

# Texas Water Development Board



City of San Saba

**DWSRF GREEN PROJECT RESERVE BUSINESS CASE EVALUATION**

**STATE FISCAL YEAR 2014 INTENDED USE PLAN**

**PROJECT NUMBER 62606**

COMMITMENT DATE: December 5, 2013

DATE OF LOAN CLOSING: June 24, 2014

GREEN ESTIMATE AT CLOSING: \$297,921

Subsidy awarded for Green components, (if any): \$44,307

September 16, 2013

Mr. Stan Weik  
City of San Saba  
P.O. Box 788  
San Saba, TX 76877

**Re: SFY 2014 Drinking Water State Revolving Fund  
Funding Determination Letter Project #62606**

Dear Mr. Weik:

The Texas Water Development Board received a financial application and green project worksheets on August 19, 2013, for the City of San Saba (City) for project #10148. Based on a review of the information provided, and the current funds available in the Drinking Water State Revolving Fund (DWSRF) program, the City's project is being offered \$297,921 through the following funding:

- Disadvantaged Communities Funding – 30% loan forgiveness (\$88,614)
- Mainstream Loan – approximately \$165,000 (Note: This amount will be associated with a 2.25% loan origination fee.)
- Green Subsidy – After reviewing the Green Project Information Worksheets submitted with the application, TWDB staff determined the City exceeds the 30% green cost threshold to receive loan forgiveness for up to 15% of the green component costs; therefore, the City is eligible to receive \$44,307 in loan forgiveness, based on the following:
  - The City's Green Project Information Worksheets received August 19, 2013 requested that \$300,000 of the City's total project cost of \$300,000 be considered eligible for the DWSRF Green Project Reserve (GPR). The general element(s) described include the replacement of approximately 26,000 linear feet of water distribution line to address water loss and line breaks.
  - The Environmental Protection Agency's (EPA's) *Green Project Reserve Guidance for Determining Project Eligibility* (TWDB-0161) lists distribution pipe replacement or rehabilitation to reduce water loss and prevent water main breaks as business case eligible for the GPR (Part B, 2.5-2), Water Efficiency.
  - Information presented on the Green Project Information Worksheets and attachments previously submitted with the Project Information Form provided sufficient information to confirm the eligibility of the proposed improvements for the GPR in accordance with TWDB-0161 Part B, 2.5-2.

**Our Mission**

To provide leadership, planning, financial assistance, information, and education for the conservation and responsible development of water for Texas

**Board Members**

Carlos Rubinstein, Chairman | Bech Bruun, Member | Mary Ann Williamson, Member

Robert E. Mace, Ph.D., P.G., Interim Executive Administrator

- Therefore, at this time the TWDB considers project costs associated with the Water System Improvements project in the amount of \$295,379 to be eligible for the DWSRF GPR. This includes estimated construction and applicable soft costs for the items.
- Please note that the City's application for financial assistance must be consistent with the project scope presented on the Green Project Information Worksheets. Inclusion of the green elements within the project will be verified prior to Board commitment. If the project scope or budget related to the approved green components changes during application review, the City should update and resubmit the Green Project Information Worksheets as necessary.

Based on this determination, some sections of the financial application must be changed. TWDB staff will notify you of the necessary changes in a subsequent letter. Please respond in a timely manner to requests for information. Delays in responding may affect this determination and could result in loss of subsidy. If the City does not wish to continue pursuing financial assistance through the DWSRF program, please notify Marvin Chaney, (512) 463-8750 or via email at [marvin.chaney@twdb.texas.gov](mailto:marvin.chaney@twdb.texas.gov), or your assigned financial advisor within the next 14 calendar days.

The TWDB appreciates the City of San Saba's interest in the DWSRF.

Sincerely,



Stacy L. Barna  
Director of Program Development  
Program and Policy Development

SB:rf

# Green Project Reserve

---

## Green Project Information Worksheets

**Drinking Water State Revolving Fund**

**Intended Use Plan**

The Federal Appropriation Law for the current fiscal year Clean Water and Drinking Water State Revolving Fund programs contains the Green Project Reserve (GPR) requirement. The following Green Project Information Worksheets have been developed to assist TWDB Staff in verifying eligibility of potential GPR projects.

**TEXAS WATER DEVELOPMENT BOARD  
DRINKING WATER STATE REVOLVING FUND (DWSRF)  
GREEN PROJECT INFORMATION WORKSHEETS**

**PART I – GREEN PROJECT INFORMATION SUMMARY**

Check all that apply and complete applicable worksheets:

**Categorically Eligible**

- Green Infrastructure \$ \_\_\_\_\_
- Water Efficiency \$ \_\_\_\_\_
- Energy Efficiency \$ \_\_\_\_\_
- Environmentally Innovative \$ \_\_\_\_\_

**Business Case Eligible**

- Green Infrastructure \$ \_\_\_\_\_
- Water Efficiency \$ 300,000
- Energy Efficiency \$ \_\_\_\_\_
- Environmentally Innovative \$ \_\_\_\_\_

