



**2012 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet**

Heating & Cooling
Heating & Cooling



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Heating and Cooling System Infrastructure 2012

Programmed Amount: \$115,000

Core Business Heating & Cooling

Category: Heating & Cooling

Phase: Construction

Council District 1,2

PROJECT INFORMATION

Project Objective: Heating & Cooling Infrastructure Repair and Rehabilitation

Description and Scope:

Annual requirement for emergency repair and/or replacement of Heating & Cooling related capital assets; including distribution mains and chilled water and steam equipment and facilities. Projects vary in size and location. Unspecified scope.

Remarks:

Operating Impact: This project will have no significant impact on operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Equipment Failure	Service Interruption	Failed System Component	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$100,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

Wastewater Collection Growth



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Medina River Sewer Outfall Segment 4

Programmed Amount: \$19,218,460

Core Business: Wastewater

Category: Collection Growth

Phase: Construction

Council District: OCL



PROJECT INFORMATION

Project Objective: Construct sewer infrastructure to support growth in the South and Lower Far West sewers

Description and Scope:

This Project will construct approximately 26 miles of sewer outfall main ranging in size from 24-inch to 96-inch diameter. This project will extend from Dos Rios WRC along Medina River to a point south of Highway 90 and west of Loop 1604 on the west side of Bexar County. The 2012 funding is for Segments 4 and 5. The economic impact of this project can be measured in making possible the future elimination of numerous lift stations in the Far West and South sewersheds, eliminating the need for future expansions to Leon Creek and Medio Creek WRCs, and preventing proliferation of package treatment plants in the South sewershed.

Remarks:

Construction schedule:
 2010 - Segments 1 and 6
 2011 - Segments 2 and 3
 2012 - Segments 4 and 5

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Capacity	Line Surcharge	Undersized Lines	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

<u>FUNDING INFORMATION</u>	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2009	2008	2012
	\$10,000,000	\$0	\$17,523,899



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Medina River Sewer Outfall Segment 5

Programmed Amount: \$15,728,937

Core Business Wastewater

Category: Collection Growth

Phase: Construction

Council District OCL



PROJECT INFORMATION

Project Objective: Construct sewer infrastructure to support growth in the South and Lower Far West sewers

Description and Scope:

This Project will construct approximately 26 miles of sewer outfall main ranging in size from 24-inch to 96-inch diameter. This project will extend from Dos Rios WRC along Medina River to a point south of Highway 90 and west of Loop 1604 on the west side of Bexar County. The 2012 funding is for Segments 4 and 5. The economic impact of this project can be measured in making possible the future elimination of numerous lift stations in the Far West and South sewersheds, eliminating the need for future expansions to Leon Creek and Medio Creek WRCs, and preventing proliferation of package treatment plants in the South sewershed.

Remarks:

Construction schedule:
 2010 - Segments 1 and 6
 2011 - Segments 2 and 3
 2012 - Segments 4 and 5

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Capacity	Line Surcharge	Undersized Lines	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

<u>FUNDING INFORMATION</u>	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2009	2008	2012
	\$10,000,000	\$0	\$14,342,060



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Sewer Main Oversizing 2012

Programmed Amount: \$329,010

Core Business: Wastewater

Category: Collection Growth

Phase: Construction

Council District: System wide



PROJECT INFORMATION

Project Objective: Oversize sewage collection system for future growth.

Description and Scope:

Pay for SAWS proportionate share of the cost of mains which are necessary to serve anticipated growth but are larger than the size main required by a developer customer or single customer. This annual requirement provides funds to oversize various sewer main installations throughout the service area. Unspecified scope.

Remarks:

Operating Impact: This project will have no significant impact on operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Capacity	Line Surcharge	Undersized Lines	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
5	8	10	400

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012
\$300,000



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: W-6 Leon Creek: Hwy 90 to New Laredo Hwy

Programmed Amount: \$13,160,400

Core Business Wastewater

Category: Collection Growth

Phase: Construction

Council District 4



PROJECT INFORMATION

Project Objective: Construct sewer infrastructure to support growth in the Western Sewershed

Description and Scope:

This project consists of approximately 31,000 linear feet of 8-inch, 10-inch, 15-inch, 48-inch, 54-inch, and 60-inch wastewater mains. The project will construct 66-inch, 54-inch, and 48-inch gravity mains along Leon Creek between New Laredo Highway and Highway 90. This project also includes a 15-inch, 10-inch, and 8-inch main west of Leon Creek along Hall Street. There were several recent emergency projects on this main and this project is a high priority project.

(formerly Western Relief Main, Hwy 90 to Loop 410 Lower to Upper Segments) The lower segment includes W-39: New Laredo Hwy to Hwy 16.

Remarks:

Construction in 6 phases 2012-2017. Total construction cost \$85 million.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Capacity	Line Surcharge	Undersized Lines	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

<u>FUNDING INFORMATION</u>	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2011	2010	2012
	\$3,500,000	\$2,000,000	\$12,000,000



**2012 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet**

**Wastewater
Collection R&R**



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: C-33 Broadway Corridor: Carnahan to Mulberry

Programmed Amount: \$8,773,600

Core Business Wastewater

Category: Collection R&R

Phase: Construction

Council District 9



PROJECT INFORMATION

Project Objective: Construct sewer infrastructure to support growth in the Central Sewershed

Description and Scope:

This project consists of approximately 7,200 linear feet of 12-inch, 36-inch, 42-inch, 54-inch, and 60-inch wastewater mains. The project will construct a 60-inch, 54-inch, 42-inch, and 36-inch gravity main in the Central Sewershed along Avenue B from East Mulberry Avenue to north of Tuleta and a 12-inch gravity main along Broadway between East Mulberry Avenue and Pershing Avenue.

SAWS staff checked the limits of this project and determined that there is no overlap between the C_13, C_14, and C_33 projects.

Remarks:

Formerly called C-3 (C-2 to C-6). Construction 2012-16 at a total cost of \$38 million.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Line Collapse	SSO	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

<u>FUNDING INFORMATION</u>	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2009	2012
	\$0	\$1,200,000	\$8,000,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: LS 11 and LS 111 Elimination

Programmed Amount: \$219,340

Core Business Wastewater

Category: Collection R&R

Phase: Acquisition

Council District 9, 10



PROJECT INFORMATION

Project Objective: Construct sewer infrastructure to support growth in the Eastern Sewershed

Description and Scope:

This project will eliminate Lift Stations #11 (Feathercrest) & #111 (Stone Ridge) by constructing a 24-inch main from the existing location of Lift Station #11 to the proposed CIP project E-20. The 24 inch main is approximately 9,765 linear feet in length. This main will connect to an existing 36-inch gravity sewer main. The existing 36-inch sewer gravity main along Salado Creek that has been identified as undersized and will need to be replaced or paralleled as recommended in the 2008 CWWIP. This project is known as E-20 Salado Creek : Nacogdoches Rd. to Jones Maltsberger Rd. (formerly E_15 PBS&J, E_10 PBS&J, E_09 PBS&J, E_06 PBS&J, E_05A PBS&J).

