SAWS program to assess 50 miles in 2013
  - Clay pipes up to 40 years old to be photographed
  - Additional cost of \$130,000

## Reducing Sewer Spills - 2013

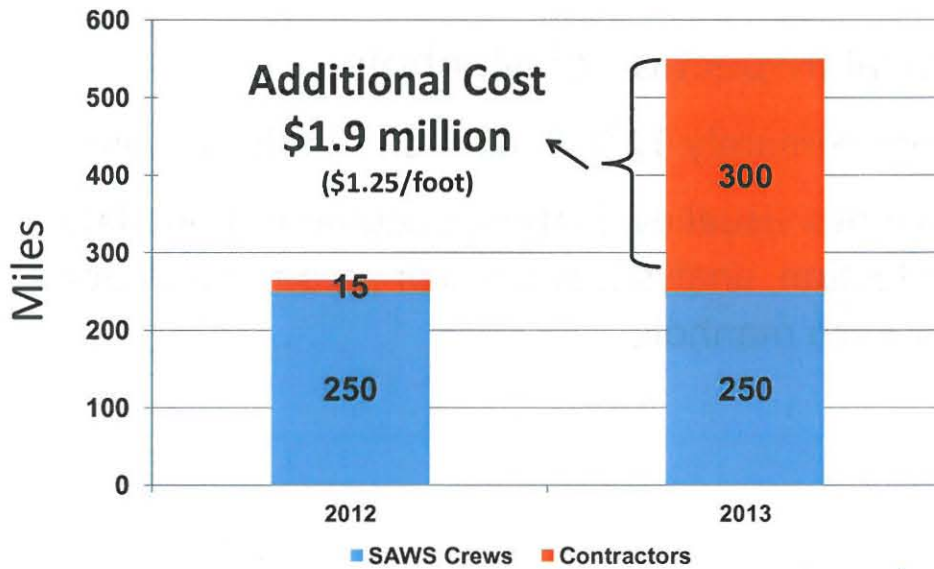
### Assessment of System Condition

- Video Taping Pipes – televising with closed circuit television (CCTV) will occur:
 

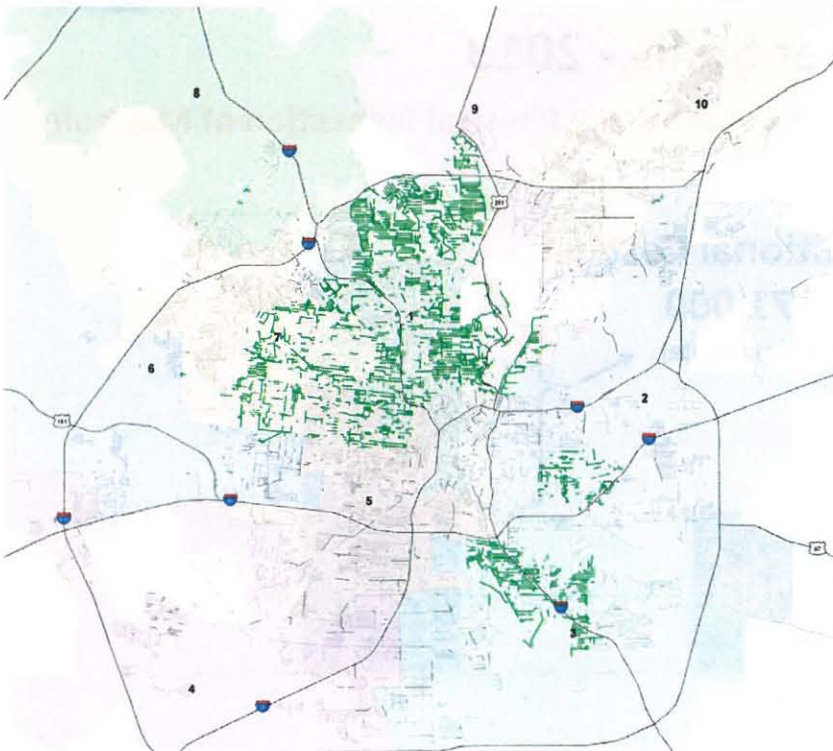
– Based on type/age/location	250 miles
– On the Edwards Aquifer Recharge Zone	127 miles
– As quality control work	75 miles
– After every sewer spill	50 miles
– As referrals from other assessment	30 miles
– In conjunction with City bond program	20 miles

# Reducing Sewer Spills - 2013

## Assessment of System Condition by Video Taping Pipes



# 2013 Small Line Video Taping



- Clay & Concrete Pipe
- 250 miles scheduled
- Prone to sewer spills

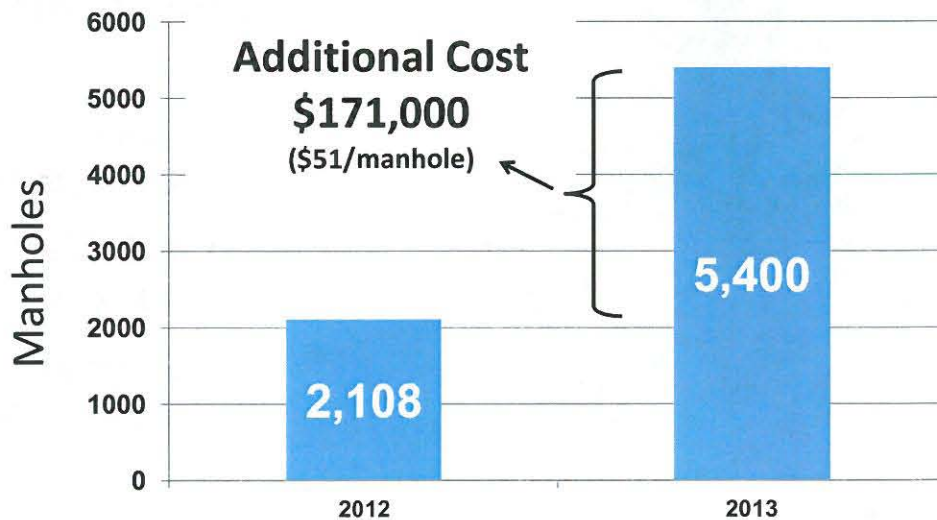
# Reducing Sewer Spills - 2013

## Assessment of System Condition

- Physical Inspection of Manholes
  - Approximately 97,000 manholes in the system
  - Includes visual evaluation, documentation, data collection, analysis, and repair recommendations for each manhole

# Reducing Sewer Spills - 2013

## Assessment of System Condition by Physical Inspection of Manholes



## Reducing Sewer Spills - 2013

### Assessment of System Condition

- Physical Inspection of Force Mains
  - Force Mains are pressurized sewer pipes downstream from Lift Stations
  - SAWS has 160 Force Mains (80 miles)
  - Includes visual inspection of force main pipelines and associated valves, photo documentation, data collection, analysis and repair recommendations
  - Additional cost of \$45,000 for 5 miles

## Reducing Sewer Spills - 2013

### Prevention Program

- Fats, Oils & Grease (FOG) Reduction
  - City Council approved revisions to FOG Program and Ordinance in 2011
  - Grease control requirements expanded from 740 restaurants to 3,800 food service establishments
  - All 3,800 establishments now inspected annually
  - No additional cost in 2013



## Reducing Sewer Spills - 2013

### Capacity Modeling Program

- Evaluation of sewer pipeline ability to handle increases in flow during specified rainfall events
  - Meters capture rainfall data used in creating computer models on system performance
    - 2012 – 48 portable flow meters in system
    - 2013 – 200 portable flow meters in system
  - Additional cost of \$960,000

2013 Programs

Page 31



## Reducing Sewer Spills - 2013

### Capacity Constraint Program

- Investigate each SSO associated with rainfall events to determine if cause is capacity, maintenance, or condition driven
  - A new SAWS program for up to 15 occurrences
  - Additional cost of \$75,000
- Expand Smart Covers program – manhole lids that alarm when water levels exceed set points
  - 2012 – 120 Smart Covers in system
  - 2013 – 188 Smart Covers in system
  - Additional cost of \$300,000

2013 Programs

Page 32



## Reducing Sewer Spills - 2013

### Capacity Event Investigation Program

- Assessment during rainfall events by physical investigation, flow metering and high water line chalking
- Depends on rainfall events and requires standby/rapid response of contractors
  - A new SAWS program estimates 7 events
  - Additional cost of \$100,000

## Reducing Sewer Spills - 2013

### Consultant Technical Support

- Utilize a Program Manager for technical support on sewer spill reduction strategies and to provide staffing support to meet program requirements
- Support activities include:
 

– Master scheduling	– Milestone
– Staffing evaluation and analysis	– Bid documents
– Document and data management protocols	– Budget support
– Software and data management support	– Staff training
- Additional cost of \$1,866,000



## Reducing Sewer Spills - 2013

### Other Consultant Technical Support

- Additional SAWS or Project Manager positions needed:
  - Engineering Construction Inspectors 2
  - Data Analyst / Reporting 1
  - Engineer for contract cleaning and CCTV programs 1
  - Additional utility workers for cleaning and CCTV 6
  - Engineer for Lift Stations 1
  - Flow meter modeler 1
  - Smart Cover Program Utility Workers 1
  - Additional GIS staff 2
  - Additional IT staff support 5
- Additional cost of \$1,274,000

## Reducing Sewer Spills - 2013

### Pipe Replacement Recommendations

- To determine if a pipe replacement is required
  - Televis line and evaluate condition
  - Use national standard to rank defects
  - Other ranking factors considered
  - Submit replacement request to engineering
- Highest rankings are handled as immediate repairs, while others are handled as planned replacements
  - Currently 87 miles of pipe pending planned replacement

\*All Edwards Aquifer Recharge Zone pipes must be televised every 5 years and defects must be repaired within one year.

# Sewer System Overflows

Compliance with the Clean Water Act



2013 Programs

Page 37



***Kelley Neumann, Senior Vice President***

Sewer, Water and Water Supply Capital Projects  
(Capital Improvement Program, or CIP)

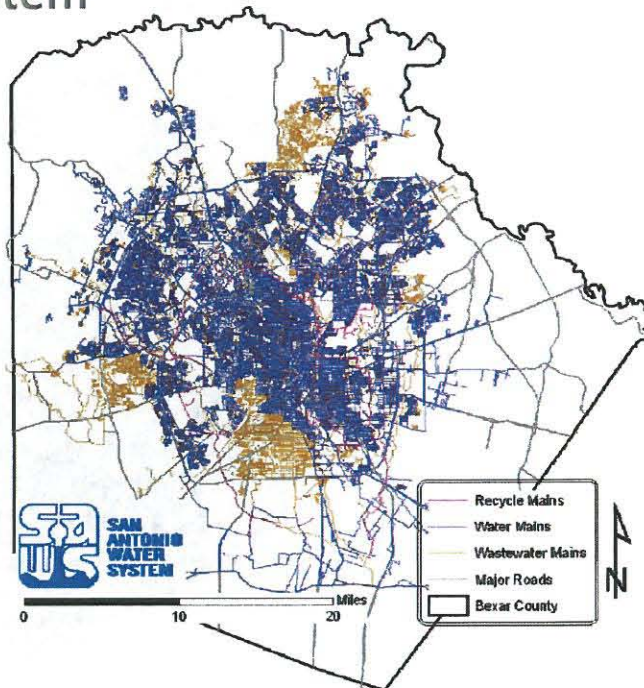
2013 Programs

Page 38



## San Antonio Water System

- ~6,100 miles of water main
- ~5,200 miles of sewer main
- 117 miles of recycle main
- 36 water storage tanks
- 83 pump stations
- 160 lift stations
- 3 wastewater treatment plants
- Aquifer Storage and Recovery plant
- Infrastructure book value ~ \$4 billion



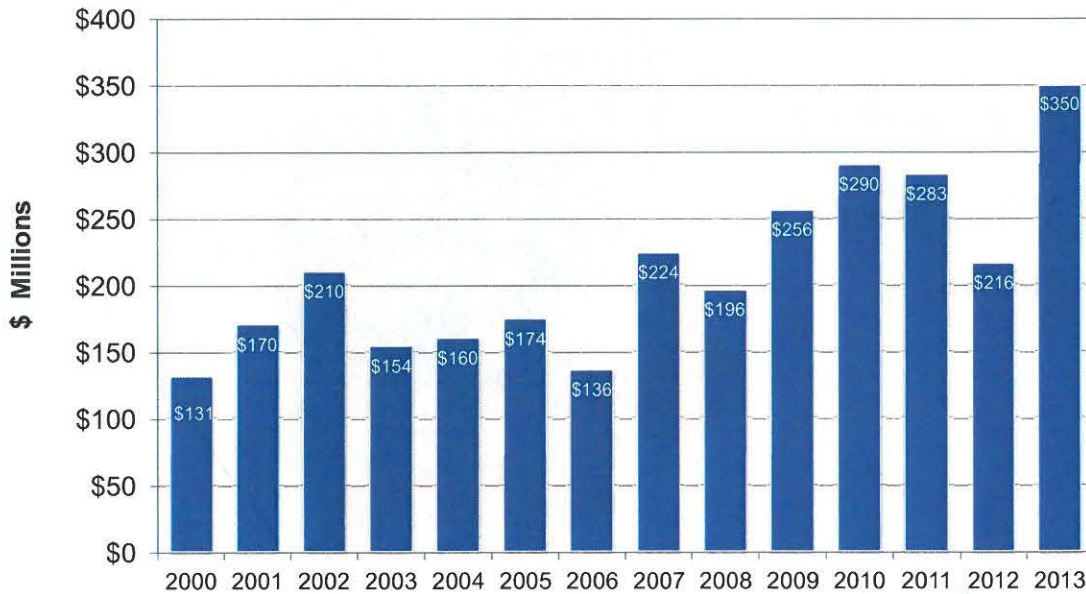
## Capital Project Planning Process

### A Continuous, Cyclical Process

- In Quarter One of each year, SAWS review all projects on the 5-year plan
- Projects are ranked using a risk assessment model
- Projects in each core business and category and reviewed against the budget targets for that year
- Projects that rank low and/or exceed the budget are moved to a later year
- An interactive and dynamic process that involves many discussions between Engineering and Finance

# Historical Capital (CIP) Program/Budget

2013 is Largest Year in SAWS History



2013 Programs



# Capital Improvements Summary

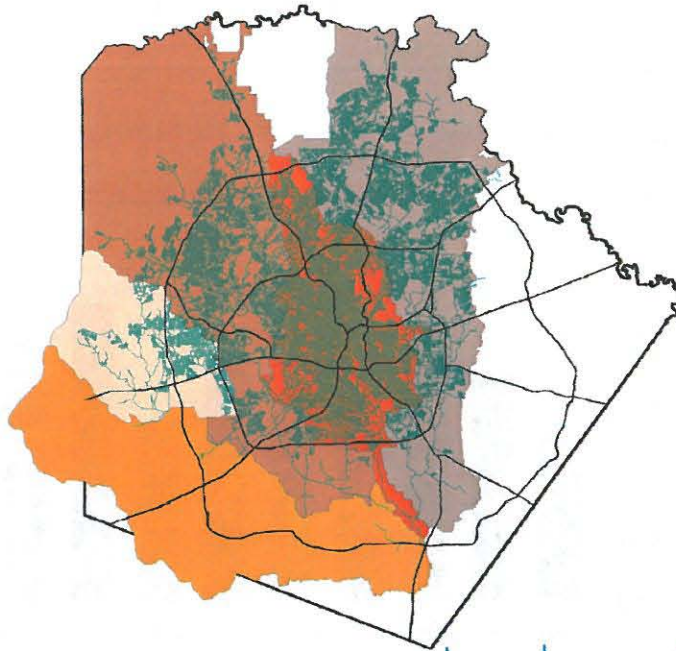
	\$ in millions
Wastewater	\$159.8
Water Delivery	65.2
Water Supply	118.9
Heating & Cooling	<u>6.2</u>
<b>TOTAL</b>	<b>\$350.2</b>

2013 Programs



# SAWS Sewer System

- 5 Sewersheds
- 3 Treatment plants



# Wastewater Capital Projects

**\$159.9 M Capital Investment**

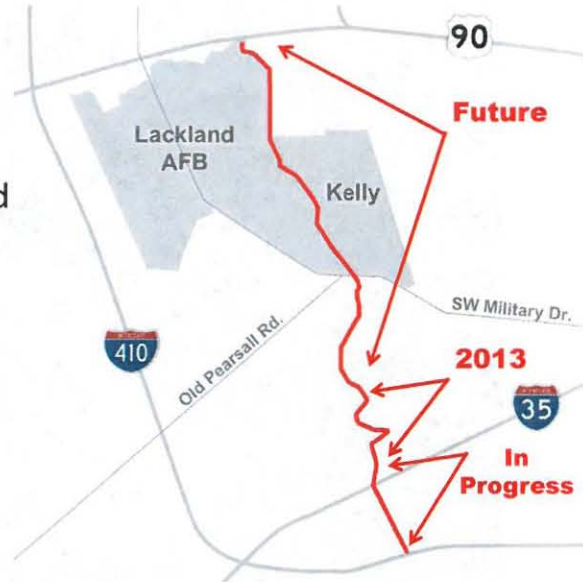
- Infrastructure Renewal and Replacement \$97.2 M
  - Sewer Pipe Rehabilitation
  - Broadway Corridor
  - Donaldson Terrace
  - San Antonio River Outfall Pipeline
- Over-sizing and Replacement for Growth \$14.8 M
  - Leon Creek sewer main segment
- Governmental Sewer Projects \$18.7 M
- Lift Station Elimination \$3.5 M
- Other System Improvements \$25.7 M
  - Dos Rios Digester Mixing System & Upgrades
  - Data Management software and hardware
  - Service Crew Dispatch Center



## W-6: Western Watershed Sewer Relief Line Project 2

- Add capacity to accommodate increased flows due to growth in the Western Sewershed
- 2013 project will replace about one mile of 54 inch reinforced concrete pipe and 96-inch fiberglass reinforced pipe along Leon Creek from Edward Schlundt Road to Quintana Road
- 2013 cost is \$14,745,900
- Total project will replace 8 miles of sewer main, phased over 6 consecutive CIP construction years from 2012-2017. Construction cost estimated to be \$85 million.

Budget book: page 157



2013 Programs

Page 45



## W-6: Collapse at New Laredo Hwy



2013 Programs

Page 46



## W-6: Emergency Repair at New Laredo Hwy



2013 Programs

Page 47



## C-13 Broadway Corridor Project – Josephine Street to South Alamo

December 6, 2012

- Replace sewer main in poor condition to increase capacity due to growth in the Central Sewershed
- 2013 project is about 0.85 miles along the Broadway Corridor from South St. Mary's to Josephine Streets at a cost of \$8,507,250
- Entire project will replace 4 miles of sewer main in 2013-2016 at a total cost of approximately \$28 million

Budget book: page 162



2013 Programs

Page 48



## C-33 Broadway Corridor: Carnahan to Mulberry

- Replace sewer main in poor condition to increase capacity due to growth in the Central Sewershed
- 2013 project is 1.8 miles at a cost of \$9,074,400 and involves work on Segments C and D
- Total project will replace or rehabilitate approximately 10 miles of sewer main located along the Broadway Corridor with portions of the project extending into the Olmos Basin area thru the City of Alamo Heights at a total cost of approximately \$38 million

Budget book: page 163



Page 49



2013 Programs

## LS 11 and LS 111 Elimination Project

- Eliminating Lift Stations reduces the potential for overflows and avoids costly upgrades
- Project will eliminate two Lift Stations by constructing approximately 2 miles of gravity sewer main to existing 36-inch gravity sewer main
  - LS 11 on Thousand Oaks
  - LS 111 on Wetmore Rd
- 2013 budget is \$3,119,325

Budget book: page 164



Page 50



2013 Programs





# Main Replacement & Repair

**\$67 M Capital Investment**

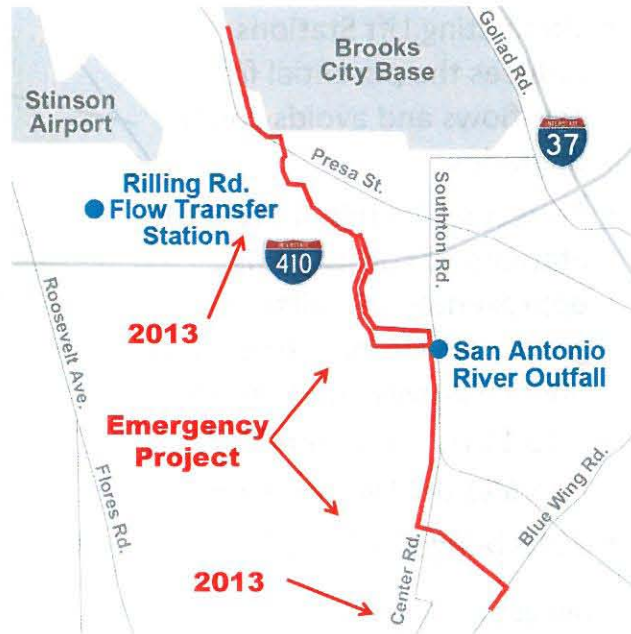
Main Replacement (SAWS crews)	\$3.7 M
Sanitary Sewer Overflow Rehab	\$20.4 M
Small Diameter Rehab	\$27.6 M
Large Diameter Rehab	\$2.5 M
Capacity Program	\$2.8 M
Manhole Rehab	\$1.9 M
Unspecified Engineering	\$2.2 M
Open Cut Sewer Replacement	\$2.6 M
Sewer Laterals	<u>\$3.3 M</u>
<b>TOTAL</b>	<b>\$67.0 M</b>