Total Requested Green Amount \$300,000 \_\_\_\_\_

Total Requested Funding Amount \$300,000 \_\_\_\_\_

**Type of Funding Requested:**

- PAD (Planning, Acquisition, Design)
- C (Construction)

Completed by:

Name: Cory Higgins

Title: EIT

Signature: 

Date: 8/8/13

**TEXAS WATER DEVELOPMENT BOARD  
DRINKING WATER STATE REVOLVING FUND (DWSRF)  
GREEN PROJECT INFORMATION WORKSHEETS**

**PART III - BUSINESS CASE ELIGIBLE**

Complete this worksheet for projects being considered for the Green Project Reserve (GPR) as business case eligible. Business case eligible projects or project components are described in the following sections of the EPA GPR guidance (TWDB-0161):

Green Infrastructure	Part B, Section 1.4
Water Efficiency	Part B, Section 2.4 and 2.5
Energy Efficiency	Part B, Section 3.4 and 3.5
Environmentally Innovative	Part B, Section 4.4 and 4.5

Information provided on this worksheet should be of sufficient detail and should clearly demonstrate that the proposed improvements are consistent with EPA and TWDB GPR guidance for business case eligible projects. Refer to **Information on Completing Worksheets** for additional information.

**Section 1 – General Project Information**

Applicant: City of San Saba PIF #: \_\_\_\_\_

Project Name: Water System Improvements

Contact Name: Allen Phillips

Contact Phone and e-mail: 325-695-1070 aPhillips@jacobmartin.com

Total Project Cost: \$300,000.00 Green Amount: \$300,000.00  
(Business Case Eligible)

**Brief Overall Project Description:**

The City of San Saba experiences significant water loss in the distribution system due to the number of 70 year old water lines that have leaks. The purpose of this project is to replace aging waterlines within the City to reduce water loss. Many of the existing lines are cast iron pipe and breaks and leaks are frequent. The project will consist of installing approximately 16,000 LF of 6" waterline and 5,000 LF of 8" waterline to replace aging existing lines. This will help combat water loss and improve efficiency. Also, within the constraints of the project, the City proposes to have the option to replace any additional waterlines and appurtenances which require improvement.

### Section 3 – Water Efficiency

Certain water efficiency improvements may be considered business case eligible for the GPR. Refer to EPA and TWDB GPR guidance for a complete list and description of business case eligible GPR Projects. For all water efficiency business case eligible projects Section 3.1 must be completed. A common water efficiency project that may be considered business case eligible is water line replacements to address water loss. For this type of project complete Section 3.2 of the worksheet. For any other water efficiency improvement being considered for business case eligibility, complete Section 3.3.

#### Section 3.1 - System and Water Loss Information

Section 3.1 is required for all water efficiency business case eligible projects. Attach a copy of most recent Water Audit, if available. Otherwise, complete and attach Water Audit Worksheet or provide water audit data in a similar format. Additional information on water loss and water audits as well as a copy of the Water Audit Worksheet is available at:

[http://www.twdb.state.tx.us/assistance/conservation/Municipal/Water\\_Audit/wald.asp](http://www.twdb.state.tx.us/assistance/conservation/Municipal/Water_Audit/wald.asp)

Reference and attach water loss audit and/or any other completed planning or engineering studies:

- 2009-2012 Water Use Survey
- 2012 Monthly Water Loss Audit
- \_\_\_\_\_

#### Section 3.2 - Water Line Replacement

Proposed pipe to be replaced:

Length (LF)	Existing Pipe			Proposed Pipe	
	Material	Age (yr)	Dia. (in)	Dia. (in)	Material
13,800	Cast Iron	50+	6	6	PVC- C900
5,200	Cast Iron	50+	6	8	PVC- C900
7,000	Cast Iron	50+	8	8	PVC- C900

Percent of distribution lines being replaced: 16%

Number of breaks/leaks/repairs recorded in past 24 months for areas being replaced: \_\_\_\_\_

Estimated water loss from pipe being replaced (provide calculations on following page): 0.28 MG

Estimated annual water savings (provide calculations on following page): 0.26 MG

Estimated annual cost savings (provide calculations on following page): \$12,900

Provide detailed description of the propose improvements and provide supporting calculations. Description should include a description of the methodology used to select pipes for replacement (attach additional pages if necessary):

The project will consist of installing approximately 16,000 LF of 6" waterline and 5,000 LF of 8" waterline to replace aging existing lines. The selection of pipes being replaced was based on the age and material of pipes as well as discussion with City staff regarding frequency and severity of line breakcs. The lines proposed for replacement are cast iron pipes that are 70 or more years old and necessitate frequent replacement. In 2011 and 2012 San Saba experienced 19% and 25% water loss respectively. The average volume lost for those years was 72.8MG per year. It is estimated that 40% of this loss can be attributed to the pipes selected for replacement.

The following calculations are based on water loss reduction estimates and 2011 and 2012 water usage data provided by the City.