Design in 2011 using unspecified contract. Acquire easements in 2012.

Remarks:

The lift station can be eliminated now, at minimal risk of surcharging the new mains. On the other hand, if we wait until E-20 is built to eliminate it (past 2020), we will most definitely experience multiple overflows at the station between now and then.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Capacity	SSO	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	9	729

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2012	2011	2013
	\$200,000	\$0	\$1,769,311



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Odor Control System Improvements Phase 2

Programmed Amount: \$548,350

Core Business Wastewater

Category: Collection R&R

Phase: Construction

Council District OCL



PROJECT INFORMATION

Project Objective: Mitigate unwanted odors in the collection system

Description and Scope:

The project entails design and construction of three (3) new Odor Control Injection sites to mitigate odors in the downstream wastewater collection system. Ferrous sulfate will be injected into the sewer line to prevent unwanted odors. After completion, all injection sites will operate efficiently and effectively, complying with all applicable standards and regulations.

If this project is not implemented, SAWS will be likely to have increased customer complaints.

Remarks:

The project is scheduled for design in the second and third quarter of 2011 with anticipated construction start date in the first quarter of 2012.
Design will be done in-house and using annual design services contracts.

Operating Impact:

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Unsustainable Equipment	Increased Maintenance	System Improvement	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	7	7	441

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0		2012
	\$0		\$500,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Sanitary Sewer Overflow Rehabilitation 2012

Programmed Amount: \$13,160,400

Core Business Wastewater

Category: Collection R&R

Phase: Construction

Council District System wide



PROJECT INFORMATION

Project Objective: Rehabilitate Pipelines that are experiencing Sanitary Sewer Overflows (SSO)

Description and Scope:

This project will assess and rehabilitate sanitary sewer pipelines that experience SSOs throughout the service area, and rehabilitate the pipelines using the appropriate method. This is a multiyear project with construction 2011-2020.

Remarks:

\$8 million per year through 2020.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Line Collapse	SSO	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0		2012
	\$0		\$12,000,000



**2012 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet**

**Wastewater
Corporate WW**



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Enterprise Resource Software System (ERSS) - Wastewater Share

Programmed Amount: \$1,151,535

Core Business Wastewater

Category: Corporate WW

Phase: Acquisition

Council District System wide



PROJECT INFORMATION

Project Objective: Improve operational efficiency.

Description and Scope:

This project implements an Enterprise Resource Software System (ERSS) that includes the following modules: Customer Service, Financial, Human Resources, Work Order, and permitting at the SAWS Headquarters. This work is required because the current legacy systems are not integrated and do not provide the functionality needed to run the business efficiently and effectively. The costs include software, hardware, professional services, capitalized payroll for in-house staff, and capitalized facility expenses.

Remarks:

The 2012 funding will complete the Customer Information System with an implementation date of May 2012, subject to the vendor delivering the product by October 2011.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Corporate Mandate	Failure of Corporate Initiative	Corporate Mandate	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2012		
	\$1,050,000		



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Service Center Facility Plan Project (Wastewater Share)

Programmed Amount: \$3,564,275

Core Business Wastewater

Category: Corporate WW

Phase: Design

Council District System wide

PROJECT INFORMATION

Project Objective: To develop a Service Center Master Plan through 2021

Description and Scope:

The purpose of this project is to program, design, locate and construct new Service Centers, Satellite Centers, and to make any required adjustments to the existing properties as a result of relocated staff. SAWS currently has mixed use at Service Centers by having Fleet, RPC, Customer Service, D&C, Lifts, and Production at shared service centers, which has compromised efficiencies and caused an increase of congestion on these sites. SAWS' infrastructure and customer growth has increased our crews' response time to the service call. Realignment would address these embedded inefficiencies in operations.

Remarks:

Based on previous Operations Research assessment, this project will improve D&C response time at all facilities and allow for a master planned realignment that increases efficiencies in production, RPC and customer service. This project will allow SAWS to meet current growth and proposed future growth to the system. Operating Impact: This project will reduce operating and maintenance costs.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Facilities	Environmental Impact	Corporate Mandate	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	8	9	648

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012
\$3,250,000

2013



**2012 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet**

**Wastewater
Governmental Sewer**



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Governmental Sewer Adjustments

Programmed Amount: \$5,922,180

Core Business: Wastewater

Category: Governmental Sewer

Phase: Construction

Council District: System wide



PROJECT INFORMATION

Project Objective: Realign Collection lines due to conflicts with other agencies work.

Description and Scope:

Governmental Program Adjustments consists of projects implemented in conjunction with other government entities, when they implement maintenance or capital improvement projects. Through this program, SAWS participates in the relocation and replacement of sewer facilities, when appropriate or required. Unspecified scope.

Remarks:

This is an annually recurring project.

Operating Impact: This project will have no significant impact on operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Service Interruption	Excessive Downtime	Conflict with City or State	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	10	810

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$5,400,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Governmental Sewer Installations

Programmed Amount: \$1,233,788

Core Business: Wastewater

Category: Governmental Sewer

Phase: Construction

Council District: System wide



PROJECT INFORMATION

Project Objective: Increase system capacity for future growth.

Description and Scope:

Governmental Program Installations is used to install new mains in conjunction and coordination with Master Plan projects. Unspecified scope.

Remarks:

This is an annually recurring project.

Operating Impact: This project will have no significant impact on operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Service Interruption	Service Interruption	Conflict with City or State	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	8	648

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$1,125,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Governmental Sewer Replacements

Programmed Amount: \$4,523,888

Core Business: Wastewater

Category: Governmental Sewer

Phase: Construction

Council District: System wide



PROJECT INFORMATION

Project Objective: Replace Collection lines due to condition by joint bidding with other agencies work.

Description and Scope:

Governmental Program Replacements consists of projects implemented in conjunction with other government entities, when they implement maintenance and/or capital improvement projects. Through this program, SAWS participates in the relocation and replacement of sewer facilities, when appropriate or required. Unspecified scope.

Remarks:

This is an annually recurring project.

Operating Impact: This project will have no significant impact on operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Service Interruption	Excessive Downtime	Conflict with City or State	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	8	10	720

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$10,125,000



**2012 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet**

**Wastewater
Main Replacement - Sewer**



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Main Replacements - Sewer - SAWS Crews

Programmed Amount: \$3,099,341

Core Business: Wastewater

Category: Main Replacement - Sewer

Phase: Construction

Council District: System wide



PROJECT INFORMATION

Project Objective: Rehabilitate aging/failing Collection infrastructure.