Budget book: pages 175-184



# San Antonio River Outfall Project 1

- Replace 2.4 miles of sewer main in poor condition along the San Antonio River from Blue Wing Road to north side of Loop 410
- Approximately 4,800 feet constructed in 2012 emergency project at a cost of \$2.5M
- 2013 cost is \$11,116,140
- Total project will replace or rehabilitate 5.6 miles of 48 inch reinforced concrete pipe in 2013-2014
- Total project cost is \$16 million



Budget book: page 183





2013 Programs

## Treatment Rehabilitation Projects

- \$4.4 million for design of sludge dewatering, aeration and settling tanks, piping, and instrumentation and automation rehabilitation and upgrades at Dos Rios and Leon Creek
- \$12.5 million for Dos Rios Digesters cleaning, repair, and upgrades construction

Budget book: pages 187-192

Page 53



2013 Programs

## Water Supply Capital Projects

**\$118.9 M Capital Investment**

- Brackish Desal Plant Construction
  - \$98.0 million
- Edwards Aquifer Rights Acquisition
  - \$11.1 million
- Integration Pipeline Easements
  - \$5.8 million
- Regional Carrizo Project Pipeline
  - \$1.1 million
- Recycle Water
  - \$2.8 million

Budget book: pages 231-240

Page 54



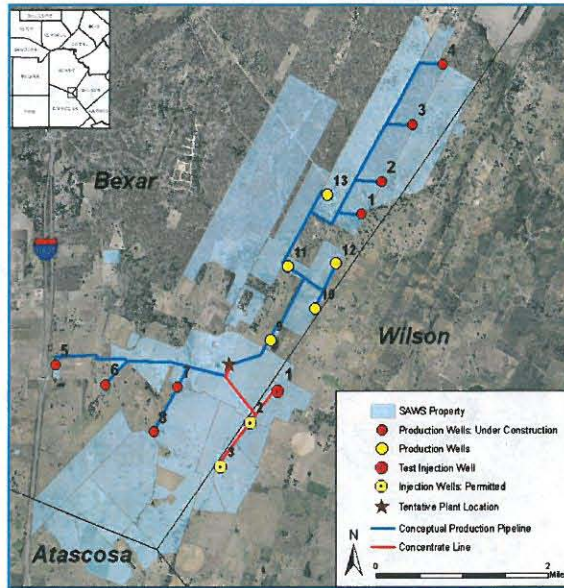
# 2013 Desal Capital Cost

Total \$98,034,496

Construction of:

- 5 - Production Wells
- 2 - Injection Wells
- Reverse Osmosis Treatment Plant
- 12.3 miles of pipeline
- Electrical / SCADA / Site Work

Budget book: page 235



# Water Delivery Capital Projects

**\$65.2 M Capital Investment**

- Production Renewal & Replacement \$22.1 M
  - Nacogdoches Pump Station
  - Basin Pump Station
  - Shields/Cross Mountain Tank Mixing Systems
- Governmental Water Projects \$16.5 M
- Main Replacements \$11.7 M
  - Valves, Services & Meters
  - Meter Replacement Program
- Distribution Growth \$6.0 M
- Other \$8.9 M
  - Service Crew Dispatch Center
  - CIP Program Management Software

Budget book: pages 195-227

## Olmos Basin Pump Station

**\$4.6 M Capital Investment**

- Basin Pump Station is over 50 years old with 6 wells and 6 high service pumps
- Replacement of Electrical Switch Gear due to recent fires
- Replacement of all electrical wiring
- Replacement of 6 High Service Pumps
- New metering equipment
- Replace basement piping and valves
- Replace yard valves, piping and vaults
- Construction cost \$ 4,619,200

Budget book: page 227



2013 Programs

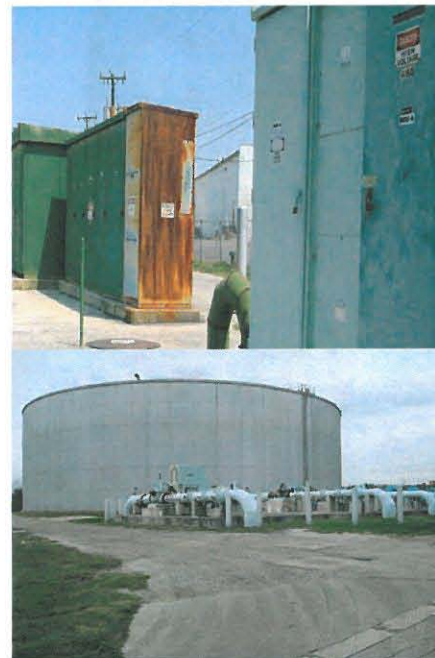
Page 57



## Naco Pump Station Improvements

- Major primary pump station over 25 years old serving 3 pressure zones
- Addition of new 7.5 million gallon tank
- Replacement of electrical equipment
- Two additional high service pumps
- Replacement and upgrade of chlorine and fluoride systems
- Replacement of yard valves and piping
- Construction cost \$15,012,400

Budget book: page 226



Page 58



2013 Programs

# Governmental Capital Projects

- Adjustment, Installation, and Replacements projects coordinated with COSA, TXDOT, Bexar County, and other agencies
- Major projects at Port SA, Houston St. and Market St., Huebner Creek, storm water drainage, and streets and alley maintenance programs
- \$18.7M sewer, \$16.5M water



Budget book: pages 169-171, 209-211

# Heating and Cooling

**\$6.2 M Capital Investment**



- Governmental Projects      \$6.0 M
- Other                                \$0.2 M

Budget book: pages 243-285

# CIP Project Life Cycle

- Time from project identification to finishing construction may be ten years due to prioritization and funding constraints
- Current long term CIP plan has projects identified through 2022



# Presentation Overview

***Doug Evanson, Senior Vice President & CFO***  
Water Supply Fee

# Water Supply Sources & Uses

January 2001 to October 2012

	Actual (\$ in Millions)
<b>Sources of Funds</b>	
Water Supply Fee	\$805.0
Operating Transfer from Water Delivery	133.2
Capital Recovery Fees	72.8
Recycled Water Sales	42.0
Non-Operating & Other	50.1
<b>TOTAL</b>	<b>\$1,103.1</b>
<b>Uses of Funds</b>	
Operations and Maintenance	431.6
Debt Service & Expenses	308.0
Transfer to COSA	27.2
Transfer to R & R - Restricted	76.8
Transfer to R & R - Unrestricted	259.5
<b>TOTAL</b>	<b>\$1,103.1</b>

2013 Programs

Page 63



# Water Supply Operating and Maintenance Summary

January 2001 to October 2012

	Actual (\$ in Millions)
<b>Operating and Maintenance</b>	
Active Water Supply Projects & Initiatives	\$223.0
Inactive Water Supply Projects & Initiatives	36.7
Conservation Program – Net Loss	6.7
Stormwater Program – Net Loss	5.6
Support Services	159.6
<b>TOTAL</b>	<b>\$431.6</b>

2013 Programs

Page 64



# O&M Costs By Project

January 2001 to October 2012

(\$ in Millions)

Active Water Supply Projects & Initiatives:	
Edwards (leases and aquifer protection)	\$ 70.7
Canyon Lake - GBRA	55.9
Recycled Water	29.2
Regional Carrizo	21.1
Trinity Aquifer Projects	19.2
Brackish Desalination Phase 1	1.3
	<hr/>
	\$ 197.4
Integration	8.9
Aquifer Storage & Recovery Project	16.7
	<hr/>
	\$ 223.0
Inactive Water Supply Projects:	
LCRA - Net of Cash Recovery	\$ 25.2
Lower Guadalupe	6.3
Simsboro Aquifer	4.4
Recharge Initiative	0.8
	<hr/>
	\$ 36.7

2013 Programs

Page 65



# Support Services – January 2001 to October 2012

83% of Costs Covered by Operating Transfer from Water Delivery

\$ in millions

Information Systems & Finance	\$ 31.2
Billing & Collections	29.0
Human Resources, Safety, Other Benefits <sup>1</sup>	24.3
Facilities Maintenance	15.4
Communication & Outreach	9.6
Corporate Facilities	9.0
Direct Water Supply Support	8.3
Legal - Water Law	6.6
Other Support Services <sup>2</sup>	26.2
	<hr/>
	\$ 159.6

<sup>1</sup> Includes workers compensation and dependent and retiree health insurance.

<sup>2</sup> Includes executive management, Board of Trustees, Internal Audit, Legal (corporate) and other miscellaneous.

2013 Programs

Page 66





# Capital Spending By Project

January 2001 to October 2012

(\$ in millions)

	Cash Funding	Debt Funding	Total Capital Spending
Active Water Supplies:			
Edwards	\$ 63.9	\$ 155.7	\$ 219.6
Recycled Water	0.6	82.3	82.9
Canyon Lake - GBRA	3.3	10.9	14.2
Regional Carrizo	6.7	29.3	36.0
Brackish Desalination Phase 1	10.3	30.0	40.3
Trinity Aquifer Projects	12.5	-	12.5
Local Carrizo	1.3	13.6	14.9
	\$ 98.6	\$ 321.8	\$ 420.4
Aquifer Storage & Recovery Project	2.4	245.3	247.7
Integration	3.6	10.4	13.9
	\$ 104.6	\$ 577.4	\$ 682.0
Other:			
Land, Buildings & Equipment	\$ 27.4	\$ 4.6	\$ 32.0
Unallocated Project Overhead	12.4	-	12.4
	\$ 39.8	\$ 4.6	\$ 44.4
	\$ 144.4	\$ 582.1	\$ 726.4

2013 Programs

Page 67



# Total Funding By Project Jan. 2001 to Oct. 2012

(\$ in millions)

	Acre Feet Available	Operations & Maintenan	Total Capital Spending	Total Spending by Project
Active Water Supplies:				
Edwards	77,379	\$ 70.7	\$ 219.6	\$ 290.3
Recycled Water	25,000	29.2	82.9	112.1
Canyon Lake - GBRA	10,000	55.9	14.2	70.1
Regional Carrizo	17,200 #	21.1	36.0	57.1
Brackish Desalination Phase 1	12,210 #	1.3	40.3	41.6
Trinity Aquifer Projects	3,500	19.3	12.5	31.7
Local Carrizo	6,400	-	14.9	14.9
	151,689	\$ 197.3	\$ 420.4	\$ 617.7
Aquifer Storage & Recovery Proje	96,025 *	16.8	247.7	264.4
Integration	n/a	8.9	13.9	22.8
	247,714	\$ 223.0	\$ 682.0	\$ 905.0
Inactive Water Supply Projects:				
LCRA - Net of Cash Recovery	-	\$ 25.2	\$ -	\$ 25.2
Lower Guadalupe	-	6.3	-	6.3
Simsboro Aquifer	-	4.4	-	4.4
Recharge Initiative	-	0.8	-	0.8
	-	\$ 36.7	\$ -	\$ 36.7
Other:				
Land, Buildings & Equipment	-	\$ -	\$ 32.0	\$ 32.0
Unallocated Project Overhead	-	-	12.4	12.4
	-	\$ -	\$ 44.4	\$ 44.4
	247,714	\$ 259.8	\$ 726.4	\$ 986.1

\* Water currently stored

# Projected volume once online

2013 Programs

Page 68



## Water Supply Funds Available – October 2012

*\$ in millions*

	Unrestricted		Bond	
	Funds	Impact Fees	Proceeds	Total
Funds Accumulated	\$ 259.5	\$ 72.8	\$ 601.3	\$ 933.6
Capital Spending	(117.3)	(27.1)	(582.1)	(726.4)
Transfers to Other Restricted				
Operating Reserve	(13.7)			(13.7)
Reserve Fund	(13.3)		(4.4)	(17.7)
<b>Total Funds Available</b>	<b>\$ 115.3</b>	<b>\$ 45.7</b>	<b>\$ 14.8</b>	<b>\$ 175.8</b>
Designations:				
2012 & Prior CIP program	69.3	45.6	14.8	129.7
2013 CIP Program	8.8	6.0		14.8
Future Reserve Fund deposits & other	2.5			2.5
<b>Total Designated</b>	<b>80.5</b>	<b>51.6</b>	<b>14.8</b>	<b>146.9</b>
Undesignated/Unrestricted Funds	34.8	(5.9)	-	28.9
<b>Funds Available for Spending</b>	<b>\$ 115.3</b>	<b>\$ 45.7</b>	<b>\$ 14.8</b>	<b>\$ 175.8</b>

2013 Programs

Page 69



## Presentation Overview

***Doug Evanson, Senior Vice President & CFO***

Financial and Rate Impacts

2013 Programs

Page 70



# SAWS' 2013 Proposed Budget

Assumes Rate Adjustment Effective March 1, 2013

	2012 Budget	2013 Proposed
\$ in Millions		
<b>Sources of Funds</b>		
Revenues	\$411.4	\$438.7
Revenue Adjustment	26.1	33.5
Capital Recovery Fees	22.0	22.0
<b>TOTAL</b>	<b>\$459.5</b>	<b>\$494.2</b>
<b>Uses of Funds</b>		
Operations and Maintenance	230.3	245.6
Debt Service & Expenses	156.1	167.7
Transfer to COSA	11.0	11.9
Available for R & R - Restricted	22.0	22.1
Available for R & R and Other	40.1	46.9
<b>TOTAL</b>	<b>\$459.5</b>	<b>\$494.2</b>

2013 Programs

Page 71



# O&M Proposed Budget

	2010 Adopted	2011 Adopted	2012 Amended	2013 Proposed
\$ in millions				
Salaries and Fringe Benefits	\$115.3	\$120.1	\$125.8	\$129.6
Contractual Services	89.4	93.2	105.0	117.5
Materials and Supplies	22.3	21.6	21.4	21.5
Other Charges	10.4	11.2	12.5	11.6
Capitalized Cost	(\$33.7)	(\$34.8)	(\$34.2)	(\$34.6)
<b>Operating Expense</b>	<b>\$203.7</b>	<b>\$211.4</b>	<b>\$230.3</b>	<b>\$245.6</b>



2013 Programs

Page 72



# Sewer Spill Reduction Program

\$13.6 M is 89% of O&M Increase

- Cleaning
- Televising and Assessment
- Capacity Assessment
- Program Manager
- Legal



2013 Programs

# Doing More With Less

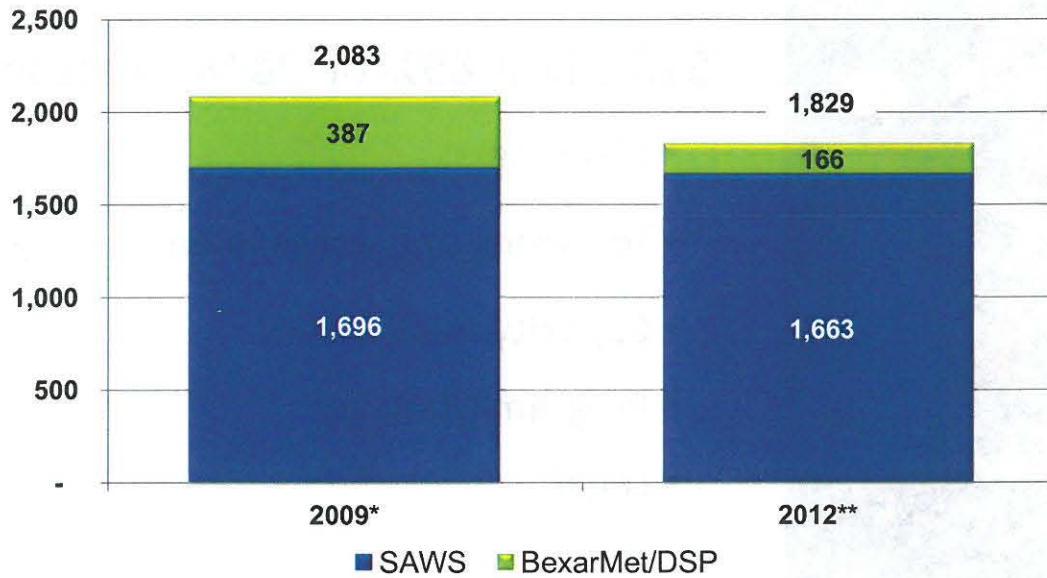
104,394 More Customer Connections – 10 Less Employees

	2005	2013	Increase/(Decrease)
Budgeted Employees	1,807	1,797	(10)
Customer Connections	680,822	785,216	104,394

2013 Programs

# Combined SAWS/DSP Workforce

12.2% Less Combined Employees



\* BexarMet position count as of 4/30/2009, SAWS position count as of 12/31/2009  
 \*\* Count as of November 2, 2012



# Capital Outlay Proposed Budget

\$ in Millions	2010 Budget	2011 Budget	2012 Amended	2013 Proposed
Automobiles and Trucks	\$4.2	\$7.8	\$7.1	\$6.2
Computer Equipment & Software	2.2	2.0	2.2	2.2
Machinery and Equipment	1.3	0.1	0.3	0.2
Miscellaneous Equipment & Other	1.7	1.2	2.2	1.9
<b>Total Capital Outlay</b>	<b>\$9.4</b>	<b>\$11.1</b>	<b>\$11.8</b>	<b>\$10.5</b>



# Minimize Borrowing Costs

## Refinancings Completed in Last 20 Months to Save \$96 M

Series	Par Amount Refunded	Refunded Series	Par Amount Issued	Cash Savings
Series 2011	\$ 50,235,000	Series 2001	\$ 46,555,000	\$ 5,778,843
Series 2011A	115,080,000	Series 2002 & 2002-A	106,465,000	15,745,238
Series 2012	265,885,000	Series 2002	225,255,000	71,002,169
Jr. Lien Series 2012 (No Reserve Fund)	39,005,000	Jr. Series 2001, 2001-A, 2002, & 2002-A	31,890,000	3,459,215
	<u>\$ 470,205,000</u>		<u>\$ 410,165,000</u>	<u>\$ 95,985,466</u>

New Series	2013 Debt Service	Refunded Series	Prior 2013 Debt Service	2013 Cash Savings
Series 2011	\$ 4,064,650	Series 2001	\$ 4,447,000	\$ 382,350
Series 2011A	9,424,500	Series 2002 & 2002-A	10,200,594	776,094
Series 2012	13,130,500	Series 2002	17,432,631	4,302,131
Jr. Lien Series 2012 (No Reserve Fund)	4,078,800	Jr. Series 2001, 2001-A, 2002, & 2002-A	4,486,511	407,711
	<u>\$ 30,698,450</u>		<u>\$ 36,566,736</u>	<u>\$ 5,868,286</u>

2013 Programs

Page 77



# 2013 Bill Projection

## Average Monthly Residential Bill

Service	2012 Budget	2013 Proposed	\$ Increase	% Rate Increase	% Bill Increase
Water Supply	\$9.05	\$9.82	\$0.77	8.4%	1.7%
Water Delivery	15.29	15.29	0.00	0.0%	0.0%
Wastewater	22.11	26.57	4.46	20.2%	9.6%
<b>Total</b>	<b>\$46.45</b>	<b>\$51.68</b>	<b>\$5.23</b>		<b>11.3%</b>
Pass-through Fees	3.27	2.97	- 0.30	(9.2%)	-1.4%
<b>Total Bill</b>	<b>\$49.72</b>	<b>\$54.65</b>	<b>\$4.93</b>		<b>9.9%</b>

Based on 7,788 gallons water/ 6,178 gallons sewer usage. Includes EAA and TCEQ fees.

2013 Programs

Page 78



# SAWS Affordability Program

Increase funding by 20% to \$2.1 million

Poverty Level	Bill Discount (\$)	Bill Discount (%)
50%	\$ 12.97	24%
75%	\$ 9.07	17%
100%	\$ 6.49	12%
125%	\$ 5.17	9%

Based on 7,788 gallons water/ 6,178 gallons sewer usage



2013 Programs

Page 79



# SAWS Residential Bill

Current 5-Year Projection

Residential Bill (7,788 gallons water / 6,178 wastewater, ICL, Standard)						
	Adopted	Proposed	Projected	Projected	Projected	Projected
Monthly Residential Bill	2012	2013	2014	2015	2016	2017
Water Supply	\$9.05	\$9.82	\$12.56	\$13.99	\$14.75	\$17.29
Water Delivery	\$15.29	\$15.29	\$16.30	\$17.33	\$18.23	\$18.83
Wastewater	\$22.11	\$26.57	\$30.58	\$33.64	\$36.36	\$38.03
<b>Total</b>	<b>\$ 46.45</b>	<b>\$ 51.68</b>	<b>\$ 59.44</b>	<b>\$ 64.96</b>	<b>\$ 69.34</b>	<b>\$ 74.15</b>
Increase		\$ 5.23	\$ 7.76	\$ 5.52	\$ 4.38	\$ 4.81
Increase %		11.3%	15.0%	9.3%	6.7%	6.9%

EAA Fee	\$3.04	\$2.74	\$2.74	\$2.74	\$2.74	\$2.74
State-Imposed TCEQ Fee	\$0.23	\$0.23	\$0.23	\$0.23	\$0.23	\$0.23
<b>Total With EAA / TCEQ Fees</b>	<b>\$ 49.72</b>	<b>\$ 54.65</b>	<b>\$ 62.41</b>	<b>\$ 67.93</b>	<b>\$ 72.31</b>	<b>\$ 77.12</b>
<b>Increase % with EAA / TCEQ Fees</b>		<b>9.9%</b>	<b>14.2%</b>	<b>8.8%</b>	<b>6.4%</b>	<b>6.7%</b>

Rate Projections from the 2013 Budget Process, excludes COSA Stormwater

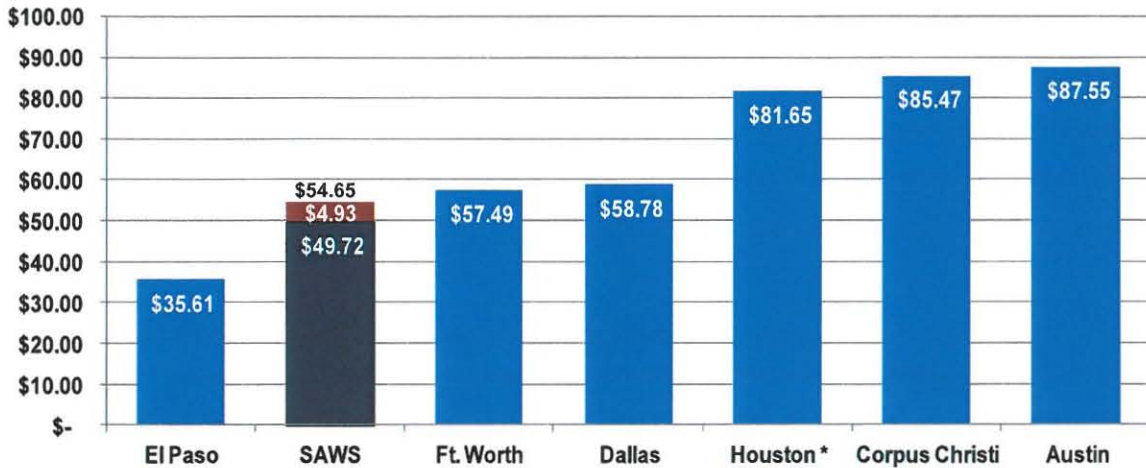
2013 Programs

Page 80



# Texas Residential Bill Comparison

## Average Residential Water and Wastewater Bill – November 2012



\* Houston wastewater charges based solely on water usage  
 Monthly charges as of November 2012, Based on 7,788 Gal. Water (Standard)/6,178 Gal. Wastewater.  
 Includes EAA and TCEQ Fees.