Average Annual Water Loss		72,800,000 gal
Loss Reduction	x	40 %
-----		
Total Water Savings	=	29,120,000 gal
Water Production Cost per 1000 gal	x	\$0.33
-----		
Water Production Savings	=	\$9,610
Chemical & Testing Savings	+	\$1,000 (estimated)
Labor & Equipment Savings	+	\$1,000 (estimated)
Pumping Costs Savings	+	\$5,700 (1)
-----		
Total Annual Savings	=	\$17,310

(1) Water pumping costs is estimated as:  $C = (0.746 V h c / (3960 \mu p \mu m)) / 60$

where:

C = Pumping Cost

V = volume pumped (gal)

h = head (ft) (150ft assumed)

c = cost rate per kWh (\$0.1 assumed)

$\mu p$  = pump efficiency (0.7 assumed)

$\mu m$  = motor efficiency (0.9 assumed)

Green amount associated with water line replacement:           \$300,000          

(Attach detailed cost estimate if necessary)



TEXAS WATER DEVELOPMENT BOARD  
Municipal Water Use Survey for the Calendar Year Ending December 31, 2009

ANSWER SHEET

> CITY OF SAN SABA  
>  
> ATTN: CITY SECRETARY  
> 303 S. CLEAR  
> SAN SABA, TX 76877

*for office use only*  
County Number 206  
Survey Number 770600  
Batch Number N/A

Please add or make any revisions to the address or information below:  
Primary County SAN SABA  
River Basin COLORADO  
TCEQ PWS Code 206 0001

PUMPED GROUNDWATER (SELF-SUPPLIED)

	SOURCE 1	SOURCE 2	SOURCE 3	SOURCE 4	SOURCE 5
1. Aquifer Name	1-3 Marble Falls	4-7 Ellanberg San Saba			
2. County Where Pumped	San Saba	San Saba			
3. Number of Active Wells	3	4			
	OR	OR	OR	OR	OR

SURFACE WATER UNDER A TCEQ WATER RIGHT (SELF-SUPPLIED)

N/A

4. Reservoir or River					
5. County of Diversion					
6. TCEQ Water Right #					
	OR	OR	OR	OR	OR

PURCHASED WATER

7. Name of Water Provider					
8. Type of Water					
9. Name of Source					
10. Source County					
	AND	AND	AND	AND	AND

VOLUME OF WATER INTAKE (IN GALLONS)

11. January	1,639,000	13,053,000		
12. February	1,890,000	12,968,000		
13. March	2,818,000	16,802,000		
14. April	1,770,000	15,540,000		
15. May	1,507,000	16,871,000		
16. June	5,783,000	22,260,000		
17. July	9,067,000	24,881,000		
18. August	8,549,000	23,660,000		
19. September	3,149,000	17,658,000		
20. October	911,000	15,564,000		
21. November	884,000	15,711,000		
22. December	1,057,000	16,029,000		
23. Total Annual Volume	39,024,000	210,997,000		
24. Metered or Estimated	metered	metered		
25. % Treated Before Intake	16	84		
26. Brackish/Saline (Y or N)	NO	NO		

REUSE/TREATED EFFLUENT (SELF-SUPPLIED OR PURCHASED)

	SOURCE 1	SOURCE 2	SOURCE 3
27. Reuse Water Source (self-treated or purchased)	<del>Self-Treated</del> N/A		
28. Source County			
29. If Purchased, Sellers Name			
30. Direct or Indirect Reuse			
31. If Indirect Reuse, TCEQ Water Right Number	970		
32. Total Annual Volume (in gallons)			
33. Percent used for Industrial	10		
34. Percent used for Irrigation			
35. Percent used for Agriculture			
36. Percent used for Other			

WHOLESALE WATER SALES TO OTHER WATER SYSTEMS

	37. Name of Buyer	38. Type of Water	39. Source of Water	40. Source County	41. Total Annual
SALE 1	NSSWSC	6 W	(Marble Falls)	San Saba	36,327,000
SALE 2			(Lollenberger)		
SALE 3			San Saba		

WHOLESALE WATER SALES TO INDUSTRIAL PRODUCTION FACILITIES

	42. Name of Buyer	43. Type of Water	44. Source of Water	45. Source County	46. Total Annual
SALE 1	N/A				
SALE 2					
SALE 3					

DIRECT RETAIL CONNECTIONS TO ADDITIONAL CITIES/COUNTIES

	CITY 1	CITY 2	CITY 3	CITY 4	CITY 5
47. City Name	N/A				
48. Number of Connections	City of San Saba				

	COUNTY 1	COUNTY 2	COUNTY 3	COUNTY 4	COUNTY 5
49. County Name	N/A				
50. Number of Connections	San Saba				

WATER SYSTEM INFORMATION

51. What is the estimated total full-time residential population served directly by this system? 2479

	Total Connections (Metered & Unmetered)	Single-Family Residential (Including Duplexes)	Multi-Family Units (NOT Service Connections)	Commercial / Institutional	Other Metered Connections
52. Total Connections	1650	1047	47	270	N/A
53. Total Annual Volume	N/A	105,932,000		92,937,000	<del>92,937,000</del>

54. What is the estimated volume (IN GALLONS) of the known unmetered water usage? \_\_\_\_\_

55. What is the water loss volume (in GALLONS) for the system (intake minus all sales, metered sales, metered uses, and known unmetered sources)? 51,152,000

56. What is the total number of service connections that are unmetered? None

Please complete or make any revisions to the areas below:

Contact Name: ~~Buddy Wibley~~ James W Yorkrough  
 Contact Title: PLANT SUPERVISOR  
 Email Address: SSWD@Context.Net  
 Phone: 325-372-~~372~~ 7355 Phone Extension: \_\_\_\_\_

Please provide any additional comments or remarks below. Attach additional sheets if needed.