Description and Scope:

This project involved the emergency or high priority replacement of failing sewer mains in various parts of the city. The work is performed by SAWS Distribution and Collection Operations crews, as requirements arise. The project costs are capitalized.

Remarks:

This is an annually recurring project.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Repeated Line Breaks	SSO	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$2,826,061



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Open-Cut Sewer Pipe Replacement Contract

Programmed Amount: \$1,000,000

Core Business: Wastewater

Category: Main Replacement - Sewer

Phase: Construction

Council District: System wide



PROJECT INFORMATION

Project Objective: Replace aging/failing collection system infrastructure

Description and Scope:

Replace several thousand linear feet of various diameter sewer mains system-wide. Provides a mechanism to replace deteriorated small and medium diameter sewer mains quickly by conventional open-cut methods when rehabilitation by pipe-bursting or CIPP is not feasible. The replacement mains will range in size from 8-inches to 33-inches in diameter and will be sufficiently engineered to convey anticipated wastewater flows and maintain system integrity.

Remarks:

Projects will be tasked by work orders under this contract.

Operating Impact:

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Line Collapse	SSO	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	10	8	720

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0		2012
	\$0		\$911,826



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Pipe Bursting and CIPP Contract 2012

Programmed Amount: \$3,200,000

Core Business Wastewater

Category: Main Replacement - Sewer

Phase: Construction

Council District System wide



PROJECT INFORMATION

Project Objective: Rehabilitate aging/failing Collection infrastructure.

Description and Scope:

Rehabilitate several thousand linear feet of various diameter sewer mains systemwide. Provides a mechanism to rehabilitate deteriorated small and large diameter sewer mains that cannot be repaired using conventional open cut methods. The contracts allow either method to be used as appropriate for the street and pipe conditions.

Remarks:

This is an annually recurring project.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Line Collapse	SSO	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	10	8	720

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$2,917,844



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Sewer Laterals 2012

Programmed Amount: \$3,294,634

Core Business Wastewater

Category: Main Replacement - Sewer

Phase: Construction

Council District System wide

PROJECT INFORMATION

Project Objective: Rehabilitate aging/failing Collection infrastructure.

Description and Scope:

This is a project performed by SAWS Distribution and Collection Operations construction crews. The work involves replacment of failing sewer laterals to eliminate or reduce inflow and infiltration of storm water into wastewater mains. This project improves the operational efficiency and reduces the potential and risk of surcharges in the collection system.

Remarks:

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Line Collapse	SSO	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
8	8	10	640

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$3,004,134



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Unspecified Services Engineering Contract Sewer

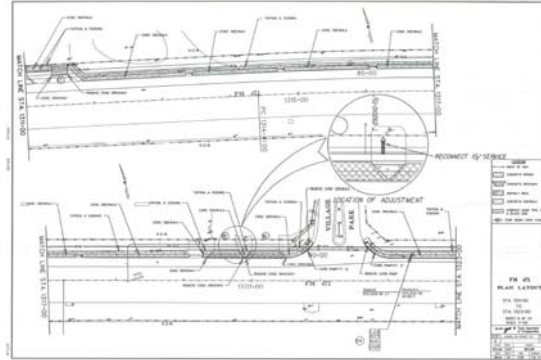
Programmed Amount: \$2,193,400

Core Business Wastewater

Category: Main Replacement - Sewer

Phase: Design

Council District System wide



PROJECT INFORMATION

Project Objective: Rehabilitate aging/failing Collection infrastructure.

Description and Scope:

This annual fund will fund design services to repair/replace sewer mains that have experienced cave-ins and overflows. These projects vary in size and location and may require the solicitation of contractor construction services on an urgent basis. These projects will be constructed on an emergency basis to correct unsanitary and potentially hazardous conditions that pose a threat to public health and safety.

Remarks:

This is an annually recurring project.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Facilities	Customer Disatisfaction	Other/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	9	729

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$2,000,000



**2012 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet**

**Wastewater
Treatment Growth**



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Dos Rios WRC Re-rating Phase II - Primary Settling Tanks Improvements

Programmed Amount: \$2,961,090

Core Business Wastewater

Category: Treatment Growth

Phase: Design

Council District 3



PROJECT INFORMATION

Project Objective: Expand and improve primary treatment facilities at the Dos Rios WRC.

Description and Scope:

The second phase of the re-rating of the Dos Rios Water Recycling Center from 125 mgd annual average daily flow (AADF) to 217 mgd AADF consists of improvements and modifications to the Primary Settling facilities. The improvements and modifications generally consist of adding four (4) new primary settling tanks, including primary sludge and scum pump stations to provide capacity for growth; constructing new 1st and 2nd primary settling tank distribution boxes for even flow splitting; modifying the existing primary settling tanks to improve operational efficiency and extend their useful life; and associated electrical and I&C work.

Remarks:

Construction scheduled for 2014.

Operating Impact: This project will increase operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Capacity	SSO	Undersized Equipment	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	10	810

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2012	2014
	\$0	\$2,700,000	\$30,000,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Leon Creek to Dos Rios Raw Wastewater Transfer Phase I

Programmed Amount: \$8,225,250

Core Business Wastewater

Category: Treatment Growth

Phase: Construction

Council District 3



PROJECT INFORMATION

Project Objective: Transfer flows from Leon Creek to Dos Rios

Description and Scope:

This project includes the construction of approximately 12,000 LF of 60" sewer line to transfer flows from the Leon Creek WRC Flow Equalization Basin (FEB) Diversion Structure to the Medina River Sewer Outfall. Modifications to the Leon Creek WRC FEB Diversion Structure will be required to accommodate the tie-in for this 60" line. Segment 2 of the Medina River Sewer Outfall project, which is scheduled for completion in 2012, includes a stub-out for this 60" line. This project will avoid the need for expansion of the Leon Creek WRC as it will provide a means to transfer peak flows from the Leon Creek WRC to the Dos Rios WRC. The project will require a detailed hydraulic evaluation of the Leon Creek WRC. The project will also include required permitting, surveying, and geotechnical engineering services along with field notes and easement exhibits and environmental and archaeological services for the proposed pipeline. See PSR for detailed scope.

Remarks:

This project must be coordinated with the design and construction phases of Medina Outfall.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:		Failure Impact:		Failure Root Cause:	
Inadequate Capacity		Enforcement Action		Undersized Equipment	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure		
10	10	10	1000		

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2010	2012
	\$0	\$325,000	\$7,500,000



**2012 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet**

**Wastewater
Treatment R&R**



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Dos Rios WRC Digester Mixing and System Enhancements - Phase 2

Programmed Amount: \$9,793,531

Core Business Wastewater

Category: Treatment R&R

Phase: Construction

Council District 3



PROJECT INFORMATION

Project Objective: Rehabilitate aging/failing treatment infrastructure and increase digestion capacity.