2013 Programs

Page 81



## 2013 Sewer Spill Reduction Program, Capital Improvements, and Water Supply

**Robert R. Puente**

President/CEO

**Steve Clouse**

Senior Vice President & COO

**Kelley Neumann**

Senior Vice President

**Doug Evanson**

Senior Vice President/CFO

December 6, 2012

San Antonio City Council







# **EXHIBIT “G”**

# 2013 Rate Request

**Berto Guerra**

Chairman

**Robert R. Puente**

President/CEO

February 7, 2013

San Antonio City Council



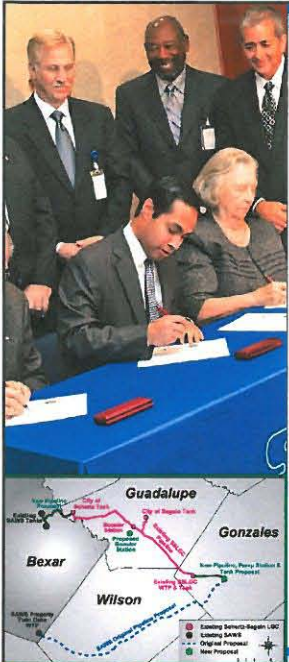
## Overview

- SAWS is a leading water utility in the nation
- Addressing our challenges
  - Reducing sewer spills
  - Maintaining Infrastructure needs
  - Developing water supplies
- Alignment with **SA2020**
- Commitment to efficiency and affordability

February 7, 2013



## Successful Water Management



2013 Rate Request

- Increased supplies by 39% since 2004
  - Including ASR, increased by 79%
- Aquifer Storage & Recovery
  - Storing water even during drought
  - Cornerstone of regional EARIP solution
- Historic Regional Water Partnership with Schertz-Seguin
  - Saving ratepayers over ~\$88 million
- International Model of Water Conservation
- Rescuing BexarMet ratepayers from inadequate water supplies

## Successful Innovation

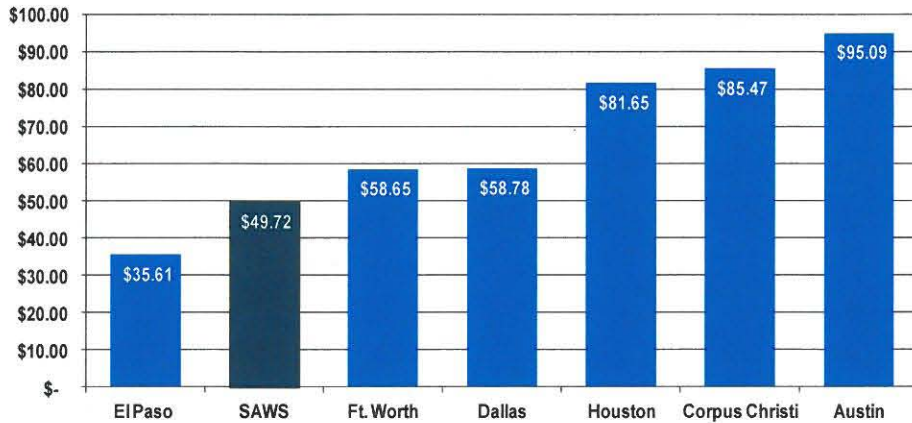


2013 Rate Request

- Award-winning Environmental Trifecta
  - Nation's Largest Direct Recycle System
  - Public/Private Partnership for Gas to Energy
  - Compost diverted from landfills
- Largest Solar Farm in Texas built next to largest energy meter in San Antonio
  - CPSE/Sun Edison/SAWS Partnership
  - Producing more power than the combined use of ASR, Dos Rios and the Desal Plant
- In-Pipe Hydroelectric Power System
- Brackish Groundwater Desalination

# Nearly the Lowest Bill in Texas

## Average Texas Water and Wastewater Bills – February 2013



Monthly charges as of February 2013, Based on 7,788 Gal. Water (Standard)/6,178 Gal. Wastewater, includes EAA and TCEQ Fees.

# SAWS System Challenges

## Water Supply and Infrastructure



- Procurement of diverse water supplies
  - Regulatory Constraints and Higher Costs
  - Integration
- Maintenance and replacement of aging or degraded infrastructure
- Reduction of Sanitary Sewer Overflows (SSOs)
  - Compliance with the Clean Water Act

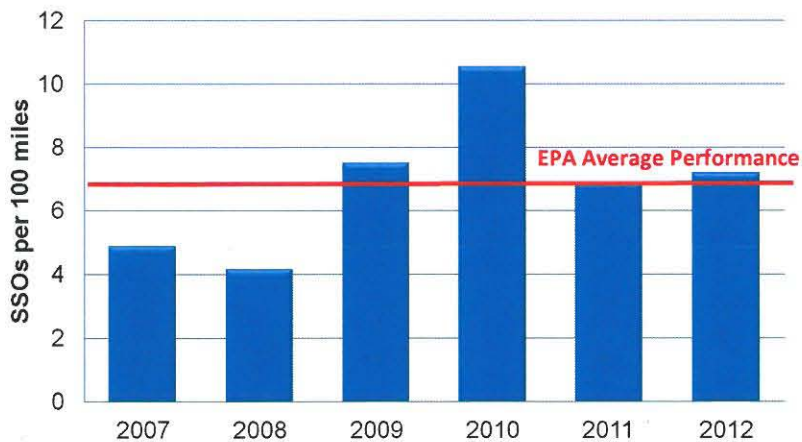


## Sewer Spill Reduction Program

### A Comprehensive Operating Approach

- Clean the right pipe at the right time
  - Grease and Debris are the major cause
- Televising and Inspecting after cleaning
- Repair or Rehabilitate infrastructure
- Construct additional capacity

## Annual SSOs per 100 miles



# Sewer Spill Reduction Program

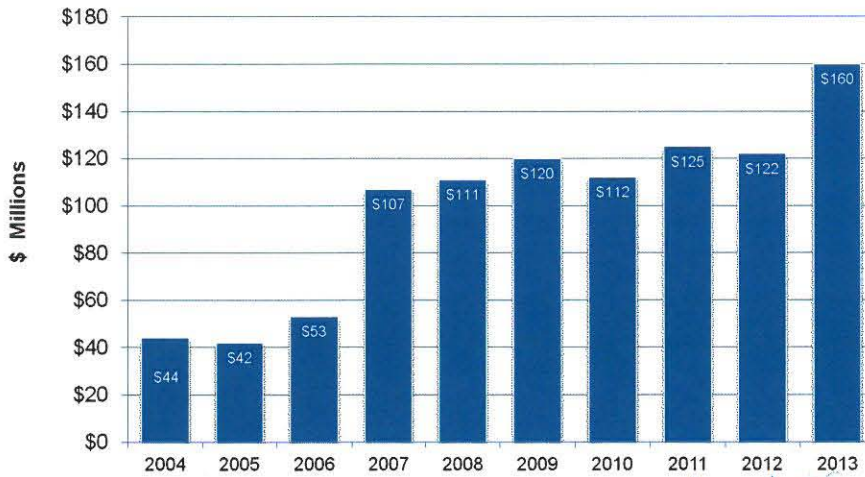
## Sustained & Expanded Effort



\*2013 budgeted amounts  
2007 and 2008 breakout between Line Cleaning and CCTV unavailable

# Wastewater Capital (CIP) Budgets

## Significant Increase in Investment



# Water Supply

## Brackish Desalination Plant



- Nation's largest inland Brackish Groundwater Desalination Plant under construction
- \$98 million capital investment in 2013
- First Phase on-line in 2016
- 30,525 ac-ft by 2026

# 2013 Rate Adjustment

## Average Monthly Residential Bill

Service	2012 Budget	2013 Proposed	\$ Increase	% Rate Increase	% Bill Increase
Water Supply	9.06	9.29	0.23	2.5%	0.5%
Water Delivery	15.29	15.29	0.00	0.0%	0.0%
Wastewater	22.10	25.75	3.65	16.5%	7.9%
<b>Total</b>	<b>\$46.45</b>	<b>\$50.33</b>	<b>\$3.88</b>		<b>8.4%</b>
Pass-through Fees	3.27	2.89	- 0.38	- 11.6%	- 1.4%
<b>Total Bill</b>	<b>\$49.72</b>	<b>\$53.22</b>	<b>\$3.50</b>		<b>7.0%</b>

Based on 7,788 gallons water/ 6,178 gallons sewer usage. Includes EAA and TCEQ fees.



# 2013 Rate Adjustment

## Monthly Residential Bill

### Water & Water Supply (Standard) Includes EAA and TCEQ Fees

Meter (Gallons)	Water CURRENT BILL	TOTAL PROPOSED BILL	Difference	Pctg. Difference
5,000	\$19.27	\$19.16	-\$0.11	-0.6%
7,788	\$27.56	\$27.41	-\$0.15	-0.5%
20,000	\$87.78	\$87.74	-\$0.04	0.0%
36,657	\$219.13	\$219.87	\$0.74	0.3%

### Wastewater Includes TCEQ Fees

Wastewater (Gallons)	TOTAL CURRENT BILL	TOTAL PROPOSED BILL	Difference	Pctg. Difference
4,102	\$16.73	\$19.48	\$2.75	16.4%
6,178	\$22.16	\$25.81	\$3.65	16.5%
12,850	\$39.61	\$46.14	\$6.53	16.5%
15,000	\$45.23	\$52.69	\$7.46	16.5%

# Monthly Residential Bill

## Five Year Projection

### Residential Bill (7,788 gallons water / 6,178 wastewater, ICL Standard)

	Adopted 2012	Budget 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017
<b>Monthly Residential Bill</b>						
Water Supply	\$9.06	\$ 9.29	\$11.72	\$13.09	\$13.78	\$16.27
Water Delivery	\$15.29	\$ 15.29	\$16.00	\$17.02	\$17.82	\$18.32
Wastewater	\$22.10	\$ 25.75	\$29.38	\$32.14	\$34.36	\$35.46
<b>Total</b>	<b>\$46.45</b>	<b>\$ 50.33</b>	<b>\$ 57.10</b>	<b>\$ 62.25</b>	<b>\$ 65.96</b>	<b>\$ 70.05</b>
<b>Increase</b>		<b>\$ 3.88</b>	<b>\$ 6.77</b>	<b>\$ 5.15</b>	<b>\$ 3.71</b>	<b>\$ 4.09</b>
<b>Increase %</b>		<b>8.4%</b>	<b>13.5%</b>	<b>9.0%</b>	<b>6.0%</b>	<b>6.2%</b>

EAA Fee	\$3.04	\$2.67	\$2.67	\$2.67	\$2.67	\$2.67
State-Imposed TCEQ Fee	\$0.23	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22
<b>Total With EAA / TCEQ Fees</b>	<b>\$49.72</b>	<b>\$ 53.22</b>	<b>\$ 59.99</b>	<b>\$ 65.14</b>	<b>\$ 68.85</b>	<b>\$ 72.94</b>
<b>Increase % with EAA / TCEQ Fees</b>		<b>7.0%</b>	<b>12.7%</b>	<b>8.6%</b>	<b>5.7%</b>	<b>5.9%</b>

Rate Projections from the 2013 Budget Process, excludes COSA Stormwater, assumes no change to pass-through fees



## Affordability Program

Increase funding by 20% to \$2.1 million

Poverty Level	2012 Bill Discount	2013 Bill Discount	2013 Bill Discount
50%	\$11.80	\$ 12.97	24%
75%	\$8.25	\$ 9.07	17%
100%	\$5.90	\$ 6.49	12%
125%	\$4.70	\$ 5.17	9%

Based on 7,788 gallons water/ 6,178 gallons sewer usage



## Affordability Program

New Outreach Targets

- Civic and Non-Profit Agencies
  - COPS/Metro Alliance Resource Fairs
  - Christian Senior Services/Meals on Wheels
  - San Antonio Food Bank
  - Bexar Area Agency on Aging/Alamo Service Connection
  - Home Health Care Providers
  - City/County Joint Commission on Elderly Affairs
- Targeted Block Walks
  - Door-to-Door Outreach
- Local School Districts
  - Literature in Welcome Packets and on website

## Commitment to the Ratepayer

- Reduced the rate request to 8.4%
  - Worked in coordination with COSA Public Utilities Office
- Over 80 community outreach meetings
  - Endorsements from Chambers of Commerce and Civic Groups
- Expanded affordability assistance



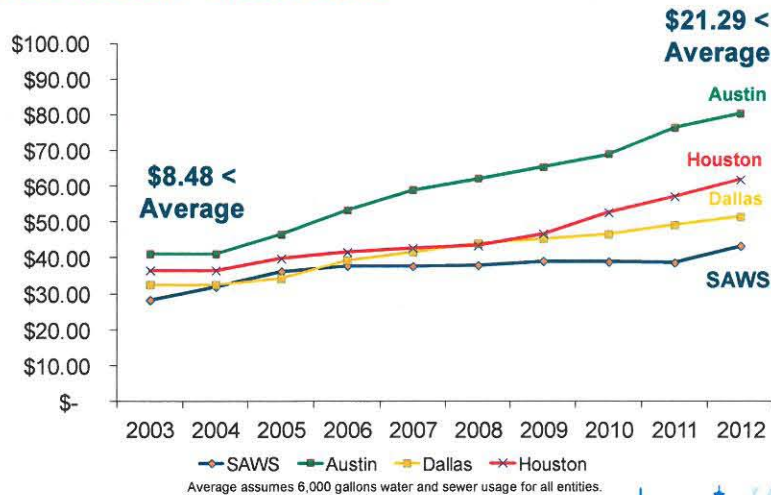
## Successful Efficiency

- 67% more customers, 0% more water in last 25 years
- 15% (104,000) more connections, 0% more positions since 2005
  - Not even including BexarMet
- Seamless transition of BexarMet system
  - Resolved water supply and operational issues
  - Improved credit outlook
- \$96 million savings from Bond Refinancing
  - Reaffirmed Highest-Ever Credit Rating
- Among the Lowest Bills in Texas



## Maintaining a Bill far Below Average

### Residential Bill – 6,000 Gallons



## Additional Efficiency Measures Being Taken

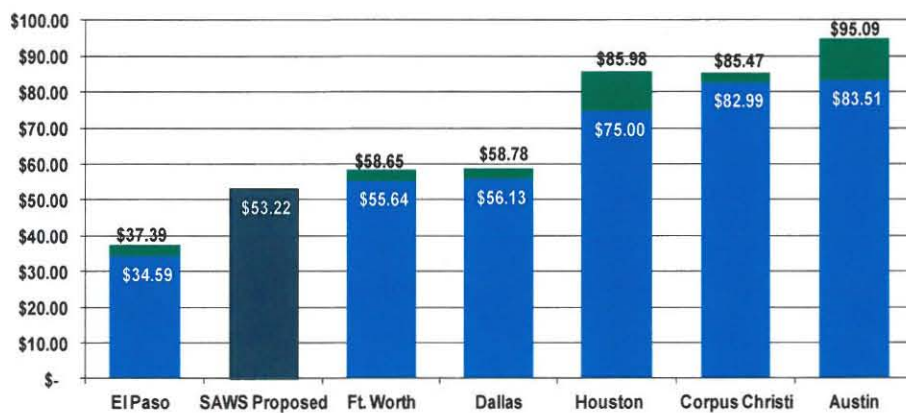
- Benchmark Performance and Staffing Levels
- Continue Organizational Efficiencies and Innovation
  - Create a Formalized Efficiency Function
  - Review Individual Departments
  - Optimize Departmental Productivity
- Continue Comprehensive Review of Benefit and Pension Plans
  - Additional Medical Cost Sharing and Plan Design Review (Active and Retiree)

## Summary

- Reduce Sewer Spills
- Continue investing in critical infrastructure needs for our Quality of Life and Economic Development
- Continue developing new Water Supplies like Brackish Desalination
- Remain efficient, as reflected through one of the lowest bills in the State

## Nearly the Lowest Bill in Texas

**\$5.58 Average Texas Increase Since Last SAWS Adjustment\***



\*Excludes SAWS and includes already approved rate adjustments for El Paso and Houston to be implemented March 1 & April 1  
Based on 7,788 Gal. Water (Standard)/6,178 Gal. Wastewater. Includes EAA and TCEQ Fees for SAWS

# 2013 Rate Request

**Berto Guerra**

Chairman

**Robert R. Puente**

President/CEO

February 7, 2013

San Antonio City Council



February 7, 2013

## Rate Request Reduced to 8.4%

### Reduced Expenditures

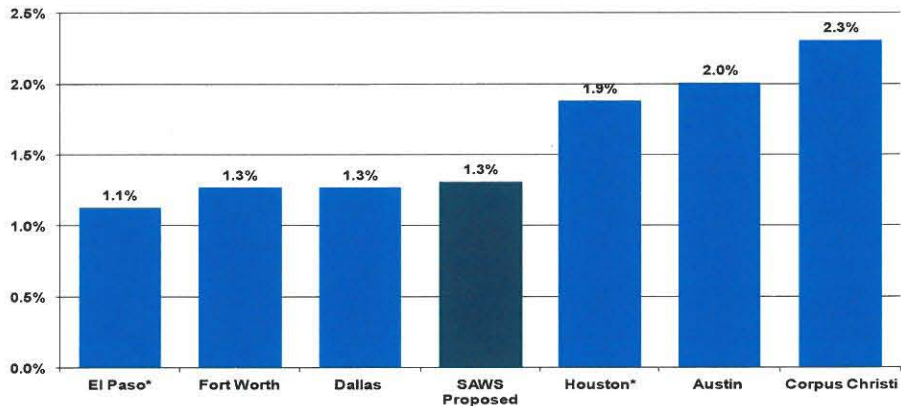
- Utilize Low Variable Rate Debt \$ 3,200 K
- Deferred Fleet Purchases 2,000 K
- Claims Projections 825 K
- Anticipated Bond Refinancing 374 K
- Advertising 250 K
- Legal 200 K
- Worker's Comp Medical 200 K
- Communications, Sponsorships,  
Travel, Conferences & Other Misc. 375 K

Page 24

2013 Rate Request



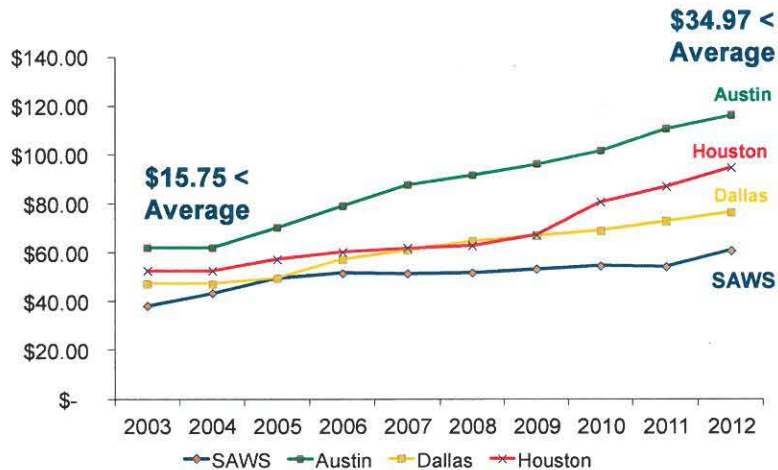
## Texas Cities: Ratio of Monthly Residential Charges to Median Household Income (2011 U.S. Census Data)



\* Includes already approved rate adjustments for El Paso and Houston to be implemented March 1 and April 1, respectively  
Residential Monthly Charges Based on Billing for 7,788 Gal. Water (Standard)/6,178 Gal. Wastewater

## Maintaining a Bill far Below Average

Residential Bill – 9,000 Gallons



Average assumes 9,000 gallons water and sewer usage for all entities.