On line 52 our software does not separate Residential metering (Buddy) is Retired from the City of San Saba Water Dept. in question 51. This number does not add NSSWSC to the number.

TEXAS WATER DEVELOPMENT BOARD  
Municipal Water Use Survey for the Calendar Year Ending December 31, 2010  
ANSWER SHEET

> CITY OF SAN SABA  
>  
> ATTN: CITY SECRETARY  
> 303 S. CLEAR  
> SAN SABA, TX 76877

*for office use only*  
County Number 206  
Survey Number 770690  
Batch Number N/A

Please add or make any revisions to  
the address or information below:  
Primary County SAN SABA  
River Basin COLORADO  
TCEQ PWS Code 206 0001

PUMPED GROUNDWATER (SELF-SUPPLIED)

	SOURCE 1	SOURCE 2	SOURCE 3	SOURCE 4	SOURCE 5
1. Aquifer Name	1-3 Marble Falls	4-7 Glen Rose San Saba			
2. County Where Pumped	San Saba	San Saba			
3. Number of Active Wells	3	4			
	OR	OR	OR	OR	OR

SURFACE WATER UNDER A TCEQ WATER RIGHT (SELF-SUPPLIED)

4. Reservoir or River					
5. County of Diversion					
6. TCEQ Water Right #					
7. % of Volume not Returned					
	OR	OR	OR	OR	OR

PURCHASED WATER

8. Name of Water Provider					
9. Type of Water					
10. Name of Source					
11. Source County					
	AND	AND	AND	AND	AND

VOLUME OF WATER INTAKE (IN GALLONS)

12. January	1,212,000	17,063,000		
13. February	832,000	11,921,000		
14. March	633,000	15,947,000		
15. April	39,000	16,614,000		
16. May	671,000	19,773,000		
17. June	3,803,000	25,095,000		
18. July	2,243,000	19,022,000		
19. August	7,135,000	19,325,000		
20. September	3,487,000	13,191,000		
21. October	4,294,000	14,256,000		
22. November	3,925,000	11,481,000		
23. December	7,287,000	16,449,000		
24. Total Annual Volume	35,561,000	200,137,000		
25. Metered or Estimated	Metered	Metered		
26. % Treated Before Intake	18%	82%	= 100% treated before Intake	
27. Brackish/Saline (Y or N)	N	N		

**REUSE/TREATED EFFLUENT (SELF-SUPPLIED OR PURCHASED)**

	SOURCE 1	SOURCE 2	SOURCE 3
28. Reuse Water Source (self-treated or purchased)			
29. Source County			
30. If Purchased, Sellers Name			
31. Direct or Indirect Reuse			
32. If Indirect Reuse, TCEQ Water Right Number			
33. Total Annual Volume (in gallons)			
34. Percent used for Industrial			
35. Percent used for Landscape			
36. Percent used for Agriculture			
37. Percent used for Other			

**WHOLESALE WATER SALES TO OTHER WATER SYSTEMS**

	38. Name of Buyer	39. Type of Water	40. Source of Water	41. Source County	42. Total Annual
SALE 1	NSSWSC	groundwater	(Marble Falls)	San Saba	30,530,900
SALE 2			(Zellenberger)		
SALE 3			San Saba		

**WATER SALES TO INDUSTRIAL PRODUCTION FACILITIES**

	43. Name of Buyer	44. Type of Water	45. Source of Water	46. Source County	47. Total Annual
SALE 1					
SALE 2					
SALE 3					

**DIRECT RETAIL CONNECTIONS TO ADDITIONAL CITIES/COUNTIES**

	CITY 1	CITY 2	CITY 3	CITY 4	CITY 5
48. City Name					
49. Number of Connections					

	COUNTY 1	COUNTY 2	COUNTY 3	COUNTY 4	COUNTY 5
50. County Name					
51. Number of Connections					

**WATER SYSTEM INFORMATION**

52. What is the estimated total full-time residential population served directly by this system? 2479

	Total Connections / Units (Metered & Unmetered)	Single-Family Residential (Including Duplexes)	Multi-Family Units (NOT Service Connections)	Commercial / Institutional	Other Metered Connections
53. Total Connections	1361	1039	47	269	N/A
54. Total Annual Volume	N/A	104,510,000		91,575,000	

55. What is the total number of service connections that are unmetered? 0

56. What is the estimated volume (IN GALLONS) of the known unmetered water usage? 8,045,000

57. What is the water loss volume (in GALLONS) for the system (intake minus all sales, metered sales, metered uses, and known unmetered sources)? 27,079,000

Please complete or make any revisions to the areas below:

Contact Name: JAMES W YARDBROUGH *James W Yardbrough*  
 Contact Title: PLANT SUPERVISOR  
 Email Address: SSWD@Contex.net  
 Phone: 325-372-7355 Phone Extension: \_\_\_\_\_

Please provide any additional comments or remarks below. Attach additional sheets if needed.