Description and Scope:

The design will address improvements to four existing digesters at the digester complex including the repair of dome roof seams, roof liner, dome hatches/man-ways, dome pressure/vacuum relief assemblies and three-way valves. The existing digester mixing system will be replaced. Enhancements of up to four existing digester gas meters will be made if necessary. The digester pumping and heat exchanger system will be rehabilitated or replaced.

Remarks:

Operating Impact: This project will increase operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Unsustainable Equipment	Increased Maintenance	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	8	9	648

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2011	2012
		\$940,000	\$8,930,000



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Salado Creek WRC Headworks Improvements

Programmed Amount: \$822,525

Core Business Wastewater

Category: Treatment R&R

Phase: Construction

Council District 3



PROJECT INFORMATION

Project Objective: Replace headworks equipment at the Salado Creek WRC

Description and Scope:

Replace headworks equipment at the Salado Creek WRC that has exceeded its useful life and is no longer operational. This will improve grit removal at the Salado Creek WRC, thereby decreasing grit settlement in the Salado Creek WRC Interconnect line. Replace the three (3) vortex grit units; rehabilitate or replace the two (2) grit washer / classifiers; and replace the coarse bubble diffusers in the Pre-aeration Tank. The vortex grit units are no longer effective at fluidizing the grit for removal by the recently replaced grit pumps (therefore those pumps are mainly pumping water). The grit washer / classifiers are functioning at a reduced efficiency, but they may be able to be rehabilitated instead of replaced. Most of the diffusers that were fixed to the floor of the Pre-aeration Tank were washed away over the years and are missing.

Remarks:

If grit removal at the Salado Creek WRC is not restored, the 90-inch Interconnect line and the siphons under the San Antonio River may eventually have enough of a reduced capacity to cause surcharging and back-ups at Salado. Removing the grit can reduce the probability of this event. D&C has been unable to clean the siphons using in-house equipment due to accessibility and would have to contract that work out if failure occurs, which would take more time.

Operating Impact:

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Equipment Failure	Increased Maintenance	Critical Equipment Failure	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	8	8	576

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:	DesignYear:	Construction Year
	2012	2012
	\$0	\$750,000



**2012 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet**

**Water Delivery
Corporate WD**



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Enterprise Resource Software System (ERSS) - Water Share

Programmed Amount: \$1,221,360

Core Business Water Delivery

Category: Corporate WD

Phase: Acquisition

Council District System wide



PROJECT INFORMATION

Project Objective: Improve operational efficiency.

Description and Scope:

This project implements an Enterprise Resource Software System (ERSS) that includes the following modules: Customer Service, Financial, Human Resources, Work Order, and permitting at the SAWS Headquarters. This work is required because the current legacy systems are not integrated and do not provide the functionality needed to run the business efficiently and effectively. The costs include software, hardware, professional services, capitalized payroll for in-house staff, and capitalized facility expenses.

Remarks:

The 2012 funding will complete the Customer Information System with an implementation date of May 2012, subject to the vendor delivering the product by October 2011.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Corporate Mandate	Failure of Corporate Initiative	Corporate Mandate	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2012		
	\$1,050,000		



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Service Center Facility Plan Project (Water Share)

Programmed Amount: \$3,780,400

Core Business Water Delivery

Category: Corporate WD

Phase: Design

Council District System wide

PROJECT INFORMATION

Project Objective: To develop a Service Center Master Plan through 2021

Description and Scope:

The purpose of this project is to program, design, locate and construct new Service Centers, Satellite Centers, and to make any required adjustments to the existing properties as a result of relocated staff. SAWS currently has mixed use at Service Centers by having Fleet, RPC, Customer Service, D&C, Lifts, and Production at shared service centers, which has compromised efficiencies and caused an increase of congestion on these sites. SAWS' infrastructure and customer growth has increased our crews' response time to the service call. Realignment would address these embedded inefficiencies in operations.

Remarks:

Based on previous Operations Research assessment, this project will improve D&C response time at all facilities and allow for a master planned realignment that increases efficiencies in production, RPC and customer service. This project will allow SAWS to meet current growth and proposed future growth to the system. Operating Impact: This project will reduce operating and maintenance costs.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Facilities	Environmental Impact	Corporate Mandate	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	8	9	648

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2012	2013
		\$3,250,000	



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

Water Delivery Distribution Growth



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Cross Mt Trail 24-inch Main

Programmed Amount: \$3,139,634

Core Business Water Delivery

Category: Distribution Growth

Phase: Construction

Council District OCL



PROJECT INFORMATION

Project Objective: Improve operational efficiency and increase system capacity for future growth.

Description and Scope:

The proposed 24-inch water main project connects the Shields Pump Station with the Winwood station, which is necessary to provide additional capacity to the aforementioned pump station and connects the current system. The new Cross Mountain Tank will provide additional capacity due to an existing 24-inch main installed for this purpose according to the Cielo Vista – 24” Oversize On-Site Water Main project (Job # 07-3014).

Remarks:

The service area is approaching TCEQ minimums for 2500 customers. This project will provide additional capacity.

Operating Impact:

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Capacity	Low Flow/Pressure	Undersized Lines	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	9	729

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2009	2010	2012
	\$25,000	\$269,914	\$2,699,135



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Culebra 30-Inch Main, Wind Gate Pkwy to Talley Rd (8-5)

Programmed Amount: \$29,080

Core Business Water Delivery

Category: Distribution Growth

Phase: Acquisition

Council District OCL



PROJECT INFORMATION

Project Objective: Improve operational efficiency and increase system capacity for future growth.

Description and Scope:

Install approximately 4,600 feet of 30 inch main along Culebra Road connecting to the existing 24-inch main at Talley Road the existing 30-inch main near Kallison Bend.

This project will close the Culebra Gap.

Remarks:

In order to stay in compliance with TCEQ regulations as development occurs, a connection is required between the Package Plant and Pressure Zone 8.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Capacity	Low Flow/Pressure	Undersized Lines	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
8	8	8	512

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2012	2015	2016
	\$25,000	\$207,104	\$2,071,040



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Dominion Fire Flow Improvement

Programmed Amount: \$290,800

Core Business Water Delivery

Category: Distribution Growth

Phase: Acquisition

Council District 8



PROJECT INFORMATION

Project Objective: Increase system fire flow capacity.

Description and Scope:

Project installs 1,750 linear feet of 8-inch water main. Along Galleria from Devonwood and Galleria to the end of Galleria (Included in 2008 WIP as 8-inch, recommending it be changed to a 12-inch for fire protection) (PZ11B-01) \$234,197.00

Project installs 650 linear feet of 8-inch water main. Along Devonwood from Dominion Pump Station south to the end of Devonwood (PZ11B-02) \$57,992.00

Project installs 275 linear feet of 8-inch water main. Through an easement, from Vineyard Dr. to an existing 8-inch main along Admirals Way (PZ11B-03) \$24,535.00

Project installs 2,350 linear feet of 8-inch water main. Along Galleria, Courtenay Lane, an easement and Carriage Hills from Devonwood to the end of Carriage Hills (PZ11B-04) \$209,662.00

Remarks:

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Flow/Pressure Problems	Jeopardize Life/Safety	Undersized Lines	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
2	2	2	8

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2012	2011	2013
	\$250,000	\$0	\$1,600,000



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Hidden Springs Fire Flow Improvement

Programmed Amount: \$3,066,195

Core Business Water Delivery

Category: Distribution Growth

Phase: Construction

Council District 8



PROJECT INFORMATION

Project Objective: Increase system fire flow capacity.