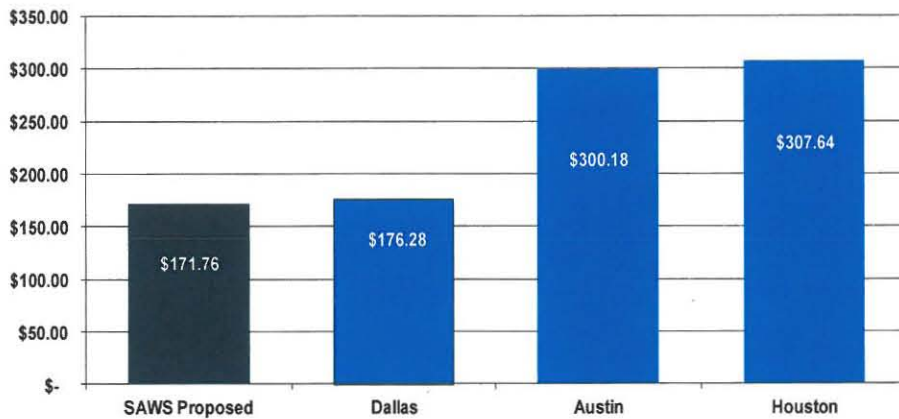
### Texas Cities: Ratio of Monthly Residential Charges to Median Household Income (2011 U.S. Census Data)

City	Annual Median Household Income (2011)	Average Monthly Water & Sewer Charges	Ratio Of Monthly Charges to Median Household Income
El Paso*	\$39,573	\$37.39	1.1%
Ft. Worth	\$55,546	\$58.65	1.3%
Dallas	\$55,546	\$58.78	1.3%
SAWS (Proposed)	\$48,699	\$53.22	1.3%
Houston*	\$54,901	\$85.98	1.9%
Austin	\$56,783	\$95.09	2.0%
Corpus Christi	\$44,342	\$85.47	2.3%

\* Includes already approved rate adjustments for El Paso and Houston to be implemented March 1 & April 1, respectively  
 Residential Monthly Charges Based on Billing for 7,788 Gal. Water (Standard)/6,178 Gal. Wastewater



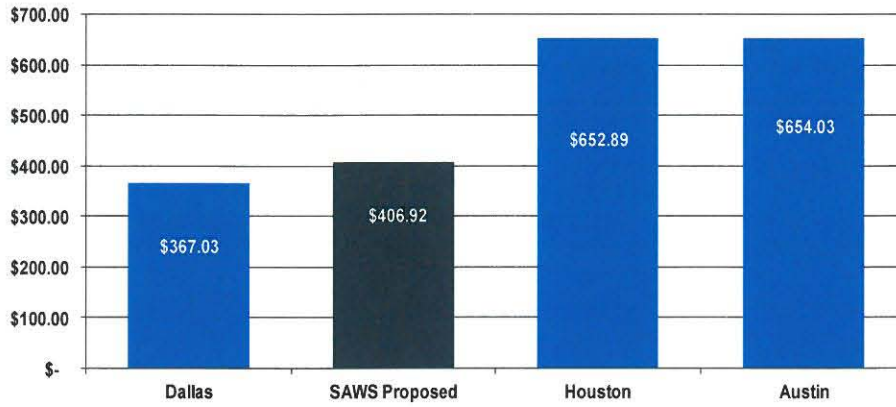
### Texas Residential Water Bill Comparison Summer Usage – 25,000 Gallons Water & 10,000 Gallons Sewer





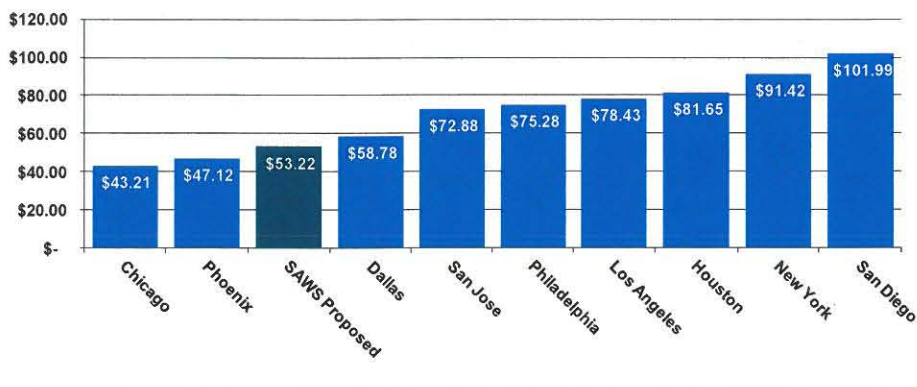
## Texas Residential Water Bill Comparison

Summer Usage – 50,000 Gallons Water & 15,000 Gallons Sewer



## Top 10 U.S. Cities Residential Bill Comparison

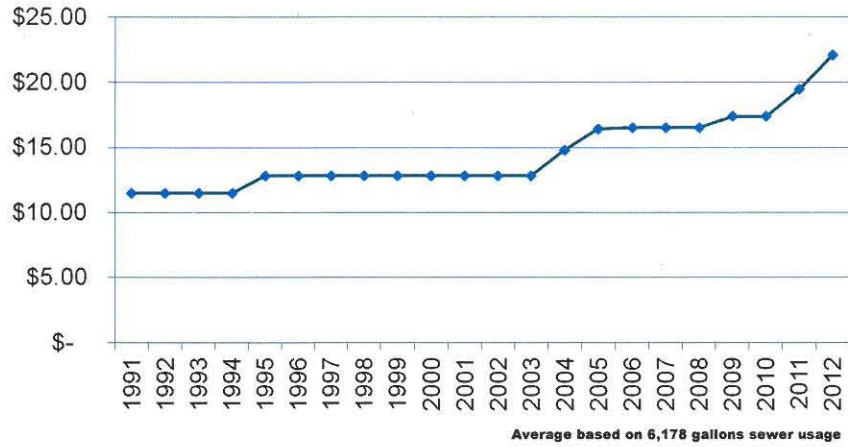
Average Residential Water and Wastewater Bill – February 2013



Monthly charges as of February 2013. Based on 7,788 Gal. Water and winter average for sewer where applicable. Includes EAA and TCEQ Fees.

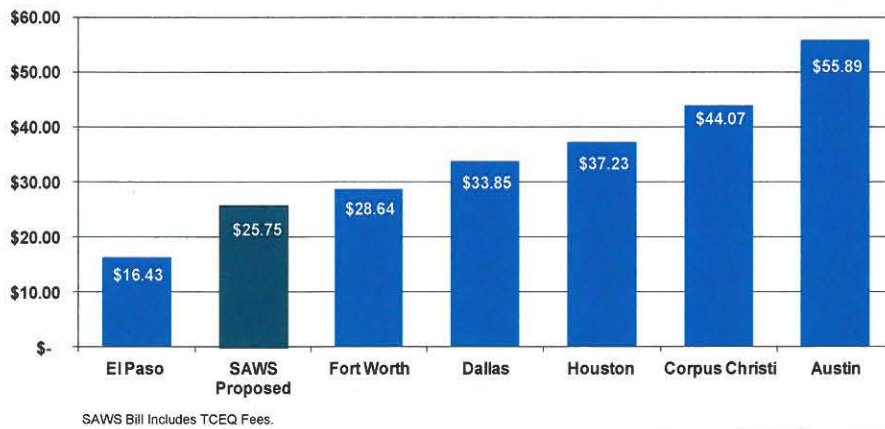
## Minimal Investment in Sewer System

### Average Residential Wastewater Bill 1991 – 2012



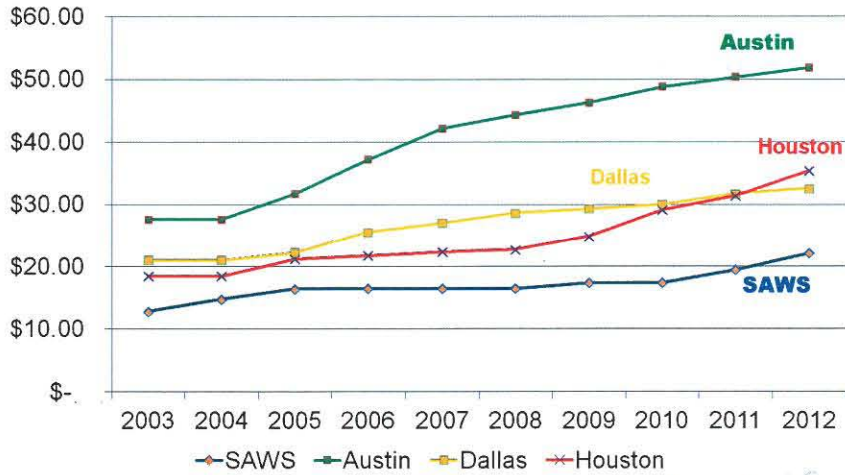
## Texas Residential Wastewater Bill Comparison

### Average Residential Wastewater Bill – February 2013



## Average Residential Wastewater Bill

**\$9.50 Less Than Average in 2003 vs. \$17.79 Less Than Average in 2012**



## DSP Residential Bill Projection

**Five Year Projection**

Residential Bill (7,788 gallons water / 6,178 wastewater, ICL, Standard)

	Adopted 2012	Proposed 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017
<b>Monthly Residential Bill</b>						
Water Supply	\$14.33	\$14.33	\$14.33	\$14.33	\$14.33	\$14.33
Water Service	\$16.37	\$16.37	\$16.37	\$16.37	\$16.37	\$16.37
Wastewater	\$22.11	\$25.76	\$29.38	\$32.14	\$34.36	\$35.46
<b>Total</b>	<b>\$52.81</b>	<b>\$56.46</b>	<b>\$60.08</b>	<b>\$62.84</b>	<b>\$65.06</b>	<b>\$66.16</b>
<b>Increase</b>		\$ 3.65	\$ 3.62	\$ 2.76	\$ 2.22	\$ 1.10
<b>Increase %</b>		6.9%	6.4%	4.6%	3.5%	1.7%

EAA Fee	\$2.41	\$2.12	\$2.12	\$2.12	\$2.12	\$2.12
State-Imposed TCEQ Fee	\$0.23	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22
<b>Total With EAA / TCEQ Fees</b>	<b>\$55.45</b>	<b>\$58.80</b>	<b>\$62.42</b>	<b>\$65.18</b>	<b>\$67.40</b>	<b>\$68.50</b>
<b>Increase % with EAA / TCEQ Fees</b>		6.0%	6.2%	4.4%	3.4%	1.6%

Rate Projections from the 2013 Budget Process, excludes COSA Stormwater

## Budget Impacts of DSP Integration Efforts

### Both SAWS and DSP Ratepayers Benefit

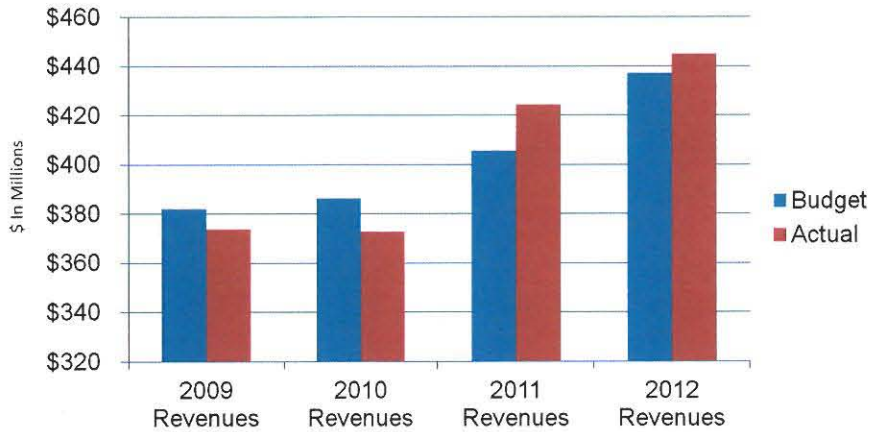
BexarMet/District Special Project	4/30/2012	12/31/2012	12/31/2013
Budgeted Operating Expense Before Depreciation	\$ 54,616,761	\$ 50,369,453	\$ 42,365,063
Budgeted O&M Expense Allocation From SAWS	-	-	5,262,202
Total Budgeted O&M	\$ 54,616,761	\$ 50,369,453	\$ 47,627,265

SAWS	12/31/2012	12/31/2013
Budgeted Operating Expense Before Depreciation & SSO	\$ 230,335,745	\$ 235,234,523
Budgeted O&M Expense Allocation to DSP	-	(5,262,202)
Budgeted O&M Before Accelerated SSO Reduction Initiative	\$ 230,335,745	\$ 229,972,321
Accelerated SSO Reduction Initiative	-	13,964,666
Total Budgeted O&M	\$ 230,335,745	\$ 243,936,987

## REVENUE BUDGETS AND R&R FUND

# Budget & Actual Revenues

Cumulative Revenues Within 0.23% of Budget During Last 4 Years



Revenues include Operating and Non-Operating

# Revenue Forecast History

Forecast Accuracy More than 99.7% Over Last Four Years

Operating & Non-Operating Revenues	Chilled Water				TOTAL
	Wastewater	Water Delivery	Water Supply	& Steam	
2009 Budget	140,135,468	107,680,367	120,754,074	13,554,815	382,124,724
2009 Actual	136,753,791	107,109,186	116,251,532	13,448,685	373,563,194
Variance	(3,381,677)	(571,181)	(4,502,542)	(106,130)	(8,561,530)
2010 Budget	140,639,248	112,050,296	120,538,651	13,011,294	386,239,489
2010 Actual	133,881,460	107,631,876	118,605,719	12,402,274	372,521,329
Variance	(6,757,788)	(4,418,420)	(1,932,932)	(609,020)	(13,718,160)
2011 Budget	151,784,462	117,638,790	123,892,947	12,181,651	405,497,850
2011 Actual	153,041,045	126,808,385	132,370,732	11,828,963	424,049,125
Variance	1,256,583	9,169,595	8,477,785	(352,688)	18,551,275
2012 Budget	167,863,181	122,070,143	135,412,390	11,836,607	437,182,321
2012 Actual	170,757,856	122,616,350	138,775,956	12,528,075	444,678,237
Variance	2,894,675	546,207	3,363,566	691,468	7,495,916
2009 - 2012 Budget	600,422,359	459,439,596	500,598,062	50,584,367	1,611,044,384
2009 - 2012 Actual	594,434,152	464,165,797	506,003,939	50,207,997	1,614,811,885
Variance	(5,988,207)	4,726,201	5,405,877	(376,370)	3,767,501
Variance Percentage	-1.00%	1.03%	1.08%	-0.74%	0.23%

## 2011 Change in R&R Funds

	<i>\$ in thousands</i>		
	Budget	Actual	Change in R&R
R&R Funds at 1/1/2011	\$ 185,934	\$ 185,934	\$ -
Operating Revenue	400,304	417,869	17,565
Operating Expenses	(211,363)	(193,255)	18,108 (b)
Debt Requirements & Other non-operating items	(150,855)	(144,249)	6,606
Funds Added by Operations	\$ 38,086	\$ 80,365	\$ 42,279
Capital Spending	(56,443)	(40,683)	15,760
Transfer to Debt Service Reserve Fund (a)	-	(3,354)	(3,354)
Proceeds from Asset Sales	-	1,175	1,175
Other changes, net	-	8,515	8,515
R&R Funds at 12/31/2011	\$ 167,577	\$ 231,952	\$ 64,375

(a) - Transfers required as a result of downgrade of bond insurers during 2008 financial crisis

(b) - In 2011, SAWS operating expenses were reduced by the settlement with LCRA. The recorded value of this settlement in 2011 was \$25.4 million.

## 2012 Change in R&R Funds

	<i>\$ in thousands</i>		
	Budget	Actual	Change in R&R
R&R Funds at 1/1/2012	\$ 231,952	\$ 231,952	\$ -
Operating Revenue	432,168	438,203	6,035
Operating Expenses	(230,336)	(233,917)	(3,581)
Debt Requirements & Other non-operating items	(163,655)	(149,387)	14,268
Funds Added by Operations	\$ 38,177	\$ 54,899	\$ 16,722
Capital Spending	(53,868)	(51,299)	2,569
Transfer to Debt Service Reserve Fund (a)	-	(3,674)	(3,674)
Proceeds from Asset Sales	-	1,370	1,370
Other changes, net	-	(1,626)	(1,626)
R&R Funds at 12/31/2012	\$ 216,261	\$ 231,622	\$ 15,361

(a) - Transfers required as a result of downgrade of bond insurers during 2008 financial crisis

## Renewal & Replacement Fund

	12/31/2012 TOTAL	CURRENT/ OTHER	CIP FUNDING		Carryover
			2012 & Prior	2013	
<b>RESTRICTED FUNDS</b>					
Customer Deposits	\$ 9,265	\$ 9,265			
Operating Reserve	38,389	38,389			
	47,654	47,654	-	-	-
<b>DESIGNATED FUNDS</b>					
Future Reserve Deposits	9,365	9,365			
Interest Mitigation <sup>1</sup>	8,055				8,055
Conservation/WQEE/PGA	1,037	1,037			
	18,457	10,402	-	-	8,055
<b>UNRESTRICTED FUNDS</b>					
2012 Capital Outlay	-	-			
CIP - Cash Funding	165,511	-	76,288	27,829	61,394
	165,511	-	76,288	27,829	61,394
	<b>\$ 231,622</b>	<b>\$ 58,056</b>	<b>\$ 76,288</b>	<b>\$ 27,829</b>	<b>\$ 69,449</b>

<sup>1</sup>Interest Mitigation represents the accumulation of favorable variances in debt service. Funds will be used in future periods (2014 and beyond) to help minimize future debt service (ie. refund debt or fund capital expenditures).

## Key Financial Ratios – Historical

SAN ANTONIO WATER SYSTEM (excludes DSP)	Unaudited 12/31/2012	12/31/2011	12/31/2010	Fitch AA Median
Sr. Lien Debt Coverage Ratio <sup>1</sup>	2.11 X	2.28 X	1.60 X	2.4 X
Total Bonded Debt Coverage Ratio <sup>1</sup>	1.60 X	1.74 X	1.22 X	1.9 X
Days Cash on Hand <sup>2</sup>	342 Days	362 Days	286 Days	418 Days

<sup>1</sup>Debt service coverage is calculated net of the Build America Bonds ("BABs") direct subsidy.

<sup>2</sup>Operating Reserve is included in Cash & Investments.

## Key Financial Ratios – Budgeted

SAN ANTONIO WATER SYSTEM (excludes DSP)	Proposed Budget 12/31/2013	Proposed Budget 12/31/2013 <sup>3</sup>	Fitch AA Median
Sr. Lien Debt Coverage Ratio <sup>1</sup>	1.77 X	1.58 X	2.4 X
Total Bonded Debt Coverage Ratio <sup>1</sup>	1.28 X	1.14 X	1.9 X
Days Cash on Hand <sup>2</sup>	276 Days	242 Days	418 Days

<sup>1</sup> Debt service coverage is calculated net of the Build America Bonds ("BABs") direct subsidy.

<sup>2</sup> Operating Reserve is included in Cash & Investments.

<sup>3</sup> Assumes adoption of the 2013 budget with no rate adjustment.