**TEXAS WATER DEVELOPMENT BOARD**  
**Municipal Water Use Survey for the Calendar Year Ending December 31, 2011**

**ANSWER SHEET**

System Name: San Saba Water Dept.  
 Mailing Address: 303 S Clear  
 City / State / Zip: San Saba Texas 76877

*for office use only*

County Number \_\_\_\_\_  
 Survey Number \_\_\_\_\_  
 Batch Number \_\_\_\_\_

TWDB Code: \_\_\_\_\_  
 Primary County: San Saba  
 River Basin: Colorado

**PUMPED GROUNDWATER (SELF-SUPPLIED)**

	SOURCE 1	SOURCE 2	SOURCE 3	SOURCE 4	SOURCE 5
1. Aquifer Name	<u>Marble Falls</u>	<u>Elenburg San Saba</u>			
2. County Where Pumped	<u>San Saba</u>	<u>San Saba</u>			
3. Number of Active Wells	<u>3</u>	<u>4</u>			
	OR	OR	OR	OR	OR

**SURFACE WATER UNDER A TCEQ WATER RIGHT (SELF-SUPPLIED)**

*N/A*

4. Reservoir or River					
5. County of Diversion					
6. TCEQ Water Right #					
7. % of Volume not Returned					
	OR	OR	OR	OR	OR

**PURCHASED WATER**

*N/A*

8. Name of Water Provider					
9. Type of Water					
10. Name of Source					
11. Source County					
	AND	AND	AND	AND	AND

**VOLUME OF WATER INTAKE (IN GALLONS)**

12. January	<u>10,836,000</u>	<u>15,892,000</u>		
13. February	<u>7,246,000</u>	<u>14,916,000</u>		
14. March	<u>2,402,000</u>	<u>6,974,000</u>		
15. April	<u>9,931,000</u>	<u>20,645,000</u>		
16. May	<u>6,250,000</u>	<u>20,716,000</u>		
17. June	<u>13,879,000</u>	<u>24,498,000</u>		
18. July	<u>13,610,000</u>	<u>26,203,000</u>		
19. August	<u>28,359,000</u>	<u>26,928,000</u>		
20. September	<u>15,596,000</u>	<u>23,957,000</u>		
21. October	<u>7,103,000</u>	<u>20,304,000</u>		
22. November	<u>5,494,000</u>	<u>17,248,000</u>		
23. December	<u>7,898,000</u>	<u>21,197,000</u>		
24. Total Annual Volume	<u>124,604,000</u>	<u>239,478,000</u>		
25. Metered or Estimated	<u>metered</u>	<u>metered</u>		
26. % Treated Before Intake	<u>100%</u>	<u>100%</u>		
27. Brackish/Saline (Y or N)	<u>NO</u>	<u>NO</u>		

**REUSE/TREATED EFFLUENT (SELF-SUPPLIED OR PURCHASED)**

	SOURCE 1	SOURCE 2	SOURCE 3
28. Reuse Water Source (self-treated or purchased)			
29. Source County			
30. If Purchased, Sellers Name			
31. Direct or Indirect Reuse			
32. If Indirect Reuse, TCEQ Water Right Number			
33. Total Annual Volume (in gallons)			
34. Percent used for Industrial			
35. Percent used for Landscape			
36. Percent used for Agriculture			
37. Percent used for Other			

**WHOLESALE WATER SALES TO OTHER WATER SYSTEMS**

	38. Name of Buyer	39. Type of Water	40. Source of Water	41. Source County	42. Total Annual
SALE 1	NSWSC	Groundwater	marble falls	San Saba	27,299,300
SALE 2			Elzenberger		
SALE 3			San Saba		

**WATER SALES TO INDUSTRIAL PRODUCTION FACILITIES**

	43. Name of Buyer	44. Type of Water	45. Source of Water	46. Source County	47. Total Annual
SALE 1					
SALE 2					
SALE 3					

**DIRECT RETAIL CONNECTIONS TO ADDITIONAL CITIES/COUNTIES**

	CITY 1	CITY 2	CITY 3	CITY 4	CITY 5
48. City Name					
49. Number of Connections					

	COUNTY 1	COUNTY 2	COUNTY 3	COUNTY 4	COUNTY 5
50. County Name					
51. Number of Connections					

**WATER SYSTEM INFORMATION**

52. What is the estimated total full-time residential population served directly by this system? \_\_\_\_\_

	Total Connections/Units (Metered & Unmetered)	Single-Family Residential (Including Duplexes)	Multi-Family Units (NOT Service Connections)	Commercial / Institutional	Other Metered Connections
53. Total Connections	1357	<del>1020</del> 1020	41	275	N/A
54. Total Annual Volume	N/A	133,443,000		110,252,000	

55. What is the total number of service connections that are unmetered? both

56. What is the estimated volume (IN GALLONS) of the known unmetered water usage? 47,044,680

57. What is the water loss volume (in GALLONS) for the system (intake minus all sales, metered sales, metered uses, and known unmetered sources)? 83,452,000

Please complete or make any revisions to the areas below:

Contact Name: James W. Yarborough  
 Contact Title: Water/Wastewater Superintendent  
 Email Address: SSWD@centex.net  
 Phone: cell 325-372-7355 Phone Extension \_\_\_\_\_  
City Hall 325-372-5144

Please provide any additional comments or remarks below. Attach additional sheets if needed.