Description and Scope:

Project installs 870 linear feet of 16-inch water main along Aue Rd. from existing 16-inch main to proposed 12-inch main near the intersection on Aue Rd. and Whistling Wind. (PZ11-17) \$147,526.00

Project installs 1,700 linear feet of 12-inch water main. Along Aue Rd. from proposed 16-inch main to proposed Rocky Hill Booster Station. (PZ11-18) \$227,506.00

Project installs 2,300 linear feet of 12-inch water main. From intersection of Aue Rd. and Whistling Wind along Whistling Wind, Black Creek and easement to proposed Rocky Hill Booster Station. (PZ11-19) \$307,802.00

Project installs 1,200 linear feet of 8-inch water main. From the intersection of Black Creek and Whistling Wind along Whistling Wind (PZ11-20) \$107,062.00

Project installs 930 linear feet of 12-inch water main. Along Rocky Hill from the proposed Rocky Hill Booster

Remarks:

Hidden Springs Estates has their own water supply system based on Trinity Aquifer wells. SAWS recently became the owner of this system. In order to provide water service consistent with that provided to the rest of SAWS customers it is necessary to remove this neighborhood's dependence upon Trinity wells and instead connect it to the nearby SAWS infrastructure. In addition to fully incorporating this neighborhood into SAWS system, this construction will make it possible for better supply of water in the area (including possible future interconnection with Dominion).

Operating Impact: This project will increase operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Flow/Pressure Problems	Jeopardize Life/Safety	Undersized Lines	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	9	729

<u>FUNDING INFORMATION</u>	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2011	2012
	\$0	\$0	\$2,636,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Water Main Oversizing 2012

Programmed Amount: \$1,163,200

Core Business Water Delivery

Category: Distribution Growth

Phase: Construction

Council District System wide



PROJECT INFORMATION

Project Objective: Oversize water distribution system for future growth.

Description and Scope:

Pay for SAWS proportionate share of the cost of mains which are necessary to serve anticipated growth but are larger than the size main required by a developer customer or single customer. This annual requirement provides funds to oversize various water main installations throughout the service area. Unspecified scope.

Remarks:

Operating Impact: This project will have no significant impact on operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Capacity	Low Flow/Pressure	Undersized Lines	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
5	8	10	400

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$1,000,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

Water Delivery Governmental Water



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Governmental Water Adjustments

Programmed Amount: \$5,920,325

Core Business Water Delivery

Category: Governmental Water

Phase: Construction

Council District System wide



PROJECT INFORMATION

Project Objective: Realign water lines due to conflicts with other agencies work.

Description and Scope:

Governmental Program Adjustments consists of projects implemented in conjunction with other government entities, when they implement maintenance and/or capital improvement projects. Through this program, SAWS participates in the relocation and replacement of water facilities, when appropriate or required. Unspecified scope.

Remarks:

This is an annually recurring project.

Operating Impact: This project will have no significant impact on operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Service Interruption	Excessive Downtime	Conflict with City or State	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	10	810

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$5,089,688



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Governmental Water Installations

Programmed Amount: \$679,382

Core Business: Water Delivery

Category: Governmental Water

Phase: Construction

Council District: System wide



PROJECT INFORMATION

Project Objective: Increase system capacity for future growth.

Description and Scope:

Governmental Program Installations is used to install new mains in conjunction and coordination with Master Plan projects. Unspecified scope.

Remarks:

This is an annually recurring project.

Operating Impact: This project will have no significant impact on operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Service Interruption	Service Interruption	Conflict with City or State	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	9	8	648

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$584,063



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Governmental Water Replacements

Programmed Amount: \$8,929,014

Core Business Water Delivery

Category: Governmental Water

Phase: Construction

Council District System wide



PROJECT INFORMATION

Project Objective: Replace aging/failing Distribution infrastructure.

Description and Scope:

Governmental Program Replacements consists of projects implemented in conjunction with other government entities, when they implement maintenance and/or capital improvement projects. Through this program, SAWS participates in the relocation and replacement of water facilities, when appropriate or required. Unspecified scope.

Remarks:

This is an annually recurring project.

Operating Impact: This project will have no significant impact on operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Service Interruption	Service Interruption	Conflict with City or State	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	8	10	720

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$7,676,250



**2012 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet**

**Water Delivery
Main Replacement - Water**



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Brooks City Base Waterline Improvements Phase II

Programmed Amount: \$1,395,840

Core Business Water Delivery

Category: Main Replacement - Water

Phase: Construction

Council District 3



PROJECT INFORMATION

Project Objective: Rehabilitate aging/failing Collection infrastructure.

Description and Scope:

This project will replace the 6 and 8-inch existing water mains with 12-inch and 16-inch mains. Approximately 11,550 LF of main will be constructed under an EPA grant on the Brooks City Base facility. This project will utilize the remaining funds from the Brooks grant. The professional services will be funded under a current unspecified design contract.

Remarks:

Project will replace undersized mains, and provide interconnected mains by eliminating dead end mains. This project will also provide improved hydraulic conditions for fire flow conditions with installation of larger mains.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Repeated Line Breaks	Low Flow/Pressure	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
7	8	5	280

FUNDING INFORMATION

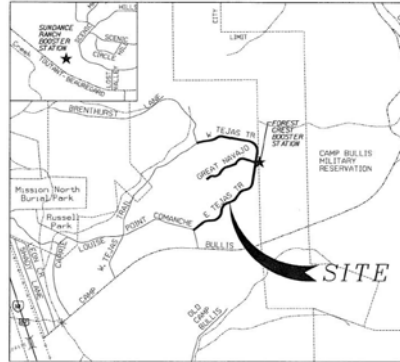
	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.		2011	2012
		\$0	\$1,200,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Forest Crest Water Main
Programmed Amount: \$1,395,840
Core Business Water Delivery
Category: Main Replacement - Water
Phase: Construction
Council District 8



PROJECT INFORMATION

Project Objective: Fulfill local benefit obligation.

Description and Scope:

This local benefit project will connect the Forest Crest subdivision to SAWS water system. The project will install approximately 6,200 linear feet of 12-inch water main along West and East Tejas Trail and Great Navajo Trail. The existing Forest Crest inline booster station will be relocated. The project will also install 32 water service lines, and include trench restoration for installation in pavement.