## OPERATING AND CAPITAL BUDGET DETAIL

REDUCTIONS TO 8.4%



## SAWS' 2013 Proposed Amended Budget

Assumes Rate Adjustment Effective March 1, 2013

\$ in Millions	2011 Actual	2012 Budget	2012 Projection	2013 Proposed
<b>Sources of Funds</b>				
Operating Revenues	\$417.9	\$406.1	\$433.9	\$436.0
Non-Operating Revenues & Other	6.2	5.3	11.9	6.4
Revenue Requirement		26.1		22.6
Capital Recovery Fees	23.2	22.0	32.3	36.0
<b>TOTAL</b>	<b>\$447.3</b>	<b>\$459.5</b>	<b>\$478.1</b>	<b>\$501.0</b>
<b>Uses of Funds</b>				
Operations and Maintenance	\$193.3	\$230.3	\$228.6	\$243.9
Debt Service & Expenses	138.2	156.1	142.5	164.1
Transfer to COSA	10.9	11.0	11.1	11.7
Available for R & R - Restricted	23.4	22.1	32.5	36.1
Available for R & R and Other	81.5	40.0	63.4	45.2
<b>TOTAL</b>	<b>\$447.3</b>	<b>\$459.5</b>	<b>\$478.1</b>	<b>\$501.0</b>

## Sewer Spill Reduction Program

\$13.6 M is 89% of O&M Increase

- Cleaning
- Televising and Assessment
- Capacity Assessment
- Program Manager
- Legal



# Capital Budget

	\$ in millions
Wastewater	\$159.8
Water Delivery	65.2
Water Supply	118.9
Heating & Cooling	6.2
<b>TOTAL</b>	<b>\$350.2</b>

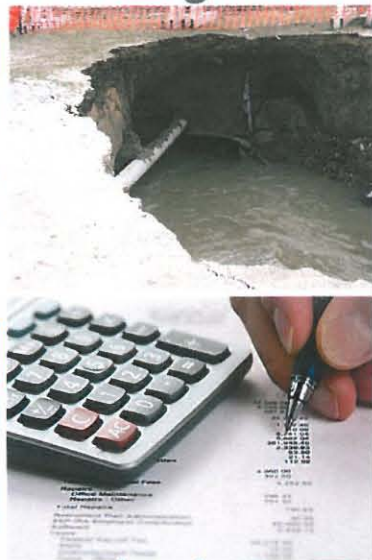


# Capital Budget Funding & Financing

Source of Funding	\$ in Millions
Impact Fees	\$14.3
System Revenues/R&R	28.5
Revenue Bond Proceeds	307.4
<b>TOTAL</b>	<b>\$350.2</b>

## Financing Plan

Amount	Interest Rate	Term	Annual Payment
\$277.3	4.00%	30 Years	\$15.9
\$53.0	3.00%	20 Years	\$3.2
<b>\$330.3</b>			<b>\$19.1</b>



## Rate Request Reduced to 8.4%

### Overview of Adjustments

• Revised Debt Financing Strategies and Refinancing Opportunities	1.2%
• Updated Customer Growth Projections	0.6%
• Reduced Capital Outlay	0.4%
• LCRA Payment as Source of Funds	0.3%
• Reduced O&M	0.3%
• Reserve Fund Adjustment	0.1%
• <b>Total Reduction from 11.3%</b>	<b>2.9%</b>

## Reduced Expenditures

• Utilize Low Variable Rate Debt	\$ 3,200 K
• Deferred Fleet Purchases	2,000 K
• Claims Projections	825 K
• Anticipated Bond Refinancing	374 K
• Advertising	250 K
• Legal	200 K
• Worker's Comp Medical	200 K
• Communications, Sponsorships, Travel, Conferences & Other Misc.	375 K



## Customer Connections

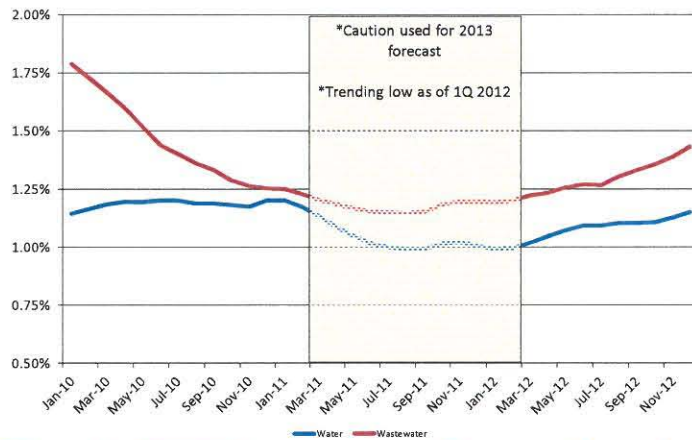
### Improved Forecast

	Water	% Increase	Wastewater	% Increase
2007	344,468		379,962	
2008	348,834	1.27%	389,894	2.61%
2009	352,059	0.92%	395,161	1.35%
2010	356,546	1.27%	400,096	1.25%
2011	360,281	1.05%	405,119	1.26%
2012	365,099	1.34%	412,275	1.77%
2013 Original Projection		0.90%		1.10%
2013 Revised Projection		1.40%		1.70%

## 2013 Customer Growth Forecast

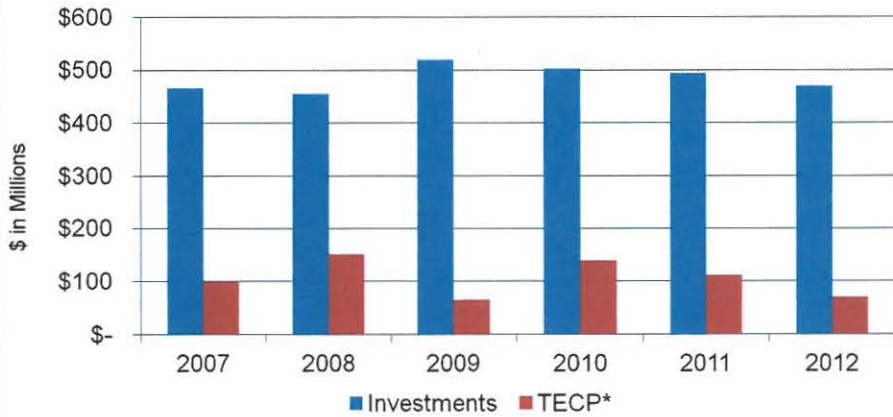
### Significant growth in late 2012 had not been anticipated

12 Month Rolling Average, % change



## Variable Rate Assets & Liabilities

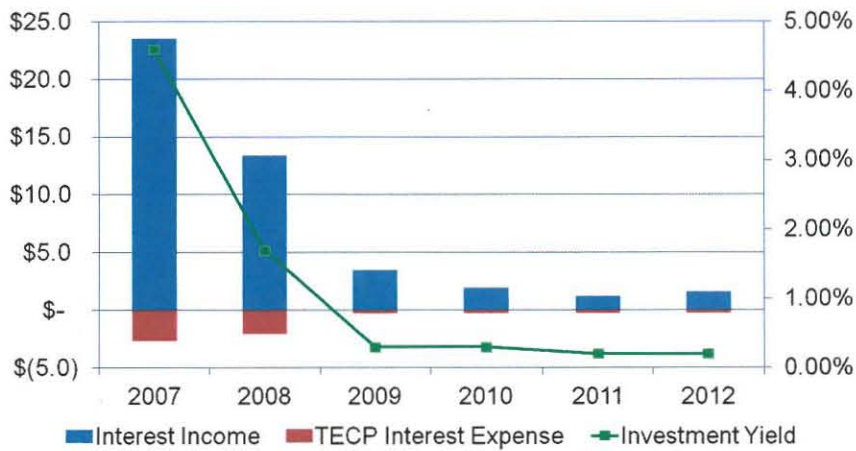
Assets Exceed Liabilities



\* Excludes amounts swapped to fixed

## Reduced Income from Investments

Negative Impact of Low Short-Term Interest Rates



## Altered Financing Plan

Issue \$101.5 M of Variable Rate Debt – 2013 D/S Savings \$3.2 M

Original Plan	Amount	Rate	Term	2013 Debt	
				Service	
SAWS Fixed Rate	\$ 277,305,000	4%	30 Years	\$ 15,864,800	
TWDB Fixed Rate	52,975,000	3%	20 Years	3,232,050	
					\$ 19,096,850
<b>Revised Plan</b>					
SAWS Fixed Rate	\$ 172,305,000	4%	30 Years	\$ 9,861,670	
TWDB Fixed Rate	52,975,000	3%	20 Years	3,232,050	
SAWS Variable Rate	101,500,000	1%*	30 Years	2,791,004	
					\$ 15,884,724

\* Assumed a 3-year put financing at 1% interest

## Anticipated Bond Refinancings

Reduce 2013 Debt Service by \$374 K

Description	Par Amount	Call Date	Projected Savings (NPV)	Percentage Savings (NPV)	Budgeted Reduction 2013 Debt Service
2003 Junior Lien Bonds	\$ 23,980,000	5/15/2013	\$ 1,143,032.06	4.77%	\$ 103,133.19
2004 Senior Lien Bonds*	\$ 71,230,000	5/15/2014	\$ 11,309,892.86	15.88%	\$ 271,278.92

\*Assumes no reserve fund

## Fleet Assets

- Approximately 1,200 Units of Rolling Stock
  - Heavy Equipment: 260
  - Light Duty: 770
  - Trailers/Electric: 190
- Original Cost - \$51.4M
- Book Value - \$25.8M
- Replacement Value – \$60M



## Replacement Criteria

- TxDOT Equipment Replacement Model (TERM)
  - Heavy Equipment: 5 Years and/or 5,000 Hours
  - Light Duty: 125,000 Miles and/or 10 Years
  - Trailers/Electric: 5 Years
- 2013 Funding to meet TERM – SAWS \$19M

## Fleet Buy Deferred

### Deferred \$2 M in Fleet Purchases

#### Original Budget

- Heavy Equipment - \$3.3 M
- Light Duty - \$1.9 M
- Trailers/Electrical - \$1.1 M

#### Revised Budget

- Heavy Equipment - \$1.8 M
- Light Duty - \$1.8 M
- Trailers/Electrical - \$0.7 M

## Reduced O&M Expenditures

### Active Employee Medical Insurance

<i>(\$ in thousands)</i>	Original Projection	Final Projection	Change
2012 Benefit Cost	\$ 15,440	\$ 14,637	\$ (803)
Assumed Medical Inflation	\$ 853	\$ 831	\$ (22)
Savings from Plan Redesign	\$ (791)	\$ (791)	-
2013 Proposed Budget	\$ 15,502	\$ 14,677	\$ (825)

**SAWS claim experience for 2012 was more favorable than originally projected. The revised 2013 budget has factored in these savings.**



## 2013 EAA And TCEQ Fee

## Background

- The EAA Fee was Established by Council Action as a Pass-Through to the Water Customers (Section 34-121.1)
- SAWS was Directed to Show the EAA Fee on the Bill
- SAWS was Delegated the Authority to Adjust the Pass-Through Rate Yearly (Ord. No. 87042 dated 12-1-97)
- The EAA Fee is Calculated Based on the Following Formula:

$$\frac{\text{Permit Fee Billed by EAA} + \text{Over/Under Recovery from the Prior 12-Month Collections}}{\text{Projected Annual Water Usage}} = \text{Adjusted Permit Fee on a Dollars-Per-Gallon}$$

## SAWS - EAA Fee Rate Calculation

2013 Rate

	2013
Estimated Edwards Allotment (Acre-feet)	252,102
Cost per Acre Foot	\$84
EAA Fee	<u>\$21,176,576</u>
Under (Over) Recovery -prior year	(\$358,190)
EAA Rebate	(\$2,257,274)
Amount to be Recovered	<u>\$18,561,112</u>
Projected Annual Water Usage (Billion Gallons)	54.193
Charge per 100 Gallons	<u>\$0.03425</u>
Average Customer Monthly Usage	7,788
Average Residential Bill Impact	<u>\$2.67</u>

2013 Rate Request

Page 63



## DSP - EAA Fee Rate Calculation

2013 Rate

	2013
Estimated Edwards Allotment (Acre-feet)	35,586
Cost per Acre Foot	\$84
EAA Fee	<u>\$2,989,232</u>
Under (Over) Recovery -prior year	(\$24,438)
EAA Rebate	\$0
Amount to be Recovered	<u>\$2,964,794</u>
Projected Annual Water Usage (Billion Gallons)	10.907
Charge per 100 Gallons	<u>\$0.02718</u>
Average Customer Monthly Usage	7,788
Average Residential Bill Impact	<u>\$2.12</u>

2013 Rate Request

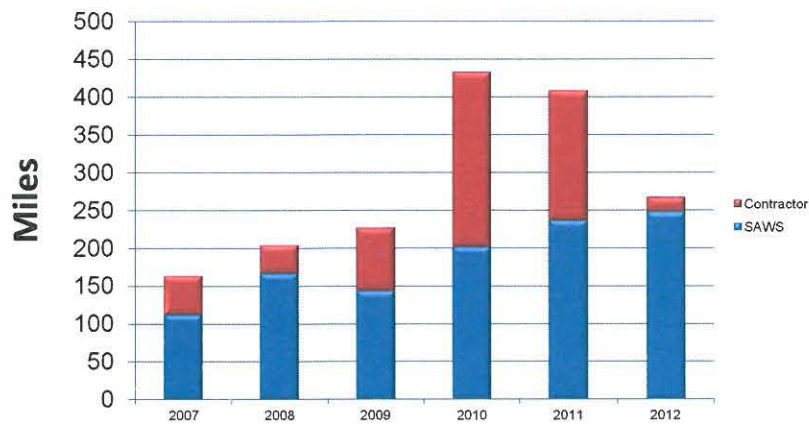
Page 64



# Steve's Slides

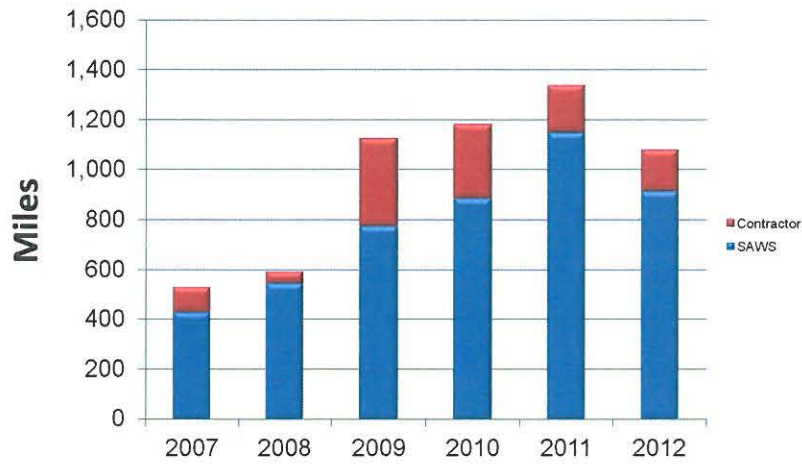
## Televising

Annual work tripled since 2007

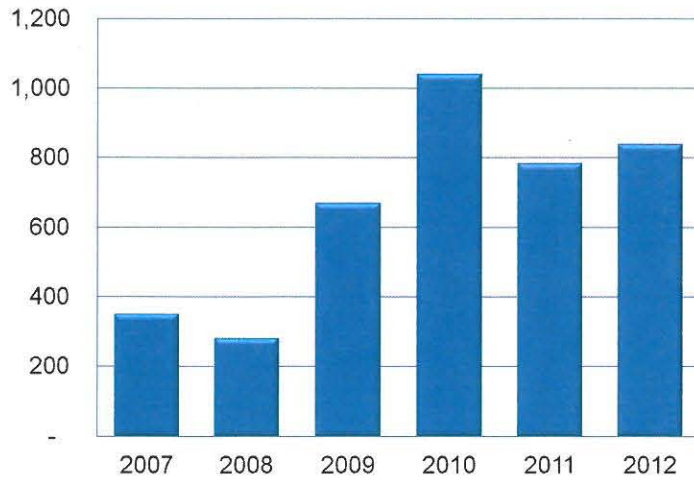


# Line Cleaning

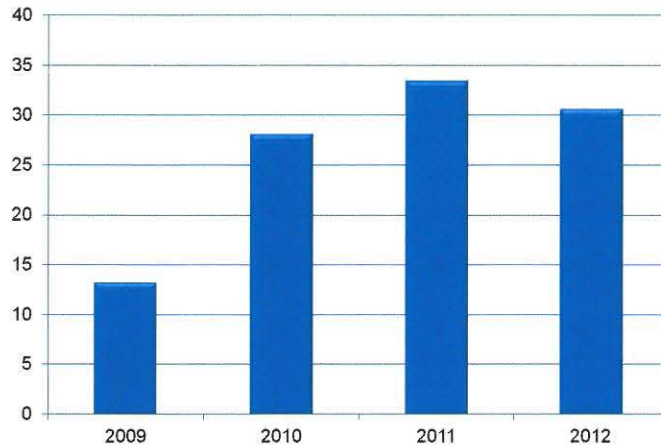
Annual work doubled since 2007



# 2007 -2012 Point Repairs



## 2009-2012 Completed Rehab Miles



## Sanitary Sewer Overflows

### Compliance with the Clean Water Act

“In March 2007, SAWS was orally notified by the... EPA of alleged failures to comply with the Clean Water Act due to the occurrence of sanitary sewer overflows.”



**“Negotiations with the EPA/DOJ are ongoing... any settlement, consent decree, or enforcement action will result in the imposition of a civil penalty and in required capital improvements and increased annual maintenance and operating expenses...”**

- SAWS Comprehensive Annual Financial Reports (CAFRs) Disclosure

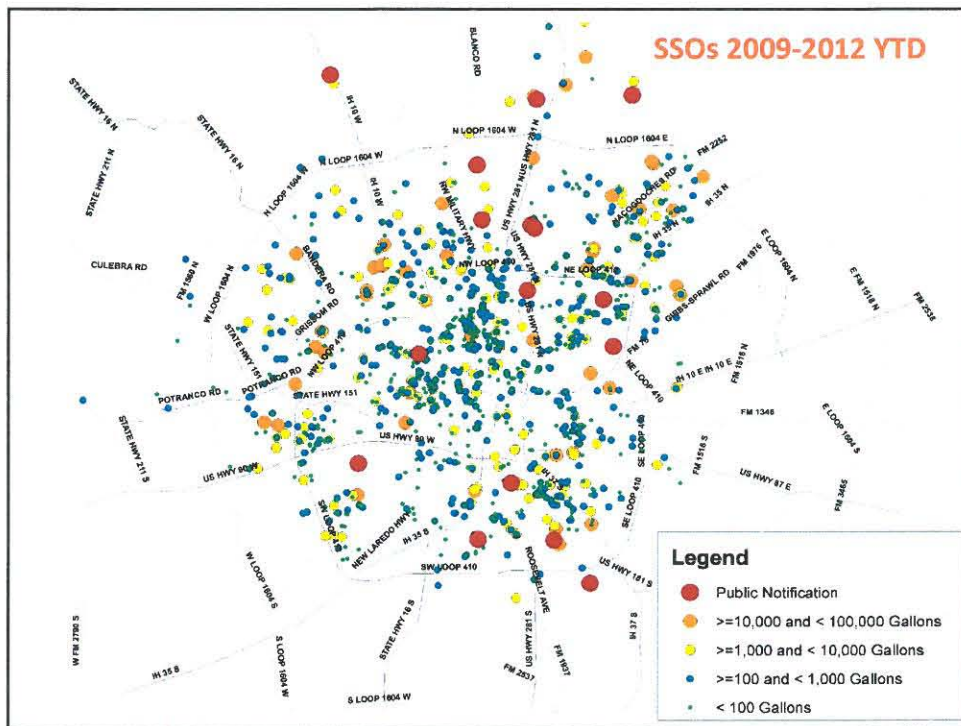
# Consent Decree Settlements

	System miles	\$\$ (billions)	Years
St. Louis	6,700	4.7	23
Los Angeles	6,500	2.0	10
Chicago	4,400	3.0	20
Louisville	3,200	0.9	20
San Diego*	3,000	1.0	6
Kansas City	2,800	2.5	25
Honolulu*	2,100	3.5	25
Baltimore	1,400	1.0	14
Pittsburgh	1,100	3.0	20
Baton Rouge*	1,000	1.4	9

\*working on second consent decree

**San Antonio 5,200**

2013 Rate Request





## 2013 Rate Adjustment

### SSO Reduction Program – O&M

- Televising and Assessment  
– \$2.3 million
- Cleaning  
– \$5.9 million
- Capacity Assessment  
– \$2.1 million
- Program Manager & Data Mgmt  
– \$3.2 million



## 2013 Rate Adjustment

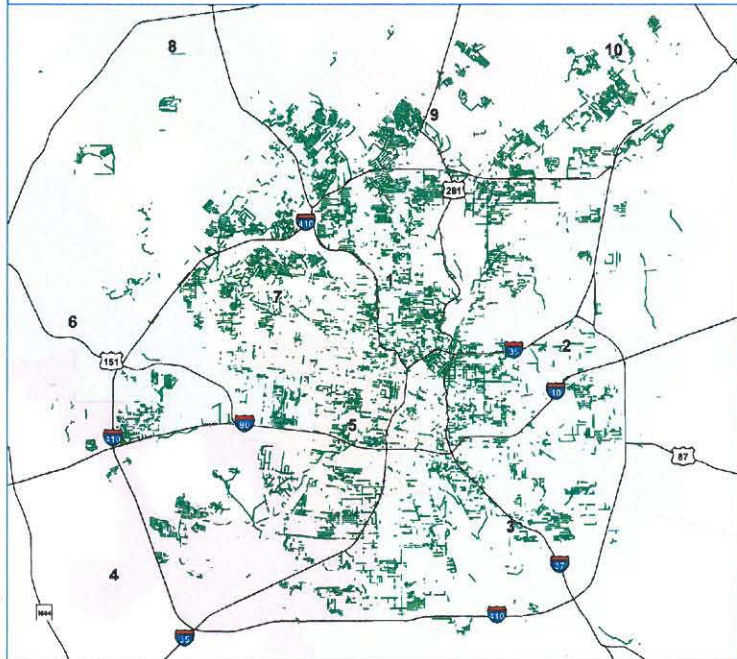
### SSO Reduction Program - Capital

- Pipeline Rehabilitation  
– \$26.6 million
- Manhole Rehabilitation  
– \$1.7 million
- Pipeline Rehab Backlog  
– \$21.2 million
- System Capacity Program  
– \$2.5 million

# Cleaning, Inspection, Evaluation, and Repairs

Maintenance	2012	2013
small diameter line cleaning	1,100 miles	1,500 miles
large diameter line cleaning	27 miles	38 miles
siphon cleaning	14 siphons	30 siphons
SMART covers	120 in system	188 in system
manhole inspections	2,100	5,400
force main inspections	part of EARZ program	5 miles
wet weather evaluations	48 portable flow meters	200 portable flow meters
capacity field investigations	0	estimate 7 events
pole camera evaluations	0 miles	50 miles
closed circuit televising (CCTV)	265 miles	552 miles
Repair and Rehabs	2012	2013
point repairs	831	831+
small diameter rehabilitations	17 miles	More than 40 miles
large diameter rehabilitations	1.9 miles	1.0 complete - remainder TBD

## Small Sewer Main Cleaning for 2013





# **EXHIBIT “H”**

## Outreach to Date

- SAWS Board/Policy and Planning Meetings
- CEO one-on-one with City Council Members
- SAWS Citizen Committees
  - Community Conservation Committee
  - Citizen’s Advisory Panel
  - Bexar Met Integration Advisory Committee
- Chambers of Commerce
  - Greater Chamber
  - Hispanic Chamber
  - Women’s Chamber
  - North Chamber
  - Alamo City Black Chamber
  - West Chamber (01/18/2013)
- Suburban Cities
  - Hill Country Village City Council
  - Castle Hills City Council (pending)
- Mayor Castro’s City Leaders Luncheon