During the middle of the summer we had a computer metering malfunction, the meters were over registering water from wells. The problem was corrected as soon as noticed. Could not estimate how much the volume was over on meters.

JW

# WATER AUDIT WORKSHEET

AUDIT PERIOD: Dec 13 - Jan 12, 2012

1.	TOTAL WATER SUPPLIED		
	1.1 13-31	17974000	
	1.2 1-12	8655000	26629000
2.	ADJUSTMENTS TO WATER SUPPLY		
	2.1 DECREASE IN STORAGE VOLUME		0
	2.2 INCREASE IN STORAGE VOLUME		0
3.	NET WATER PRODUCED		26629000
4.	GALLONS OF METERED WATER SOLD		
	4.1 WATER REGULAR		
	4.2 WATER COMPOUND	11259156	11259156
5.	GROSS UNACCOUNTED-FOR WATER		15369844
6.	UNMETERED WATER USE		
	6.1 FIRE FIGHTING AND TRAINING	5200	
	6.2 REPAIRS AND MAIN FLUSHING	0	
	6.3 STORM AND SEWER DRAIN FLUSHING	0	
	6.4 SCHOOLS		
	6.5 PARKS		
	6.5.1 SWIMMING POOL		
	6.6 CONSTRUCTION		
	6.7 STORAGE TANK DRAINAGE		
	6.8 OTHER UNMETERED USES	70300	
	6.9 TOTAL UNMETERED USES	75500	75500
7.	IDENTIFIED AND ESTIMATED LOSSES		
	7.1 REPORTING / ACCOUNTING ERRORS		
	7.2 SYSTEM CONTROL MALFUNCTIONS		
	7.3 LEAKS / REPAIRS	12610000	
	7.4 THEFT		
	7.5 OTHERS	15000	
	7.6 TOTAL IDENTIFIED / ESTIMATED LOSS	12625000	12625000
8.	NET UNACCOUNTED FOR WATER		2669344
9.	PERCENTAGE OF UNACCOUNTED FOR WATER		10%
10.	COST OF UNACCOUNTED FOR WATER		
	10.1 COST OF WATER PURCHASED	N/A	
	10.2 COST OF PRODUCED WATER	\$800.80	
	10.3 TOTAL COST OF UNACCOUNTED FOR WATER		\$800.80
11.	MINIMUM LOSS OF REVENUE		\$3,203.21

# WATER AUDIT WORKSHEET

AUDIT PERIOD: Jan 13 - Feb 12, 2012

1.	TOTAL WATER SUPPLIED		
	1.1 13-31	10858000	
	1.2 1-12	8307000	19165000
2.	ADJUSTMENTS TO WATER SUPPLY		
	2.1 DECREASE IN STORAGE VOLUME		0
	2.2 INCREASE IN STORAGE VOLUME		0
3.	NET WATER PRODUCED		19165000
4.	GALLONS OF METERED WATER SOLD		
	4.1 WATER REGULAR		
	4.2 WATER COMPOUND		11819382
5.	GROSS UNACCOUNTED-FOR WATER		7345618
6.	UNMETERED WATER USE		
	6.1 FIRE FIGHTING AND TRAINING	5000	
	6.2 REPAIRS AND MAIN FLUSHING	0	
	6.3 STORM AND SEWER DRAIN FLUSHING		
	6.4 SCHOOLS		
	6.5 PARKS		
	6.5.1 SWIMMING POOL		
	6.6 CONSTRUCTION		
	6.7 STORAGE TANK DRAINAGE		
	6.8 OTHER UNMETERED USES	25000	
	6.9 TOTAL UNMETERED USES	30000	30000
7.	IDENTIFIED AND ESTIMATED LOSSES		
	7.1 REPORTING / ACCOUNTING ERRORS		
	7.2 SYSTEM CONTROL MALFUNCTIONS	5500000	
	7.3 LEAKS / REPAIRS	300000	
	7.4 THEFT	0	
	7.5 OTHERS	15000	
	7.6 TOTAL IDENTIFIED / ESTIMATED LOSS	5815000	5815000
8.	NET UNACCOUNTED FOR WATER		1500618
9.	PERCENTAGE OF UNACCOUNTED FOR WATER		8%
10.	COST OF UNACCOUNTED FOR WATER		
	10.1 COST OF WATER PURCHASED	N/A	
	10.2 COST OF PRODUCED WATER	\$450.19	
	10.3 TOTAL COST OF UNACCOUNTED FOR WATER		\$450.19
11.	MINIMUM LOSS OF REVENUE		\$1,800.74