Remarks:

Operating Impact: This project will increase operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Repeated Line Breaks	Low Flow/Pressure	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
8	8	8	512

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$1,200,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Main Replacements - Water - SAWS Crews

Programmed Amount: \$11,632

Core Business Water Delivery

Category: Main Replacement - Water

Phase: Construction

Council District System wide



PROJECT INFORMATION

Project Objective: Rehabilitate aging/failing Distribution infrastructure.

Description and Scope:

CIP funds transferred to Distribution and Collection Operations for the replacement of failing water mains, emergencies or otherwise, in various parts of the city. The work is performed by in-house construction crews. Unspecified scope.

Remarks:

This is an annually recurring project.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Repeated Line Breaks	Increased Maintenance	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	8	10	720

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$10,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Meter Replacements

Programmed Amount: \$3,482,324

Core Business Water Delivery

Category: Main Replacement - Water

Phase: Construction

Council District System wide



PROJECT INFORMATION

Project Objective: Replace aging water meters

Description and Scope:

This project will replace aging water meters in a defined geographical area, reducing the amount of unaccounted for water. The old water meters tend to slow down, especially at low flow rates, and underrecord the amount of water used. New water meters will accurately record water usage and increase revenues. The plan is to replace 35,000+ meters in various routes in all districts.

Remarks:

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:
Corporate Mandate	Failure of Corporate Initiative	Corporate Mandate
Impact Severity	Likelihood of Occurrence	Risk Mitigation
10	10	10
		Risk Exposure
		1000

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	0	2012
	\$0	\$0	\$2,993,745



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Open Cut Water Contract
Programmed Amount: \$1,163,200
Core Business Water Delivery
Category: Main Replacement - Water
Phase: Construction
Council District System wide



PROJECT INFORMATION

Project Objective: Replace several thousand feet of various diameter water mains system wide.

Description and Scope:

Replace several thousand feet of various diameter water mains system wide.

Remarks:

Operating Impact:

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Line Collapse	Low Flow/Pressure	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	8	10	720

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	0	2012
	\$0	\$0	\$1,000,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Valves, Services and Meters

Programmed Amount: \$3,892,234

Core Business Water Delivery

Category: Main Replacement - Water

Phase: Construction

Council District System wide



PROJECT INFORMATION

Project Objective: Replace obsolete or unsustainable Distribution systems or equipment.

Description and Scope:

This project provides for the installation or replacement of unserviceable valves, services, meters, fire hydrants, and other water system appurtenances. The work is performed by SAWS Distribution and Collection Operations crews, as requirements arise. The project costs are capitalized.

Remarks:

This is an annually recurring project.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Unsustainable Equipment	Service Interruption	Critical Equipment Failure	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
8	9	8	576

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$3,346,143



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

Water Delivery Production Growth



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Cibolo Tank and 24" Main (PZ10)

Programmed Amount: \$5,234,400

Core Business Water Delivery

Category: Production Growth

Phase: Construction

Council District OCL



PROJECT INFORMATION

Project Objective: Additional water storage for Pressure Zone 10

Description and Scope:

This project constructs a 2.5 MG elevated storage tank, per the 2008 Water Master Plan, with an overflow elevation of 1258 msl to provide storage for developments in the east part of Pressure Zone 10. The project will also install approximately 3,300 linear feet of 24" water main from the existing 16" main along TPC Parkway to the Cibolo Tank site.

Remarks:

Operating Impact: This project will have no significant impact on operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Storage	Low Flow/Pressure	System Optimization	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
8	7	8	448

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2009		2012
	\$300,000		\$4,500,000



**2012 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet**

**Water Delivery
Production R&R**



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Chlorine System Upgrades

Programmed Amount: \$5,816,000

Core Business: Water Delivery

Category: Production R&R

Phase: Construction

Council District: System wide



PROJECT INFORMATION

Project Objective: Improve safety of chlorine systems at primary pump stations.

Description and Scope:

The purpose of the chlorine upgrade project is to provide scales for chlorine containers for facilities which do not currently have scales and are not planned for upgrade in the next several years. The project will also provide scrubbers or other type of secondary containment at our primary pump station chlorine buildings to minimize the risk to the public in case of an accidental release of chlorine from one of these sites. The project will include the following 8 pump stations: 34th Street, Artesia, Maltsberger, Marbach, Micron, Randolph, Seale and Wurzbach.

Remarks:

Operating Impact:

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Regulatory Compliance	Jeopardize Life/Safety	System Improvement	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
10	10	10	1000

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2011	2012
	\$0	\$0	\$5,000,000



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Replace Loma Linda Tank with Richland Hills Tank

Programmed Amount: \$465,280

Core Business Water Delivery

Category: Production R&R

Phase: Acquisition

Council District 1, 6



PROJECT INFORMATION

Project Objective: Demolish old tank and construct new tank close to Marbach PS

Description and Scope:

Project consists of the demolition of the existing 1.5 MG Loma Linda EST located on Loma Linda Drive and the construction of a new 1.5 MG elevated storage tank located close to Marbach PS.

Remarks:

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Storage	Customer Disatisfaction	Undersized Equipment	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
7	6	6	252

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2012	2011	2016
	\$400,000	\$350,000	\$4,000,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: University PS Improvements

Programmed Amount: \$407,120

Core Business Water Delivery

Category: Production R&R

Phase: Design

Council District 8



PROJECT INFORMATION

Project Objective: Increase system capacity for future growth.

Description and Scope:

Per 2008 Water Infrastructure Plan, add one 10 mgd pump for PZ 8 at University Pump Station with electrical and controls.

Remarks:

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Capacity	Low Flow/Pressure	Undersized Equipment	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
8	8	8	512

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2012	2014
	\$0	\$350,000	\$3,500,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Water Production Facility Upgrades Program Phase 4a – Basin

Programmed Amount: \$552,520

Core Business Water Delivery

Category: Production R&R

Phase: Design

Council District 1



PROJECT INFORMATION

Project Objective: Multi-year program to rehabilitate Primary and Booster water production pump stations.

Description and Scope:

Phase IVa of multi-year program to rehabilitate Primary and Booster water production pump stations. Project will rehabilitate aging, obsolete and unserviceable equipment and components, including the upgrade of chlorination facilities at the primary stations to bring them into compliance with current Fire Codes, as well as OSHA, TCEQ and AWWA standards and requirements.

Remarks:

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Unsustainable Equipment	Low Flow/Pressure	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	8	9	648

<u>FUNDING INFORMATION</u>	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2012	2014
	\$0	\$475,000	\$4,750,000



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Water Production Facility Upgrades Program Phase 8 - Nacogdoches

Programmed Amount: \$1,512,160

Core Business Water Delivery

Category: Production R&R

Phase: Design

Council District 10



PROJECT INFORMATION

Project Objective: Multi-year program to rehabilitate Primary and Booster water production pump stations.