## Outreach to Date

- Editorial Boards
  - Express News
  - The Rivard Report (pending)
  - Plaza de Armas (pending)
- Trade and Civic Organizations
  - San Antonio Manufacturers Association
  - San Antonio Restaurant Association
  - San Antonio Board of Realtors
  - San Antonio Apartment Association
  - Sierra Club
  - COPS/Metro



## Neighborhood Meetings

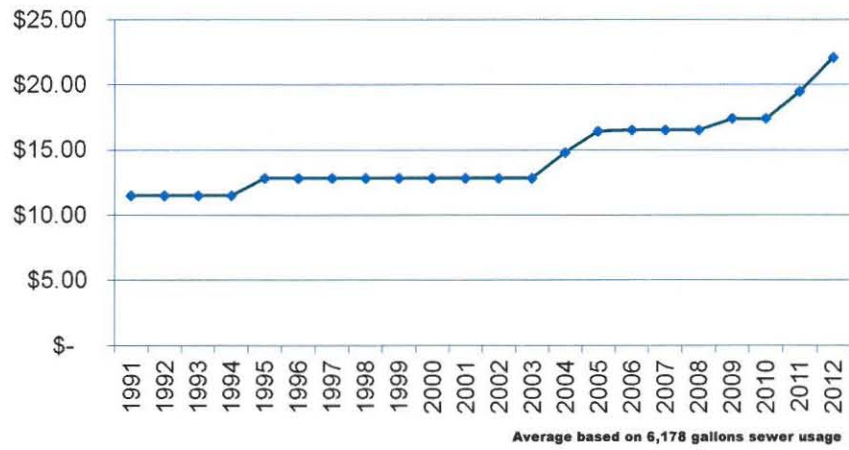
- **Councilman Bernal - District 1**
  - Beacon Hill
  - Edison NA
  - Westfall Library
  - Landa Library
- **Councilman Saldana - District 4**
  - Valley Hi North
  - Rainbow Hills
  - Cortez Library
  - Johnston Library
- **Councilwoman Ivy Taylor - District 2**
  - Eastwood Village
  - Dignowity Hill
  - Dellcrest NA
  - Pruitt Library
  - Carver Library
- **Councilwoman D. Medina - District 5**
  - Memorial Heights
  - Palm Heights
  - Nogalitos Coalition
  - Collins Garden Library
  - Memorial Library
- **Councilwoman Ozuna - District 3**
  - SE Highland Hills Crime Watch
  - McCreless Library
  - Mission Library
- **Councilwoman Lopez - District 6**
  - Meadow Village
  - Los Jardines
  - Pipers Meadow
  - Great NW Library
  - Guerra Library

## SAWS Outreach & Neighborhood Meetings

- **Councilman C. Medina - District 7**
  - Thunderbird Hills
  - Jefferson
  - Braun Station Elementary School
  - Woodlawn Hills Elementary School
- **Councilman Williams- District 8**
  - NNOD
  - NW Neighborhood Alliance (Dist. 6, 7 & 8)
  - Igo Library
  - Cody Library
- **Councilwoman Chan - District 9**
  - Harmony Hills
  - D-9 Alliance
  - Brookhollow Library
  - Parman Library
- **Councilman Soules - District 10**
  - NE Neighborhood Alliance
  - El Dorado
  - Thousand Oaks Library
  - Tobin Library
  - Semmes Library
- **Meetings at SAWS HQ**
  - Public Meeting
  - Neighborhood Leaders Meeting

# Average Residential Wastewater Bill

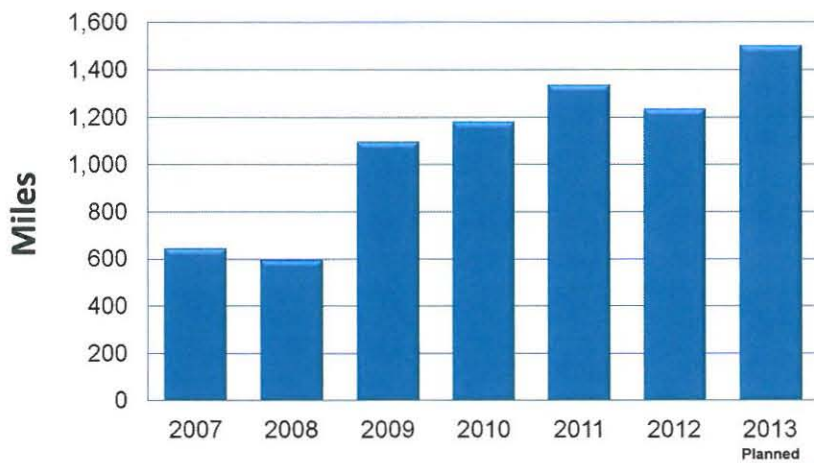
Minimal Investment in SAWS System 1991 – 2003



Average based on 6,178 gallons sewer usage

# Line Cleaning

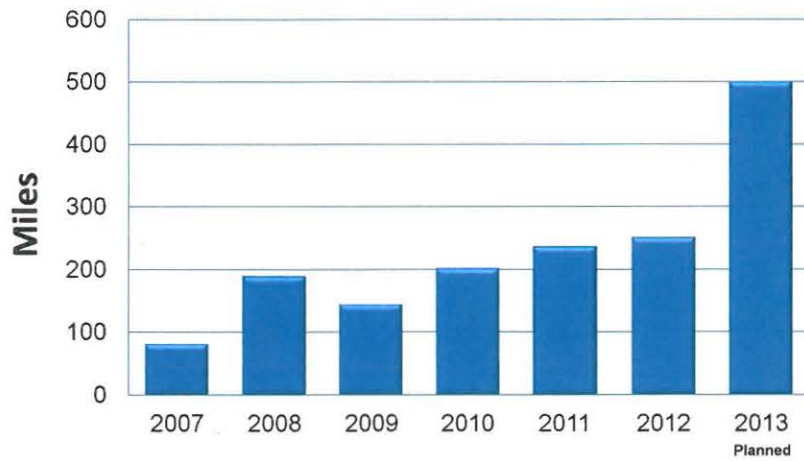
Annual work doubled since 2007



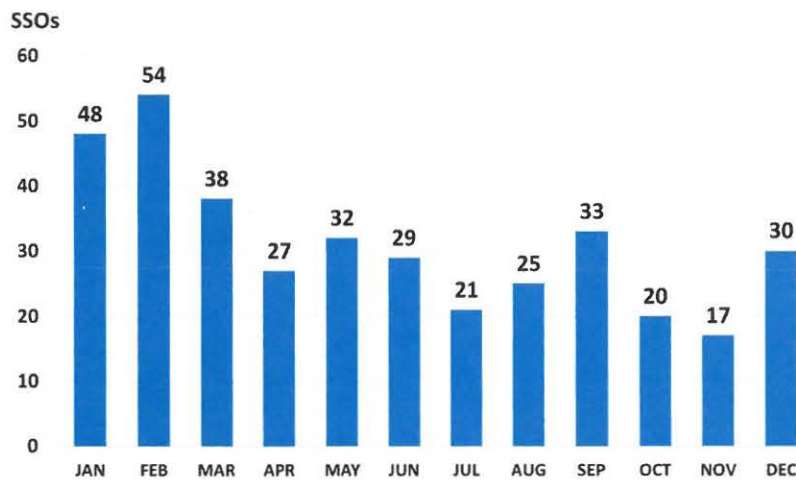
Planned

# Televising

Annual work tripled since 2007



# 2012 SSOs by Month



# Affordability Program

## Current Outreach

- Senior Centers & Nutrition Sites
- Health Fairs
- Back To School events
- Monthly visits to SAWS and DSP Service Centers
- Neighborhood Meetings
- Targeted Block Walks

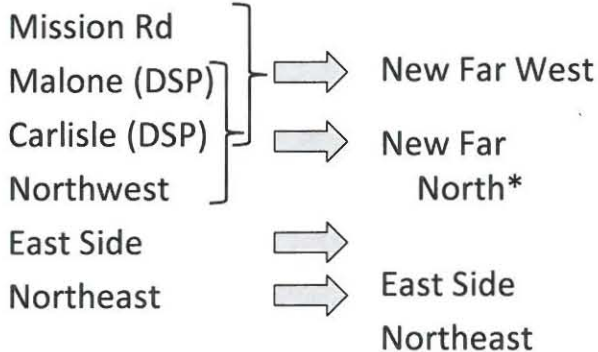


# Service Center Program

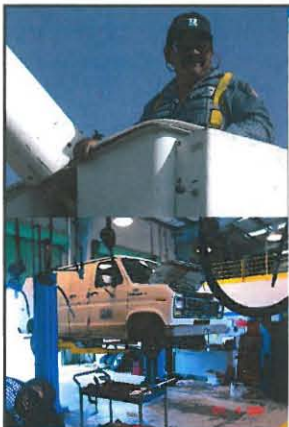
## Realignment for Efficiency

### Existing (6)

### Proposed (4)

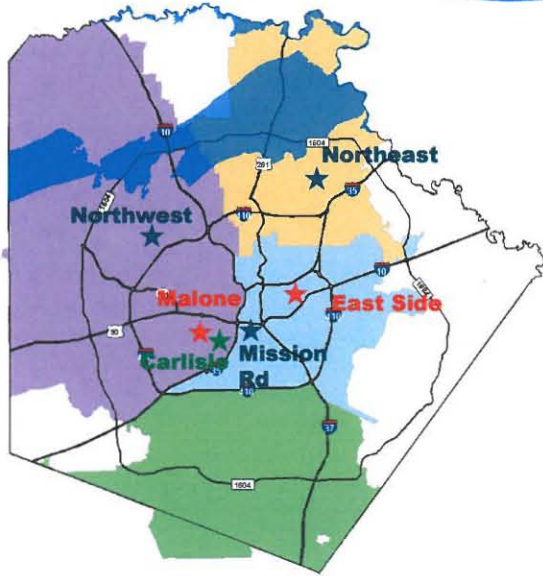


\* To be a Satellite Center



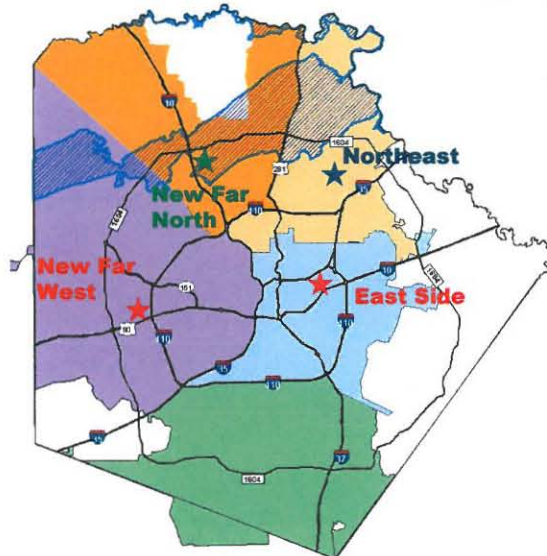
### Existing Service Center Locations:

- ★ Full sized
- ★ Mid-sized
- ★ Satellite



### Service Center Realignment:

- ★ Full sized
- ★ Mid-sized
- ★ Satellite



# **EXHIBIT “I”**



# **Staff Recommendation on SAWS 2013 Rate Adjustments**

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B-Session

January 16, 2013

**Ben Gorzell, Jr., CPA**  
Chief Financial Officer

## Background Information

- San Antonio Water System (SAWS) Proposed a Rate Adjustment of 11.3% System Wide
  - Water Supply – 8.4%
  - Wastewater – 20.2%
  - Water Delivery – 0.0%
  - Chilled Water & Steam – 0.0%
- Proposed Effective Date of March 1, 2013
- Expected to Generate \$39.9 Million in Additional Revenue

# Background Information

- Briefings were held on November 14th, December 6th, and December 12th
  - Revenue Requirements
  - Operations & Maintenance Budget
  - Capital Improvement Program
  - Sanitary Sewer Overflow (SSO) Program
  - Customer Bill Impacts
  - Financial Projections
  - Proposed Updates to the Drought Management Plan
- Responses to City Council questions and requests for additional information provided

# Background Information

- Public Utilities Staff of the Finance Department have been performing comprehensive review
  - Economic/Rate Model
  - Key Financial Targets
  - Capital Improvement Program
  - Operations & Maintenance Budget
  - Revenue Requirements
  - Credit Considerations
- Public Utility and SAWS Staff have been reviewing potential adjustments to the original request of 11.3%

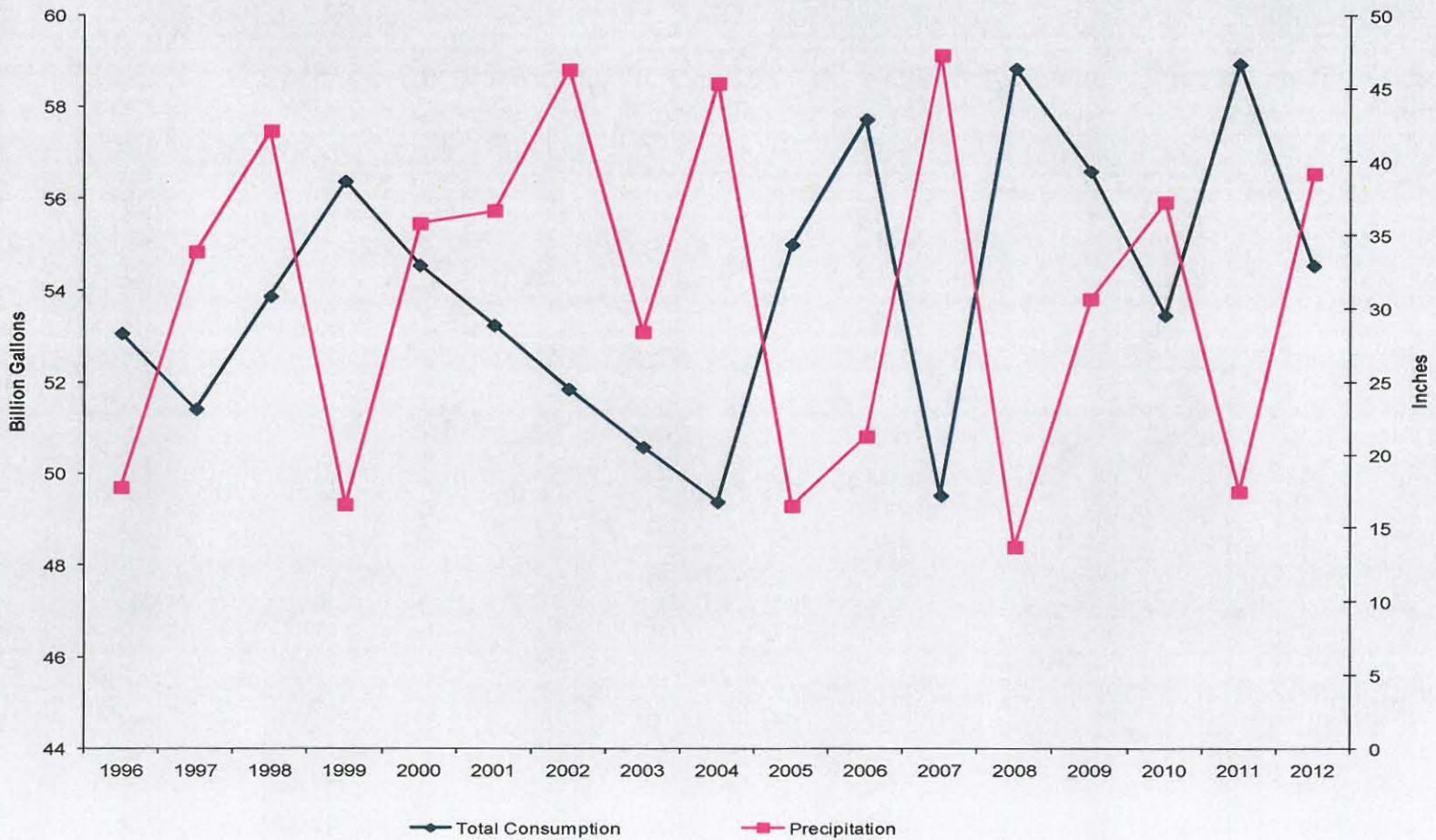
# Revised Rate Request

- Reconciliation of Proposed Rate Request:

Original Rate Request	<u>11.3%</u>
Proposed Adjustments:	
Updated Revenue Projections	(0.6%)
Inclusion of LCRA Payment	(0.3%)
Debt Program	(1.2%)
Capital Outlay – Fleet	(0.4%)
Reduce Operations & Maintenance	(0.3%)
Reserve Fund Adjustment	<u>(0.1%)</u>
Proposed Revised Request	<u>8.4%</u>

- Projections of Water Consumption and Average Winter Consumption
- Average Winter Consumption is average water usage between November 15<sup>th</sup> and March 15<sup>th</sup>
- Projections take into consideration factors such as:
  - Use Per Bill
  - Customer Growth
  - Historical Trends
  - Correlation to Factors such as rainfall

# Consumption vs. Rainfall



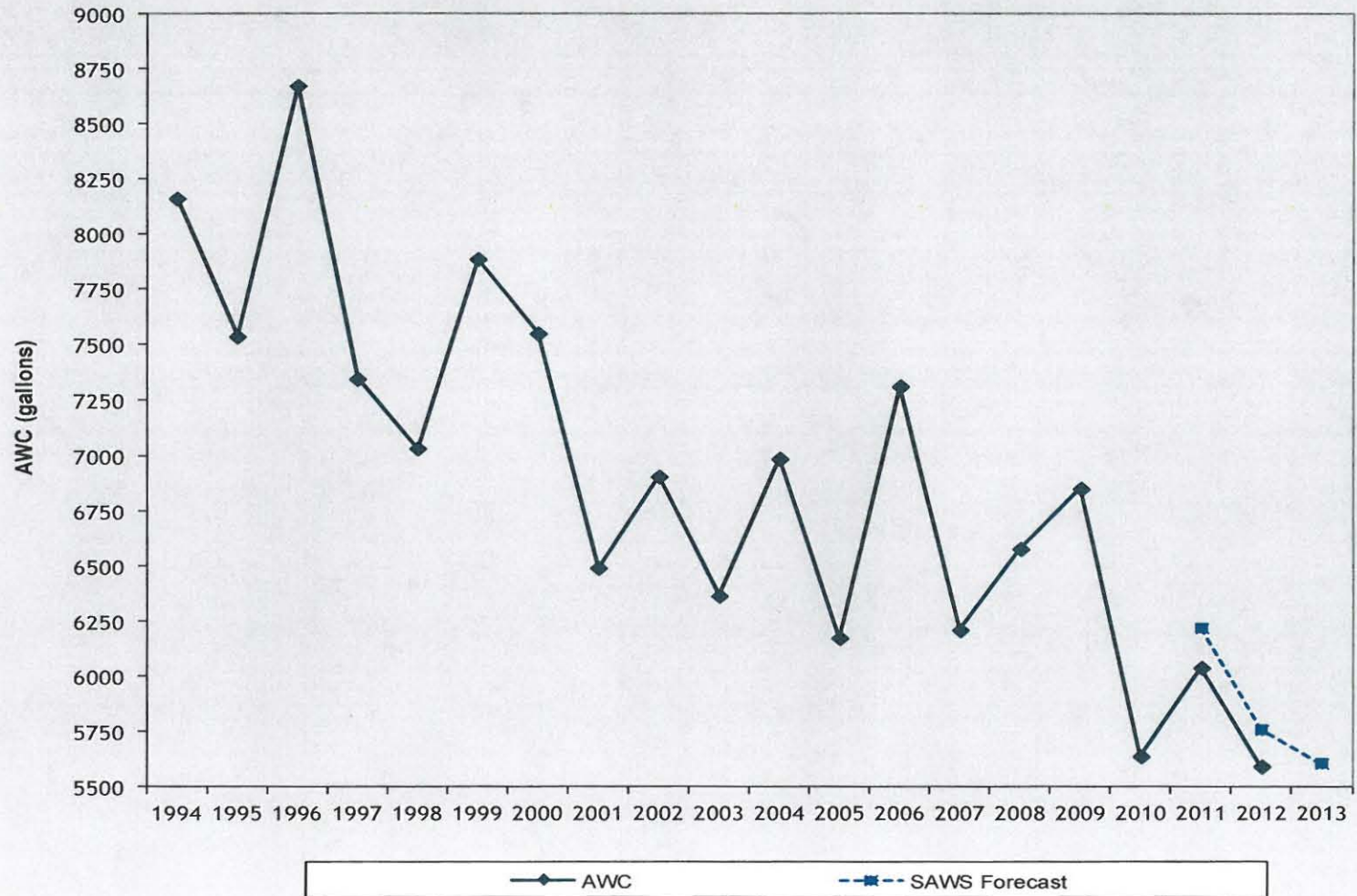
# Water Consumption

- Assumed Customer Growth in 2013 = 1.38%

Total Consumption		Total Consumption	
1996	53,066,630,603	2005	55,004,514,460
1997	51,418,198,739	2006	57,724,007,815
1998	53,874,944,182	2007	49,511,519,717
1999	56,377,505,368	2008	58,827,694,656
2000	54,552,567,246	2009	56,596,205,171
2001	53,239,447,603	2010	53,457,791,126
2002	51,850,778,184	2011	58,926,436,612
2003	50,576,357,752	2012	54,545,909,728
2004	49,365,264,027	2013	55,207,717,153