# WATER AUDIT WORKSHEET

AUDIT PERIOD: Feb 13 - Mar 12, 2012

1.	TOTAL WATER SUPPLIED		
	1.1 13-31	6251100	
	1.2 1-12	4103000	10354100
2.	ADJUSTMENTS TO WATER SUPPLY		
	2.1 DECREASE IN STORAGE VOLUME		0
	2.2 INCREASE IN STORAGE VOLUME		0
3.	NET WATER PRODUCED		10354100
4.	GALLONS OF METERED WATER SOLD		
	4.1 WATER REGULAR		
	4.2 WATER COMPOUND	11209000	11209000
5.	GROSS UNACCOUNTED-FOR WATER		-854900
6.	UNMETERED WATER USE		
	6.1 FIRE FIGHTING AND TRAINING	15000	
	6.2 REPAIRS AND MAIN FLUSHING		
	6.3 STORM AND SEWER DRAIN FLUSHING		
	6.4 SCHOOLS		
	6.5 PARKS		
	6.5.1 SWIMMING POOL		
	6.6 CONSTRUCTION		
	6.7 STORAGE TANK DRAINAGE		
	6.8 OTHER UNMETERED USES	15000	
	6.9 TOTAL UNMETERED USES	30000	30000
7.	IDENTIFIED AND ESTIMATED LOSSES		
	7.1 REPORTING / ACCOUNTING ERRORS		
	7.2 SYSTEM CONTROL MALFUNCTIONS		
	7.3 LEAKS / REPAIRS	85000	
	7.4 THEFT		
	7.5 OTHERS	15000	
	7.6 TOTAL IDENTIFIED / ESTIMATED LOSS	100000	100000
8.	NET UNACCOUNTED FOR WATER		-984900
9.	PERCENTAGE OF UNACCOUNTED FOR WATER		-10%
10.	COST OF UNACCOUNTED FOR WATER		
	10.1 COST OF WATER PURCHASED	N/A	
	10.2 COST OF PRODUCED WATER	(\$295.47)	
	10.3 TOTAL COST OF UNACCOUNTED FOR WATER		(\$295.47)
11.	MINIMUM LOSS OF REVENUE		#####

# WATER AUDIT WORKSHEET

'AUDIT PERIOD: Mar 13 - Apr 12, 2012

1.	TOTAL WATER SUPPLIED		
	1.1 13-31	13,216,000	
	1.2 1-12	10,436,000	<u>23,652,000</u>
2.	ADJUSTMENTS TO WATER SUPPLY		
	2.1 DECREASE IN STORAGE VOLUME		<u>0</u>
	2.2 INCREASE IN STORAGE VOLUME		<u>500,000</u>
3.	NET WATER PRODUCED		<u>23,152,000</u>
4.	GALLONS OF METERED WATER SOLD		
	4.1 WATER REGULAR		
	4.2 WATER COMPOUND		<u>15,517,000</u>
5.	GROSS UNACCOUNTED-FOR WATER		<u>7,635,000</u>
6.	UNMETERED WATER USE		
	6.1 FIRE FIGHTING AND TRAINING	<u>5,000</u>	
	6.2 REPAIRS AND MAIN FLUSHING	<u>15,000</u>	
	6.3 STORM AND SEWER DRAIN FLUSHING		
	6.4 SCHOOLS		
	6.5 PARKS		
	6.5.1 SWIMMING POOL	<u>180,000</u>	
	6.6 CONSTRUCTION		
	6.7 STORAGE TANK DRAINAGE		
	6.8 OTHER UNMETERED USES	<u>10,500</u>	
	6.9 TOTAL UNMETERED USES	<u>210,500</u>	<u>210,500</u>
7.	IDENTIFIED AND ESTIMATED LOSSES		
	7.1 REPORTING / ACCOUNTING ERRORS		
	7.2 SYSTEM CONTROL MALFUNCTIONS		
	7.3 LEAKS / REPAIRS	<u>3,500,000</u>	
	7.4 THEFT		
	7.5 OTHERS		
	7.6 TOTAL IDENTIFIED / ESTIMATED LOSS	<u>3,500,000</u>	<u>3,500,000</u>
8.	NET UNACCOUNTED FOR WATER		<u>3,924,500</u>
9.	PERCENTAGE OF UNACCOUNTED FOR WATER		<u>17%</u>
10.	COST OF UNACCOUNTED FOR WATER		
	10.1 COST OF WATER PURCHASED	<u>N/A</u>	
	10.2 COST OF PRODUCED WATER	<u>\$1,177.35</u>	
	10.3 TOTAL COST OF UNACCOUNTED FOR WATER		<u>\$1,177.35</u>
11.	MINIMUM LOSS OF REVENUE		<u>\$4,709.40</u>