Description and Scope:

Phase 8 of multi-year program to rehabilitate Primary and Booster water production pump stations. Project will rehabilitate aging, obsolete and unserviceable equipment and components, including the upgrade of chlorination facilities at the primary stations to bring them into compliance with current Fire Codes, as well as OSHA, TCEQ and AWWA standards and requirements.

Project includes the replacement of all electrical switchgear, chlorination and fluoridation equipment, miscellaneous valves, piping and other items.

Project also includes the installation of a new 7.5 mgd ground storage tank and two (2) additional high service pumps to prevent the elevated tanks in PZ 9 from draining too quickly.

Remarks:

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Unsustainable Equipment	Low Flow/Pressure	Age/Deterioration	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
9	8	9	648

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2012	2013
	\$0	\$1,300,000	\$13,000,000



**2012 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet**

**Water Supply
Edwards Aquifer**



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Edwards Aquifer Acquisitions Contract Advisory Services

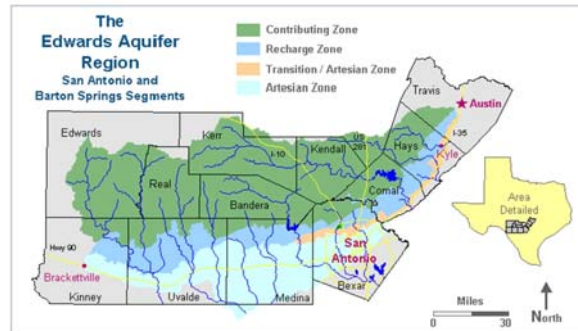
Programmed Amount: \$75,563

Core Business Water Supply

Category: Edwards Aquifer

Phase: Acquisition

Council District System wide



PROJECT INFORMATION

Project Objective: Increase Edwards Aquifer Supply.

Description and Scope:

Legal assistance to support the acquisition of Edwards Aquifer groundwater rights through agricultural conservation and purchases of authorized withdrawal permits.

Remarks:

Increase non-Edwards Aquifer supplies in accordance with goals outlined in 50-year water resource plan

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
None	Failure of Corporate Initiative	System Optimization	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

2011
\$75,000

DesignYear:

Construction Year

2011



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Edwards Aquifer Acquisitions Groundwater Rights Purchase

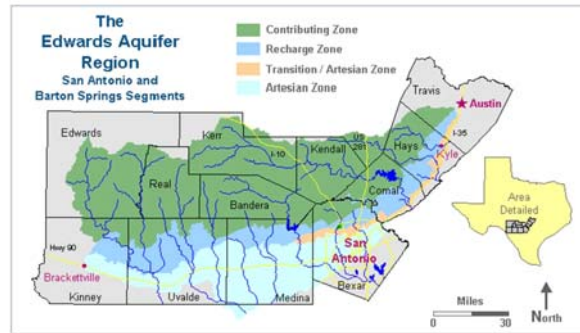
Programmed Amount: \$9,571,250

Core Business Water Supply

Category: Edwards Aquifer

Phase: Acquisition

Council District System wide



PROJECT INFORMATION

Project Objective: Increase Edwards Aquifer Supply.

Description and Scope:

Acquire Edwards Aquifer groundwater rights through agricultural conservation and purchases of authorized withdrawal permits.

Remarks:

Increase non-Edwards Aquifer supplies in accordance with goals outlined in 50-year water resource plan

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
None	Failure of Corporate Initiative	System Optimization	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

2012
\$9,500,000

DesignYear:

Construction Year

2011



**2012 CAPITAL IMPROVEMENTS PROGRAM
Project Data Sheet**

**Water Supply
Recycled Water**



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Brooks Recycled Water Pump Station Upgrade

Programmed Amount: \$284,600

Core Business Water Supply

Category: Recycled Water

Phase: Construction

Council District 3



PROJECT INFORMATION

Project Objective: Upgrades to RW Pump Station at Brooks City Base

Description and Scope:

Brooks Pump station currently feeds the Riverside golf course and will soon provide for the development at the San Jose site which is situated near the Riverside golf course. These two sites are fed through a long dead end system (approximately 16,000 feet of 8-inch and 12-inch recycle main).

In order to maintain a consistent pressure the Brooks Pump station pumping system cycles on and off too often and due to the length of the main, is prone to surges. The need for mitigating the surges and maintaining a consistent pressure can be addressed by a hydropneumatic/surge tank. This project includes the construction of a 7,500 gallon hydropneumatic/surge tank at the Brooks Recycle Water Pump Station. Additionally, with the addition of the hydropneumatic/surge tank the controls at the Pump station will require replacement.

Remarks:

This project is being programmed to coincide with completion of San Jose Recycled Water Pump Station and Ground Storage Tank Project (by August 31, 2013).

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Equipment Failure	Low Flow/Pressure	System Improvement	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure
8	8	8	512

FUNDING INFORMATION

	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2011	2012
	\$0	\$50,000	\$250,000



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Convention Center Recycled Water Outfall Safety Upgrade

Programmed Amount: \$45,536

Core Business Water Supply

Category: Recycled Water

Phase: Construction

Council District 1



PROJECT INFORMATION

Project Objective: Safety enhancements to Convention Center RW Outfall

Description and Scope:

One of SAWS' recycled water outfalls to the San Antonio River is located adjacent to the Heating & Cooling Plant across from the Convention Center. The ventilation system for the sodium bisulfite storage room is insufficient and needs to be redesigned to ensure the environment is safe for employees to work in. A heating system needs to be added to prevent the chemical feed lines from freezing. Due to the gases from the sodium bisulfite not being properly evacuated from the room, the structural beams, roof panels, and entrance doors are corroding and need to be blasted and coated. Stairs over the recycled water line need to be added to facilitate access to the chemical feed area. The overhead door needs to be inspected for corrosion damage, and the condition of the exterior roof needs to be evaluated and repairs made to prevent leaks.

Remarks:

HVAC design to be performed using an existing unspecified services contract.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode: Inadequate Facilities	Failure Impact: Jeopardize Life/Safety	Failure Root Cause: Failed System Component	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure

<u>FUNDING INFORMATION</u>	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0 \$0	2012 \$40,000	2013 \$200,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Recycle Customer Lines
Programmed Amount: \$1,138,400
Core Business Water Supply
Category: Recycled Water
Phase: Construction
Council District System wide



PROJECT INFORMATION

Project Objective: Increase use of Recycled Water
Description and Scope:
 Economic incentives provided to encourage greater use of recycled water.