# Average Winter Consumption



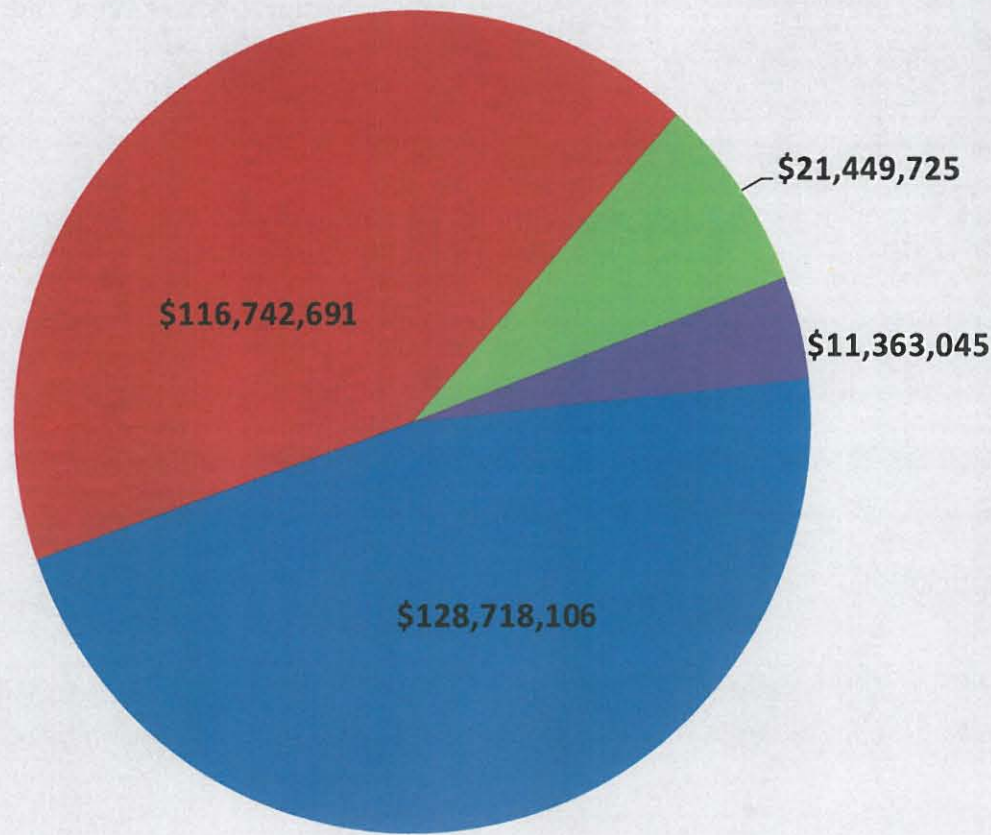
# O&M History and Projections

	2008	2009	2010	2011	2012
	Actual	Actual	Actual	Actual	Projected
<b>O&amp;M Before Capitalization</b>	\$226,651,632	\$234,529,450	\$227,951,115	\$223,616,374	\$264,571,929
<b>Capitalization</b>	(\$29,326,109)	(\$32,872,914)	(\$32,035,170)	(\$30,362,079)	(\$34,236,184)
<b>O&amp;M After Capitalization</b>	\$197,325,523	\$201,656,536	\$195,915,945	\$193,254,295	\$230,335,745
	2013	2014	2015	2016	2017
	Forecast	Forecast	Forecast	Forecast	Forecast
<b>O&amp;M Before Capitalization</b>	\$278,273,567	\$308,864,031	\$318,493,945	\$329,503,963	\$346,304,898
<b>Capitalization*</b>	(\$34,336,580)	(\$35,366,678)	(\$36,427,678)	(\$37,520,508)	(\$38,646,124)
<b>O&amp;M After Capitalization</b>	\$243,936,987	\$273,497,353	\$282,066,267	\$291,983,455	\$307,658,774

\* Assumed capitalization for out-years same as 2013

\*\* Intercenter transfers to DSP (BexarMet)

# 2013 Operations & Maintenance Proposed Budget



■ Salaries and Fringe Benefits    
 ■ Contractual Services    
 ■ Materials and Supplies    
 ■ Other Charges

<b>Salaries and Fringe Benefits</b>	<b>\$ 128,718,106</b>
Salaries	\$ 86,327,140
Employee Insurance	\$ 14,676,771
Retirement	\$ 10,725,372
Retirement-Principal	\$ 11,455,674
<b>Contractual Services</b>	<b>\$ 116,742,691</b>
Utilities	\$ 24,368,136
Water Options	\$ 16,788,582
Ground Water District Pay	\$ 21,351,120
Contractual Prof Svcs	\$ 22,982,639
<b>Materials and Supplies</b>	<b>\$ 21,449,725</b>
Chemicals	\$ 6,478,891
Maintenance Materials	\$ 6,344,270
Motor Fuel & Lubricants	\$ 3,203,529
<b>Other Charges</b>	<b>\$ 11,363,045</b>
Retiree Insurance	\$ 6,823,896

# Authorized & Filled Positions

	2007	2008	2009	2010	2011	2012	2013
<b>Authorized Positions</b>	1,685	1,730	1,746	1,748	1,755	1,748	1,797
<b>Filled - Employed at Year End</b>	1,607	1,595	1,696	1,647	1,669	1,674	

- FY 2012: Included the Transfer of 77 employees from the District Special Project (DSP) into SAWS
- SAWS budgeted turnover in 2013 of \$5.7 million
- Represents a benefit to both the DSP and to SAWS

# SAWS / DSP Transition Benefits

<b>SAWS</b>			
Salaries Allocated From SAWS to DSP		\$ 2,224,717	
Direct labor charges - work crews		1,160,464	
Other Shared Costs Allocated to DSP		2,905,337	
<b>Total Benefit to SAWS Ratepayers</b>			\$ 6,290,518
<b>District Special Project</b>			
Employees Transferred to SAWS		\$ 2,732,976	
Salaries Allocated From SAWS to DSP		(2,224,717)	
Direct labor charges - work crews		(1,160,464)	
<b>Net Benefit to DSP - Salaries</b>			\$ (652,205)
Reduction in O&M expenses - 2012		\$ 4,626,248	
Shared Costs Allocated from SAWS		(2,905,337)	
Net Benefit -Other O&M			\$ 1,720,911
<b>Total Benefit to DSP Ratepayers</b>			\$ 1,068,706

## Performance Pay

- Performance Pay Pool Equivalent to 2.5% of Base Salaries
- Effective April 1, 2013
- Estimated Cost of Approximately \$1.6 million
- Approximately 0.5% of 2.5% utilized to provide a one-time increase in salary to employees making less than \$50,000, in an effort to help offset the impact of accelerating the phase-in of increased employee contribution
- Results in Effective 2.0% Pool
- Range of Performance Award 0% to 3%

# Active Health Benefits

- Comprehensive Benefits Program
  - Several Medical Insurance Plans
  - Dental, Vision, Long-term Disability, and Life Insurance
- Changes Made to Medical Plans
  - Employees hired prior to January 1, 2011 Pay 20%
  - Employees hired after January 1, 2011 Pay 30%
- 8 Year Phase-In implemented in fiscal year 2012 to Reach Targets
- For 2013, Phase-In reduced from 8 Years to 4 Years and Benefits Redesigned
  - Projected Savings: \$1,011,452

# Retirement Health Benefits

- In 2011, announced changes to retirement health benefits for future retirees
  - Depends on employee's hire date and plan selected
  - Employee contribution rate ranges from 20% to 50%
- Subject to Accounting Standards which require recognition of liability for Retirement Health Benefits
- Created External Trust
- In 2011, contributed \$8 million of previously accumulated funds
- 2012 & 2013 – Annual Contribution of \$4 million
- 2013 budget of \$6.8 million for retiree claims
- Actuarially Required Contribution (ARC) – \$20.7 million
- Fully fund this requirement = 5.9% Rate Increase



- Two Pension Plans: Texas Municipal Retirement System (TMRS) & Principal Retirement System
- TMRS
  - Employees contribute 3%
  - SAWS target contribution of 3%
    - Actual Contribution Rate is 4.2%
- Principal
  - SAWS contributes 6%
  - 2013 budget increase of \$1.8 million
  - 2013 budget of \$11.5 million

# Benchmarking – High Level Metrics

	SAWS	Ft. Worth	Dallas	El Paso	Austin	Houston	Phoenix
Miles - W Main	4,988	3,480	5,166	2,530	3,657	7,500	6,962
Miles - WW Main	5,163	3,527	4,364	2,185	2,650	6,403	4,980
<b>Total Miles of Main</b>	<b>10,151</b>	<b>7,007</b>	<b>9,530</b>	<b>4,715</b>	<b>6,307</b>	<b>13,903</b>	<b>11,942</b>
Total W & WW Customers	765,400	436,275	589,766	408,669	387,000	854,549	795,914
O&M \$ (excl. depr.)	\$ 209,058,000	\$ 196,478,000	\$ 251,295,000	\$ 103,434,000	\$ 177,474,000	\$ 362,851,000	\$ 238,699,000
O&M per mile maintained	\$ 20,595	\$ 28,040	\$ 26,369	\$ 21,937	\$ 28,139	\$ 26,099	\$ 19,988
O&M Cost / Customer	\$ 273	\$ 450	\$ 426	\$ 253	\$ 459	\$ 425	\$ 300
Number of Employees	1,669	892	1,369	831	1,070	2,213	1,380
Number of FTE's per 1,000 cust.	2.18	2.04	2.32	2.03	2.76	2.59	1.73
Population	1,326,539	746,290	1,306,350	773,894	805,662	2,107,208	1,502,757
Number of FTE's per pop (000's)	1.26	1.20	1.05	1.07	1.33	1.05	0.92
Total Debt Coverage	1.57	1.77	1.58	1.88	1.83	1.56	1.8

\* W - Water; WW - Wastewater

\*\* SAWS Includes GAAP adjustments, SAWS 2011CAFR, Pg. 75, 76

Source: Most recent Comprehensive Annual Financial Reports

- SAWS – 1,218 fleet assets
  - Heavy Equipment (i.e., dump trucks & backhoes): 257
  - Light Duty (sedans/light pick-up trucks): 770
  - Trailers/Electric: 191
- DSP – 379 fleet assets
  - Heavy Equipment: 144
  - Light Duty: 174
  - Trailers/Electric: 61
- Estimated Current Replacement Value
  - SAWS \$60 million
  - DSP \$18 million
- TxDOT Equipment Replacement Model
  - Heavy Equipment: 5 Years and/or 5,000 hours
  - Light Duty: 125,000 miles and/or 10 years
  - Trailers/Electric: 5 Years

*As of August 2012*

- 2013 Revised Budget of \$8.5 million
  - Automobiles & Trucks \$4.2 million
  - Communications Equipment \$280 Thousand
  - Computer Equipment \$1.6 million
  - Light Equipment \$336 Thousand
  - Machinery & Equipment \$210 Thousand
  - Miscellaneous Equipment \$486 Thousand
  - Pumping Equipment \$739 Thousand
  - Software Systems \$590 Thousand
- Original Request of \$10.5 million for 2013

# Historical Performance of CIP by Core Business

Water Delivery							
Year	CIP Budget	Revised CIP Budget	Commitments	Commit/Budget Variance	Actual	Commit/Actual Variance	% Spent
2008	\$60,305,838	\$64,870,855	\$64,870,855	\$0	\$64,540,391	\$330,464	99%
2009	\$58,091,949	\$48,956,345	\$48,956,345	\$0	\$43,783,702	\$5,172,643	89%
2010	\$78,137,301	\$76,935,709	\$76,935,709	\$0	\$68,225,899	\$8,709,810	89%
2011	\$48,791,640	\$55,557,661	\$55,262,394	\$295,267	\$39,612,622	\$15,649,772	71%
2012 YTD	\$54,013,219	\$54,013,219	\$43,051,632	\$10,961,587	\$13,021,525	\$30,030,107	24%
<b>Total</b>	<b>\$299,339,947</b>	<b>\$300,333,789</b>	<b>\$289,076,935</b>	<b>\$11,256,854</b>	<b>\$229,184,139</b>	<b>\$59,892,796</b>	<b>76%</b>

Wastewater							
Year	CIP Budget	Revised CIP Budget	Commitments	Commit/Budget Variance	Actual	Commit/Actual Variance	% Spent
2008	\$98,282,473	\$110,767,495	\$110,767,495	\$0	\$107,721,806	\$3,045,689	97%
2009	\$123,327,433	\$119,758,818	\$119,758,818	\$0	\$111,203,445	\$8,555,373	93%
2010	\$118,507,888	\$111,457,785	\$111,457,785	\$0	\$99,320,827	\$12,136,958	89%
2011	\$126,851,226	\$125,258,857	\$125,177,233	\$81,624	\$82,848,819	\$42,328,414	66%
2012 YTD	\$122,123,933	\$122,123,933	\$93,779,027	\$28,344,906	\$26,927,273	\$66,851,754	22%
<b>Total</b>	<b>\$589,092,953</b>	<b>\$589,366,888</b>	<b>\$560,940,358</b>	<b>\$28,426,530</b>	<b>\$428,022,170</b>	<b>\$132,918,188</b>	<b>73%</b>

Water Supply							
Year	CIP Budget	Revised CIP Budget	Commitments	Commit/Budget Variance	Actual	Commit/Actual Variance	% Spent
2008	\$72,301,160	\$19,300,938	\$19,300,938	\$0	\$18,602,924	\$698,014	96%
2009	\$85,926,292	\$87,970,272	\$87,970,272	\$0	\$85,062,625	\$2,907,647	97%
2010	\$100,971,787	\$101,149,541	\$86,107,905	\$15,041,636	\$80,125,532	\$5,982,373	79%
2011	\$78,975,957	\$101,238,307	\$101,238,307	\$0	\$12,004,900	\$89,233,407	12%
2012 YTD	\$39,227,144	\$39,227,144	\$13,255,518	\$25,971,626	\$11,470,298	\$1,785,220	29%
<b>Total</b>	<b>\$377,402,340</b>	<b>\$348,886,202</b>	<b>\$307,872,940</b>	<b>\$41,013,262</b>	<b>\$207,266,279</b>	<b>\$100,606,661</b>	<b>59%</b>

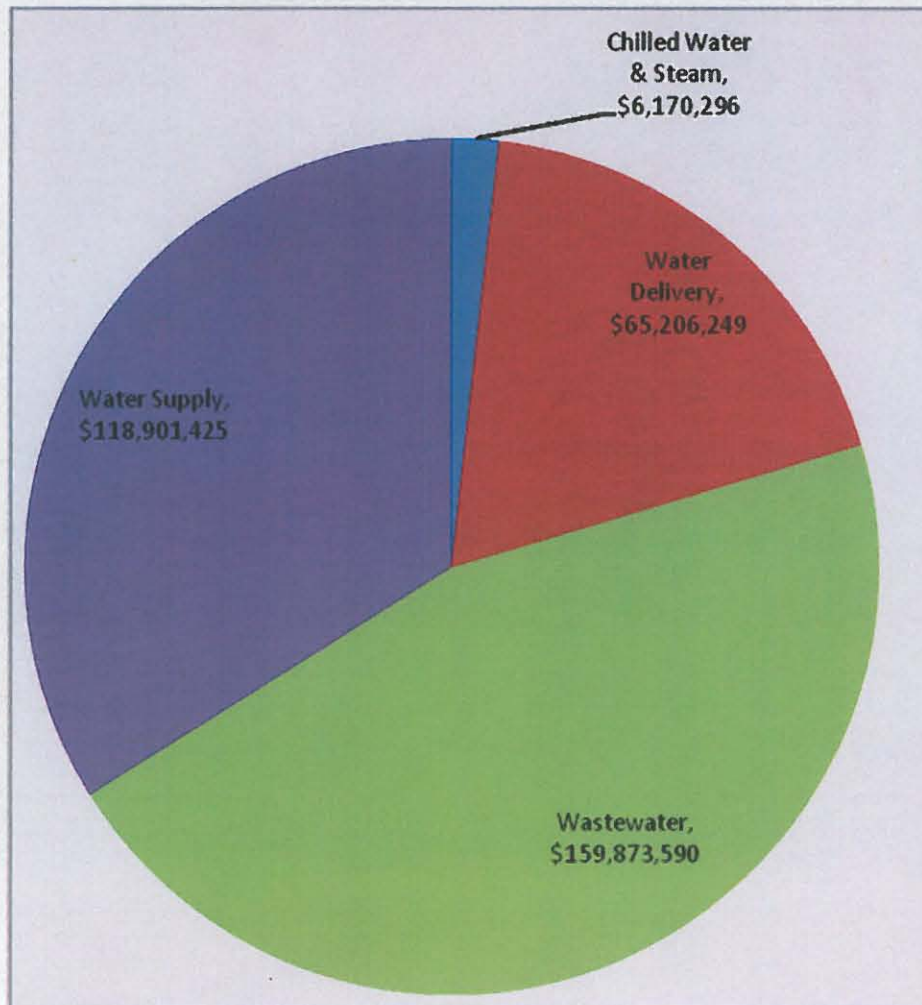
# Proposed CIP Program

## FY 2013 – FY 2017

	2013	2014	2015	2016	2017	Total
<b>Wastewater</b>	\$ 159,873,589	\$ 214,220,116	\$ 225,832,398	\$ 190,747,182	\$ 181,980,810	\$ 972,654,095
<b>Water Delivery</b>	\$ 65,206,249	\$ 66,313,981	\$ 80,435,266	\$ 60,173,552	\$ 90,512,610	\$ 362,641,658
<b>Water Resources</b>	\$ 118,901,425	\$ 142,822,430	\$ 116,518,683	\$ 51,871,122	\$ 60,121,078	\$ 490,234,738
<b>Chilled Water &amp; Steam</b>	\$ 6,170,296	\$ 2,930,500	\$ 527,375	\$ 2,275,625	\$ 6,616,375	\$ 18,520,171
<b>Total</b>	\$ 350,151,559	\$ 426,287,027	\$ 423,313,722	\$ 305,067,481	\$ 339,230,873	\$ 1,844,050,662

# 2013 Capital Improvement Program

Total - \$350 Million

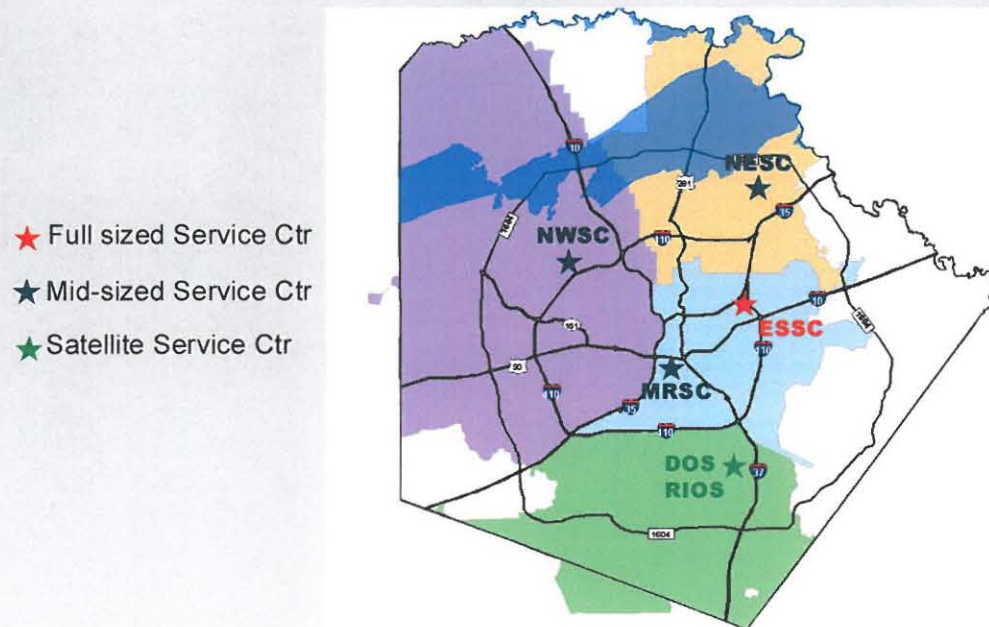


- **Wastewater**
  - Small Diameter Rehab. per SSO Program = \$27.6 M
  - Sanitary Sewer Overflow Rehab = \$20.4 M
  - Government Sewer = \$18.7 M
  - W-6 Leon Creek = \$14.7 M
  - Dos Rios WRC Digester Mixing & System Enhancements – Phase 2 = \$12.5 M
  - San Antonio River Sewer Outfall Pipeline Rehabilitation = \$11.1 M
- **Water Delivery**
  - Government Water = \$16.5 M
  - Water Production Facility Upgrades = \$15.0 M
- **Water Supply**
  - Desalination: Construction Manager at Risk = \$98.0 M
  - Edwards Aquifer Water Rights = \$11.0 M
- **Heating & Cooling**
  - Government Projects = \$5.95 M

# Service Centers

- SAWS Plans to build 2 new service centers
- Expected cost is \$54 million over 3 years
- Anticipated proceeds from the sale of property will be applied against the Service Center Budget