# WATER AUDIT WORKSHEET

'AUDIT PERIOD: Apr 13 - May 12, 2012

1.	TOTAL WATER SUPPLIED		
	1.1 13-31	16,411,000	
	1.2 1-12	10,306,000	<u>26,717,000</u>
2.	ADJUSTMENTS TO WATER SUPPLY		
	2.1 DECREASE IN STORAGE VOLUME		<u>500,000</u>
	2.2 INCREASE IN STORAGE VOLUME		<u>0</u>
3.	NET WATER PRODUCED		<u>27,217,000</u>
4.	GALLONS OF METERED WATER SOLD		
	4.1 WATER REGULAR		
	4.2 WATER COMPOUND		<u>18,986,399</u>
5.	GROSS UNACCOUNTED-FOR WATER		<u>8,230,601</u>
6.	UNMETERED WATER USE		
	6.1 FIRE FIGHTING AND TRAINING	<u>10,000</u>	
	6.2 REPAIRS AND MAIN FLUSHING	<u>15,000</u>	
	6.3 STORM AND SEWER DRAIN FLUSHING		
	6.4 SCHOOLS		
	6.5 PARKS		
	6.5.1 SWIMMING POOL	<u>0</u>	
	6.6 CONSTRUCTION		
	6.7 STORAGE TANK DRAINAGE	<u>500,000</u>	
	6.8 OTHER UNMETERED USES	<u>25,000</u>	
	6.9 TOTAL UNMETERED USES	<u>550,000</u>	<u>550,000</u>
7.	IDENTIFIED AND ESTIMATED LOSSES		
	7.1 REPORTING / ACCOUNTING ERRORS		
	7.2 SYSTEM CONTROL MALFUNCTIONS		
	7.3 LEAKS / REPAIRS	<u>500,000</u>	
	7.4 THEFT		
	7.5 OTHERS	<u>15,000</u>	
	7.6 TOTAL IDENTIFIED / ESTIMATED LOSS	<u>515,000</u>	<u>515,000</u>
8.	NET UNACCOUNTED FOR WATER		<u>7,165,601</u>
9.	PERCENTAGE OF UNACCOUNTED FOR WATER		<u>26%</u>
10.	COST OF UNACCOUNTED FOR WATER		
	10.1 COST OF WATER PURCHASED	<u>N/A</u>	
	10.2 COST OF PRODUCED WATER	<u>\$2,149.68</u>	
	10.3 TOTAL COST OF UNACCOUNTED FOR WATER		<u>\$2,149.68</u>
11.	MINIMUM LOSS OF REVENUE		<u>\$8,598.72</u>

# WATER AUDIT WORKSHEET

'AUDIT PERIOD: May 13 - June 12, 2012

1.	TOTAL WATER SUPPLIED		
	1.1 13-31	15,915,000	
	1.2 1-12	11,445,000	<u>27,360,000</u>
2.	ADJUSTMENTS TO WATER SUPPLY		
	2.1 DECREASE IN STORAGE VOLUME		<u>0</u>
	2.2 INCREASE IN STORAGE VOLUME		<u>0</u>
3.	NET WATER PRODUCED		<u>27,360,000</u>
4.	GALLONS OF METERED WATER SOLD		
	4.1 WATER REGULAR		
	4.2 WATER COMPOUND		<u>20,631,000</u>
5.	GROSS UNACCOUNTED-FOR WATER		<u>6,729,000</u>
6.	UNMETERED WATER USE		
	6.1 FIRE FIGHTING AND TRAINING	<u>10,000</u>	
	6.2 REPAIRS AND MAIN FLUSHING	<u>1,550,000</u>	
	6.3 STORM AND SEWER DRAIN FLUSHING		
	6.4 SCHOOLS		
	6.5 PARKS		
	6.5.1 SWIMMING POOL	<u>0</u>	
	6.6 CONSTRUCTION		
	6.7 STORAGE TANK DRAINAGE		
	6.8 OTHER UNMETERED USES	<u>17,250</u>	
	6.9 TOTAL UNMETERED USES	<u>1,755,000</u>	<u>1,577,250</u>
7.	IDENTIFIED AND ESTIMATED LOSSES		
	7.1 REPORTING / ACCOUNTING ERRORS		
	7.2 SYSTEM CONTROL MALFUNCTIONS		
	7.3 LEAKS / REPAIRS	<u>100,000</u>	
	7.4 THEFT		
	7.5 OTHERS	<u>15,000</u>	
	7.6 TOTAL IDENTIFIED / ESTIMATED LOSS	<u>115,000</u>	<u>115,000</u>
8.	NET UNACCOUNTED FOR WATER		<u>5,036,750</u>
9.	PERCENTAGE OF UNACCOUNTED FOR WATER		<u>18%</u>
10.	COST OF UNACCOUNTED FOR WATER		
	10.1 COST OF WATER PURCHASED	<u>N/A</u>	
	10.2 COST OF PRODUCED WATER	<u>\$1,511.03</u>	
	10.3 TOTAL COST OF UNACCOUNTED FOR WATER		<u>\$1,511.03</u>
11.	MINIMUM LOSS OF REVENUE		<u>\$6,044.10</u>