Remarks:

Operating Impact: This project will have no significant impact on operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode: None	Failure Impact: Failure of Corporate Initiative	Failure Root Cause: System Optimization	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure

FUNDING INFORMATION

LandYear:	DesignYear:	Construction Year
		2012
Amounts shown are estimated costs without SAWS overhead.		\$1,000,000



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: San Jose Recycled Water Pump Station and Ground Storage Tank

Programmed Amount: \$796,880

Core Business Water Supply

Category: Recycled Water

Phase: Construction

Council District 3



PROJECT INFORMATION

Project Objective: Build RW Pump Station and Ground Storage Tank

Description and Scope:

Construct a 300,000 gallon ground storage tank and recycled water booster pump station at Riverside near VFW Blvd to supply recycled water to Mission County Park, the City's Mission Library and associated development, and the National Park Service at Mission San Jose. SAWS Job No. 10-8622-202 includes construction of a recycled water line extension under the San Antonio River from the existing recycled water line on Riverside Dr to Mission County Park. This separate project will provide the infrastructure to support recycled water service to the three customers at the Mission Park Redevelopment Area. Per Master Planning modeling efforts, the recycled water line to Riverside Golf Course does not have sufficient pressure (or capacity) to supply the Mission Park Redevelopment Area and the Golf Course. This tank will address the capacity issue, and the booster pumps will address the pressure issue.

Remarks:

This project is being programmed to coincide with completion of SARA's San Antonio River Improvements Project (by August 31, 2013). Construction needs to begin in 2012 to meet that schedule. Recycle Operations is securing contracts with the three customers. This has a high level of PR.

Operating Impact: This project will have no significant impact on operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
Inadequate Capacity	Low Flow/Pressure	System Improvement	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure

<u>FUNDING INFORMATION</u>	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	0	2011	2012
	\$0	\$75,000	\$700,000



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: University Health System Recycle Main Installation

Programmed Amount: \$1,366,080

Core Business Water Supply

Category: Recycled Water

Phase: Construction

Council District 8



PROJECT INFORMATION

Project Objective: Increase use of Recycled Water

Description and Scope:

This project will install approximately 4,000 feet of 12-inch recycle main for the University Health System from an existing main within the Floyd Curl ROW to a connection point within the Merton Minter ROW. The San Antonio Water System has executed a Recycled Water Service Agreement with Bexar County Hospital District d/b/a University Health System. The recycle water shall be used for make-up water associated with the Central Utility Plant, including blow down and windage losses and on-site irrigation of trees, plantings, ground cover, turf, living walls and roof gardens.

Remarks:

The design will be prepared in 2011 and the construction will occur in 2012.

Operating Impact:

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode: None	Failure Impact: Failure of Corporate Initiative	Failure Root Cause: System Optimization	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure

FUNDING INFORMATION

LandYear:	DesignYear:	Construction Year
	2011	2012
Amounts shown are estimated costs without SAWS overhead.		\$1,200,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

Water Supply Water Resources



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Desalination: Constructability Review

Programmed Amount: \$560,450

Core Business Water Supply

Category: Water Resources

Phase: Design

Council District System wide



PROJECT INFORMATION

Project Objective: Obtain constructability review of the design work produced by the Program Manager on t

Description and Scope:

The Scope of Work will include the review of designs for each component of the Brackish Groundwater Desalination Program. Review will be coordinated with each of the design engineers under the Brackish Groundwater Desalination Program Manager

Remarks:

Increase non-Edwards Aquifer supplies in accordance with goals outlined in 50-year water resource plan.

Operating Impact: This project will increase operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode:	Failure Impact:	Failure Root Cause:	
None	Failure of Corporate Initiative	System Optimization	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$500,000



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Desalination: Construction Manager at Risk (General and Pre-Construction Services)

Programmed Amount: \$1,120,900

Core Business Water Supply

Category: Water Resources

Phase: Construction

Council District System wide



PROJECT INFORMATION

Project Objective: Obtain constructability review of the design work produced by the Program Manager

Description and Scope:

The Scope of Work will include construction input and review of the design work on each component of the Brackish Groundwater Desalination Program.

Remarks:

Increase non-Edwards Aquifer supplies in accordance with goals outlined in 50-year water resource plan.

Operating Impact: This project will increase operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode: None	Failure Impact: Failure of Corporate Initiative	Failure Root Cause: System Optimization	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

DesignYear:

Construction Year

2012

\$1,000,000



2012 CAPITAL IMPROVEMENTS PROGRAM

Project Data Sheet

PROJECT DESCRIPTION

Project: Desalination: Land Acquisition (Production Well Field)

Programmed Amount: \$1,681,350

Core Business Water Supply

Category: Water Resources

Phase: Acquisition

Council District System wide



PROJECT INFORMATION

Project Objective: Increase available water supply.

Description and Scope:

Acquire additional property required for the development of the production well field and conveyance pipeline to support the Brackish Groundwater Desalination Project. Based on the groundwater modeling, brackish production wells will need to be spaced approximately 4,000 feet apart in order to minimize interference between wells.

Remarks:

Increase non-Edwards Aquifer supplies in accordance with goals outlined in 50-year water resource plan.

Operating Impact: This project will increase operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

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

FUNDING INFORMATION

Amounts shown are estimated costs without SAWS overhead.

LandYear:

2012
\$1,500,000

DesignYear:

Construction Year



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Desalination: Legal
Programmed Amount: \$168,135
Core Business Water Supply
Category: Water Resources
Phase: Acquisition
Council District System wide

PROJECT INFORMATION

Project Objective: Increase available water supply.
Description and Scope:
 The legal services required are associated with land purchase, easement acquisition, acquisition of groundwater rights, and development of an alternative procurement service contract for the desalination project.

Remarks:
 Increase non-Edwards Aquifer supplies in accordance with goals outlined in 50-year water resource plan.

Operating Impact: This project will increase operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

Failure Mode: None	Failure Impact: Failure of Corporate Initiative	Failure Root Cause: System Optimization	
Impact Severity	Likelihood of Occurrence	Risk Mitigation	Risk Exposure

<u>FUNDING INFORMATION</u>	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2012 \$150,000	0 \$0	



2012 CAPITAL IMPROVEMENTS PROGRAM Project Data Sheet

PROJECT DESCRIPTION

Project: Integration: Land Acquisition

Programmed Amount: \$5,604,500

Core Business Water Supply

Category: Water Resources

Phase: Acquisition

Council District System wide



PROJECT INFORMATION

Project Objective: Increase available water supply.

Description and Scope:

Acquisition of easements for pipeline Right-of-Way and permanent property purchases for facilities to integrate water treated at the ASR facility with the western portion of the SAWS service area.

Remarks:

Increase non-Edwards Aquifer supplies in accordance with goals outlined in the 50-year water resource plan.

Operating Impact: This project will reduce operating and maintenance costs.

FAILURE ANALYSIS AND RISK RATINGS

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

<u>FUNDING INFORMATION</u>	LandYear:	DesignYear:	Construction Year
Amounts shown are estimated costs without SAWS overhead.	2012	0	0
	\$5,000,000	\$0	\$0