Existing Service Center Locations





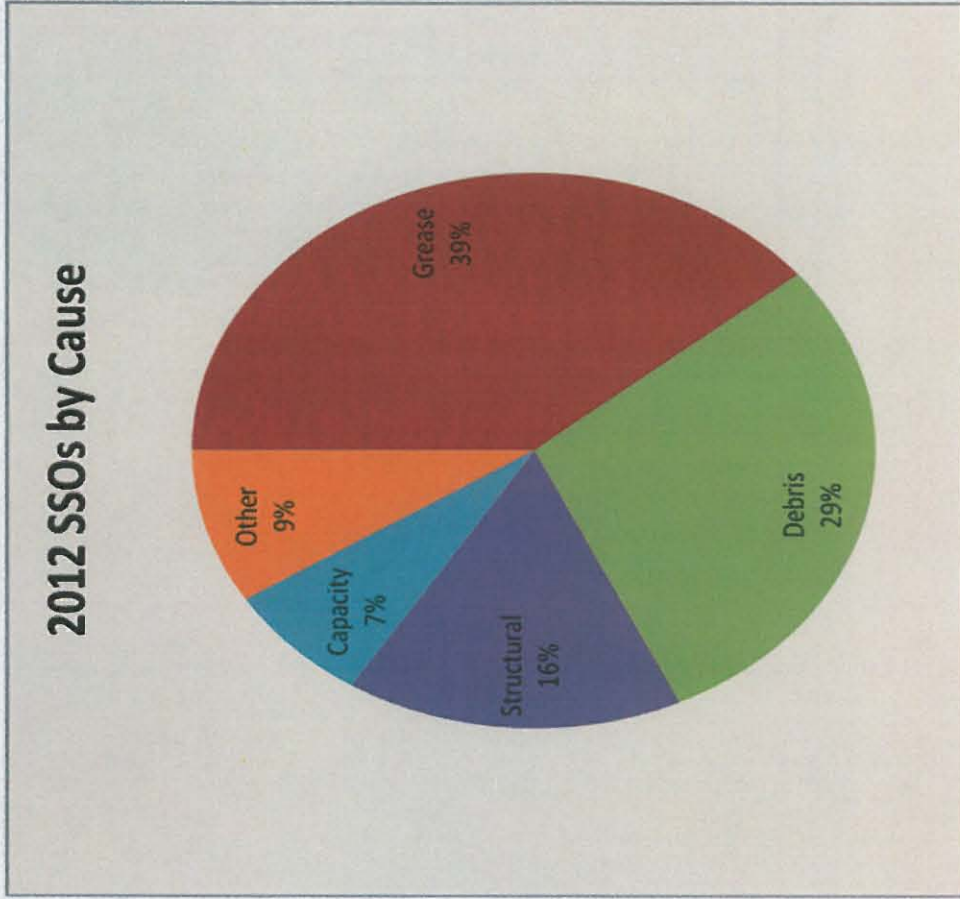
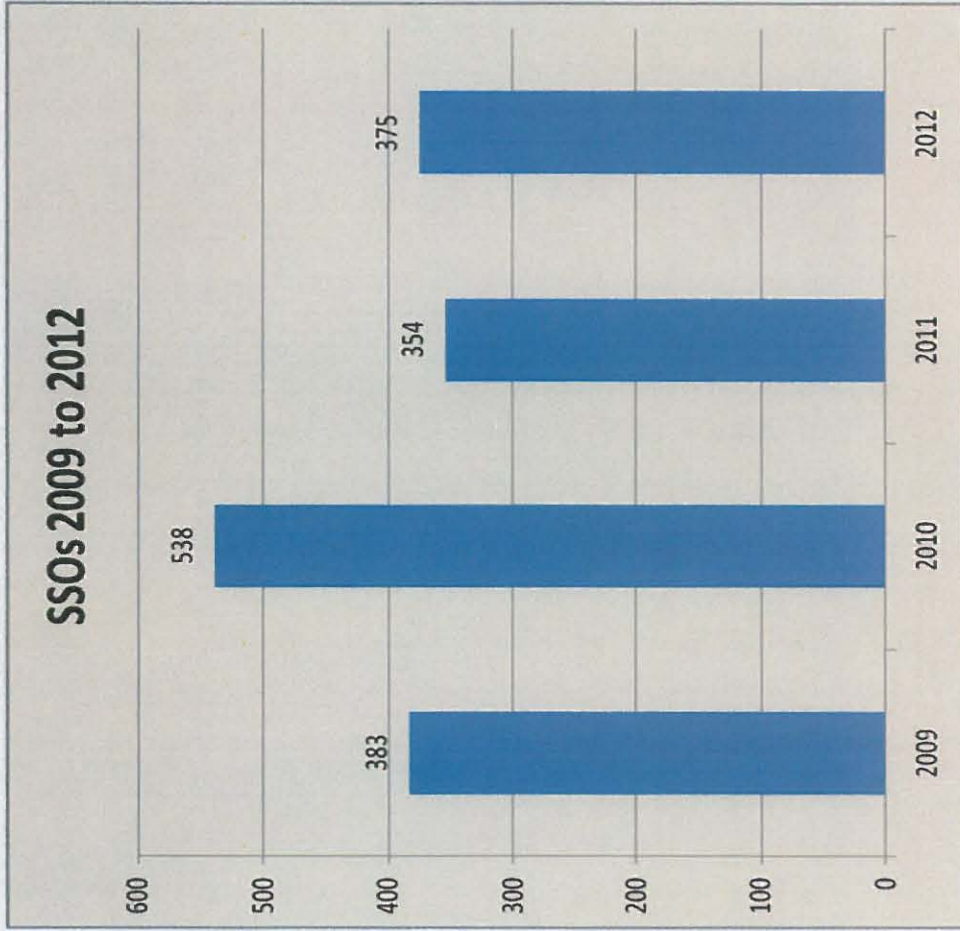
# Wastewater System

- Approximately 410,000 Connections
- 5,200 Miles of Wastewater Mains
- 3 Wastewater Treatment Plants
- 5 Sewersheds
- 160 lift stations

# Wastewater System Miles and Age by Diameter of Pipe

Pipe Diameter (inches)	Under 10 Years (miles)	10-20 Years (miles)	20-30 Years (miles)	30-40 Years (miles)	40-50 Years (miles)	>50 Years (miles)	Unknown (miles)	Grand Total (miles)
2	0.03	0.04	0.87	0.28	-	-	-	1.22
4	2.19	4.27	1.13	0.81	0.39	0.13	0.50	9.42
6	10.26	7.24	4.45	4.61	5.20	30.10	0.06	61.92
8	789.83	788.85	701.70	593.29	377.99	714.08	4.88	3,970.62
10	50.90	54.16	59.12	33.80	26.75	63.54	0.37	288.64
12	59.05	32.22	52.83	26.28	18.04	29.01	3.03	220.46
14	0.06	3.95	0.34	-	0.35	-	-	4.70
15	23.34	15.31	33.38	15.80	11.90	19.15	0.21	119.09
16	1.71	0.33	1.14	2.37	0.26	-	0.03	5.84
18	20.20	17.05	22.25	18.00	8.12	14.73	0.09	100.44
20	1.00	0.29	0.79	0.35	0.31	2.07	0.02	4.83
21	8.55	5.37	16.31	9.94	3.53	6.45	-	50.15
24	8.95	13.04	20.97	16.99	5.55	13.33	0.03	78.86
27	4.36	1.64	11.11	7.41	2.23	3.26	0.10	30.11
30	4.58	1.48	15.89	5.78	7.43	3.60	-	38.76
33	0.64	1.82	2.10	7.72	2.45	5.19	-	19.92
36	12.08	3.25	18.27	3.80	4.81	5.42	0.04	47.67
39	-	-	-	0.07	0.19	1.58	-	1.84
42	5.12	0.63	6.20	7.45	4.71	6.19	0.09	30.39
48	3.12	0.30	4.73	7.01	9.65	1.26	-	26.07
51	-	-	-	-	-	0.21	-	0.21
52	-	-	-	-	-	0.12	-	0.12
54	2.78	0.46	6.07	1.17	12.12	1.42	-	24.02
60	1.63	1.66	1.99	0.18	11.85	0.66	-	17.97
66	2.27	0.14	5.79	-	0.03	-	-	8.23
72	0.77	0.02	5.66	0.03	0.23	5.09	-	11.80
78	2.14	-	0.37	-	0.20	-	-	2.71
84	3.22	-	5.53	-	-	-	-	8.75
90	3.66	-	8.18	-	0.35	-	-	12.19
Unknown	0.17	-	-	-	-	-	0.01	0.18
<b>Total</b>	<b>1,022.61</b>	<b>953.52</b>	<b>1,007.17</b>	<b>763.14</b>	<b>514.64</b>	<b>926.59</b>	<b>9.46</b>	<b>5,197.13</b>

# Sanitary Sewer Overflows (SSO)



# Historical & Projected SSO O&M Expenditures

SSO Initiative '07-'13	Actuals-2007	Actuals-2008	Actuals-2009	Actuals-2010	Actuals-2011	2012-Projected	Budget-2013
Main Repairs	4,647,836	4,462,080	6,601,552	5,547,859	5,969,290	6,285,283	6,524,254
Lift Station Maintenance and Operations	1,943,331	2,273,510	1,995,535	2,210,310	2,853,247	3,313,798	2,793,543
Concrete & Asphalt for Site Restorations	384,349	255,981	221,439	249,311	219,747	291,886	267,352
Edwards Aquifer Recharge Zone Televising	343,518	448,331	1,082,434	2,113,200	2,712,144	733,855	769,491
Collection PM Televising	2,615,625	2,749,765	5,022,979	3,618,595	4,626,559	5,323,202	4,837,463
Sewer Lateral Inspections	124,788	157,875	117,027	67,091	192,937	126,542	110,000
Internal Data Management	-	-	449,336	427,465	734,670	852,108	899,596
Fats Oils and Grease (FOG) Program	-	-				88,134	239,110
Program Manager Technical Support	-	-					1,314,814
Contractual Service - Sewer Assessments	-	-	-	-	-	-	3,885,253
Contractual Service - System Cleaning	-	-					7,064,599
<b>Total</b>	<b>10,059,447</b>	<b>10,347,542</b>	<b>15,490,302</b>	<b>14,233,831</b>	<b>17,308,595</b>	<b>17,014,808</b>	<b>28,705,475</b>

# Proposed Line Cleaning & Televising

- Line Cleaning
  - Small Diameter Pipe
    - 1,100 miles in 2012 to 1,500 miles in 2013 (incr. cost of \$2.2M)
  - Large Diameter Pipe
    - 27 miles in 2012 to 38 miles in 2013 (incr. cost of \$1.6M)
  - Siphons
    - 14 siphons in 2012 to 30 siphons in 2013 (incr. cost of \$1.5M)
- Televising
  - Pipes
    - 265 miles in 2012 to 550 miles in 2013 ( incr. cost of \$1.9M)
  - Pole-cams through a manhole
    - Increase pole-cam assessment, 50 miles (incr. cost of \$130K)

## Other Information on SSO Program

- Physical inspection of manholes
  - 2,100 in 2012 to 5,400 in 2013 (increased cost of \$171K)
- Physical inspection of force mains
  - 5 force mains in 2013 (increased cost of \$45K)
- FOG program continuation
- Enhance capacity modeling and capacity constraint program
- Flow meters for rainfall data capture
  - 48 in 2012 to 200 in 2013 (increased cost of \$960K)
- New SSO rainfall investigation (increased cost of \$75K)
- Smart covers for manholes
  - 120 in 2012 to 188 in 2013 (increased cost of \$300K)
- Rainfall system assessment program (increased cost of \$100K)

## *Bond Indenture:*

Gross Revenues shall be pledged in the following order of priority:

1. Maintenance and Operating Expenses
  2. Debt Service and Reserve Fund Requirements
  3. City General Fund Transfer
  4. Equal Transfer to Renewal & Replacement
  5. Any Surplus Transferred to Renewal & Replacement
- Amounts transferred to Renewal & Replacement provide cash funding for capital program

# Flow of Funds for 2013

	2013 Budget
<b>Gross Revenues Per Ordinance</b>	<b>\$ 462,563,386</b>
LCRA Payment	\$ 1,400,000
Capital Recovery Fees	\$ 36,000,000
<b>Total Sources of Funds</b>	<b><u>\$ 499,963,386</u></b>
<b>Bond Indenture Requirements</b>	
A. Total O&M Expenses (net of capitalization)	\$ 243,936,987
B. Operating Reserve	\$ 5,663,811
C. Total Bond Debt Service	\$ 162,134,310
D. Debt Service - TECP	\$ 625,000
E. Other Debt & Debt Expenses	\$ 2,827,339
F. Transfer to the City	\$ 11,742,274
G. Transfer to the R&R	
Matching City Payment	\$ 11,742,274
Debt Service Requirement	\$ 16,820,298
<b>Total Bond Indenture Requirements</b>	<b><u>\$ 455,492,293</u></b>
H. Capital Outlay	\$ 8,471,093
I. Transfer to R&R - Capital Recov. Fees	\$ 36,000,000
<b>Total</b>	<b><u>\$ 499,963,386</u></b>



# Debt Outstanding

- Senior Lien Debt
  - Outstanding \$1,605.2 million
- Junior Lien Debt
  - Outstanding \$382.6 million
- Tax Exempt Commercial Paper
  - Outstanding \$170.7 million
  - Authorized Capacity \$500 million
  - Revolving Credit Facility \$400 million

# **EXHIBIT “J”**

ATTACHMENT I  
Schedule A

RESIDENTIAL CLASS WATER AND SEWER RATE SCHEDULES  
SAN ANTONIO WATER SYSTEM

San Antonio, Texas

Effective for Consumption on or about March 1, 2013

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

MONTHLY SERVICE AVAILABILITY CHARGE

Meter Size	Service Availability Charge
5/8"	\$7.14
3/4"	10.01
1"	15.75
1-1/2"	30.09
2"	47.28
3"	87.44
4"	144.78
6"	288.17
8"	460.22
10"	660.95
12"	1,234.47

MONTHLY VOLUME CHARGE

Usage Blocks Gallons	Rate Per 100 Gallons	
	Standard	Seasonal
First 5,985	\$0.0948	\$0.0948
Next 6,732	0.1372	0.1492
Next 4,488	0.1935	0.2219
Over 17,205	0.3388	0.4597

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.

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

MONTHLY SERVICE AVAILABILITY CHARGE

Meter Size	Service Availability Charge
5/8"	\$9.29
3/4"	13.02
1"	20.47
1-1/2"	39.12
2"	61.48
3"	113.68
4"	188.23
6"	374.62
8"	598.30
10"	859.24
12"	1,604.82

MONTHLY VOLUME CHARGE

Usage Blocks Gallons	Rate Per 100 Gallons	
	Standard	Seasonal
First 5,985	\$0.1234	\$0.1234
Next 6,732	0.1784	0.1940
Next 4,488	0.2516	0.2885
Over 17,205	0.4405	0.5975

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.

SEWER

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.

INSIDE CITY LIMITS (ICL)

Monthly Service Availability Charge (includes first 1,496 gallons) - ~~\$9.86~~ \$11.49  
Over 1,496 gallons - ~~\$0.2615~~ \$0.3047 per 100 gallons.

Customers who do not have a record of winter water usage or an interim average will be billed an Unaveraged or Unmetered Residential Charge of ~~\$27.47~~ \$32.00 per month.

OUTSIDE CITY LIMITS (OCL)

Monthly Service Availability Charge (includes first 1,496 gallons) - ~~\$11.85~~ \$13.81  
Over 1,496 gallons - ~~\$0.3138~~ \$0.3656 per 100 gallons.

Customers who do not have a record of winter water usage or an interim average will be billed an Unaveraged or Unmetered Residential Charge of ~~\$32.97~~ \$38.41 per month.

ATTACHMENT I  
Schedule B

**GENERAL CLASS WATER AND SEWER RATE SCHEDULES  
SAN ANTONIO WATER SYSTEM**

San Antonio, Texas

Effective for Consumption on or about March 1, 2013

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

MONTHLY SERVICE AVAILABILITY CHARGE		MONTHLY VOLUME CHARGE	
<u>Meter Size</u>	<u>Service Availability Charge</u>	<u>Usage Blocks, Gallons</u>	<u>Rate Per 100 Gallons</u>
5/8"	\$9.92	Base*	\$0.1148
3/4"	14.18	>100-125% of Base	0.1372
1"	22.68	>125-175% of Base	0.1924
1-1/2"	43.95	>175% of Base	0.2818
2"	69.48		
3"	129.04		
4"	214.13		
6"	426.86		
8"	682.12		
10"	979.93		
12"	1,830.83		

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

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

MONTHLY SERVICE AVAILABILITY CHARGE		MONTHLY VOLUME CHARGE	
<u>Meter Size</u>	<u>Service Availability Charge</u>	<u>Usage Blocks, Gallons</u>	<u>Rate Per 100 Gallons</u>
5/8"	\$12.89	Base*	\$0.1492
3/4"	18.43	>100-125% of Base	0.1783
1"	29.48	>125-175% of Base	0.2501
1-1/2"	57.14	>175% of Base	0.3662
2"	90.33		
3"	167.76		
4"	278.37		
6"	554.91		
8"	886.76		
10"	1,273.92		
12"	2,380.08		

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

**SEWER**

Sewer service charges are computed from the water usage schedules below for all metered connections.

INSIDE CITY LIMITS (ICL)	OUTSIDE CITY LIMITS (OCL)
Monthly Service Availability Charge (includes first 1,496 gallons) - <del>\$9.86</del> <u>\$11.49</u>	Monthly Service Availability Charge (includes first 1,496 gallons) - <del>\$11.85</del> <u>\$13.81</u>
Over 1,496 gallons - <del>\$0.2645</del> <u>\$0.3047</u> per 100 gallons.	Over 1,496 gallons - <del>\$0.3138</del> <u>\$0.3656</u> per 100 gallons.

ATTACHMENT I  
Schedule C

**WHOLESALE CLASS WATER AND SEWER RATE SCHEDULES  
SAN ANTONIO WATER SYSTEM**

San Antonio, Texas

Effective for Consumption on or about March 1, 2013

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

MONTHLY SERVICE AVAILABILITY CHARGE		MONTHLY VOLUME CHARGE	
<u>Meter Size†</u>	<u>Service Availability Charge</u>	<u>Usage Blocks, Gallons</u>	<u>Rate Per 100 Gallons</u>
6"	\$288.17	<u>Base*</u>	<u>\$0.0796</u>
8"	460.22	<u>&gt;100-125% of Base</u>	<u>0.1196</u>
10"	660.95	<u>&gt;125-175% of Base</u>	<u>0.1727</u>
12"	1,234.47	<u>&gt;175% of Base</u>	<u>0.2442</u>

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

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

MONTHLY SERVICE AVAILABILITY CHARGE		MONTHLY VOLUME CHARGE	
<u>Meter Size†</u>	<u>Service Availability Charge</u>	<u>Usage Blocks, Gallons</u>	<u>Rate Per 100 Gallons</u>
6"	\$374.62	<u>Base*</u>	<u>\$0.1035</u>
8"	598.30	<u>&gt;100-125% of Base</u>	<u>0.1555</u>
10"	859.24	<u>&gt;125-175% of Base</u>	<u>0.2245</u>
12"	1,604.82	<u>&gt;175% of Base</u>	<u>0.3174</u>

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

† 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."

**SEWER**

INSIDE CITY LIMITS (ICL)

~~\$0.2357~~ \$0.2746 Monthly Volume Charge per 100 gallons of contributed wastewater. (~~\$1.77~~ \$2.06 per 100 cubic feet)

OUTSIDE CITY LIMITS (OCL)

~~\$115.82~~ \$134.93 Monthly Service Availability Charge plus ~~\$0.2830~~ \$0.3297 Monthly Volume Charge per 100 gallons of contributed wastewater. (~~\$2.12~~ \$2.47 per 100 cubic feet)

ATTACHMENT I  
Schedule E

**WATER SUPPLY FEE SCHEDULE  
SAN ANTONIO WATER SYSTEM**

San Antonio, Texas

Effective for Consumption on or about March 1, 2013

The Water Supply Fee assessed on all potable water service for water usages in every instance of service for each month or fraction thereof shall be as follows:

<u>Rate Class</u>	<u>Usage Blocks, Gallons</u>	<u>Fee to be Assessed (per 100 gallons)</u>	<u>Fee to be Assessed (per 100 gallons)</u>
<u>Residential</u>	First 5,985	<u>\$0.1054</u>	<u>\$0.1080</u>
	Next 6,732	<u>\$0.1524</u>	<u>\$0.1562</u>
	Next 4,488	<u>\$0.2150</u>	<u>\$0.2204</u>
	Over 17,205	<u>\$0.3763</u>	<u>\$0.3857</u>
<u>General</u>	Base*	<u>\$0.1620</u>	<u>\$0.1661</u>
	>100-125% of Base	<u>\$0.1620</u>	<u>\$0.1661</u>
	>125-175% of Base	<u>\$0.1620</u>	<u>\$0.1661</u>
	>175% of Base	<u>\$0.1620</u>	<u>\$0.1661</u>
<u>Wholesale</u>	Base*	<u>\$0.1620</u>	<u>\$0.1661</u>
	>100-125% of Base	<u>\$0.1620</u>	<u>\$0.1661</u>
	>125-175% of Base	<u>\$0.1620</u>	<u>\$0.1661</u>
	>175% of Base	<u>\$0.1620</u>	<u>\$0.1661</u>
<u>Irrigation</u>	0 Gallons	<u>\$0.0000</u>	<u>\$0.0000</u>
	Next 6,732	<u>\$0.1620</u>	<u>\$0.1661</u>
	Next 10,473	<u>\$0.2150</u>	<u>\$0.2204</u>
	Over 17,205	<u>\$0.4081</u>	<u>\$0.4183</u>

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