


Improve Septic Billing



P.O. Box 2039
Tyler, Texas 75710



511 W. Locust Street
Tyler, Texas 75702

Septic Service
1234 Disney Blvd.
Tyler, Texas 75702

INVOICE# 1082013

(\$30.00 per Thousand)

Date	Volume	Total
Jan-13	57,000	\$1,710.00

Residential

CURRENT BALANCE: \$1,710.00

PREVIOUS BALANCE: \$3,875.00 Credit

BALANCE DUE: \$2,165.00 Credit

DUE DATE: 1/25/2013

*****PLEASE SEND PAYMENTS TO*****

TYLER WATER UTILITIES
P.O. BOX 2039
TYLER, TEXAS 75710



Green Belt: Tiffany Dunkley

Define Phase

1. Identify and Scope Project



Champion Project Worksheet

Champion:

Step	Action	Information Elements for Defining Project	Definition/Explanation	Actual Project Information
1. Identify the specific problem that needs to be solved per the business case or other source.	1A	WHAT is the actual problem?	A business condition or impediment to success stated as the high level effect the problem is having on the business. This is usually in terms of cost, revenue, quality or delivery.	Ineffective billing, inconsistent record keeping,
	1B	WHERE is the problem occurring?	Define where the problem is occurring. Include a geographic name such as city or facility and the name of the business area; i.e., Accounts Receivable, Purchasing, Manufacturing...	Westside Wastewater Treatment Plant, Lake Palestine Treatment Plant Office and the Water Business Office
	1C	The TIMEFRAME over which this problem has existed?	Define when the problem first began or the timeframe over which it has existed. Example: Began Feb 2005, for the past 15 mos., or has always existed.	Not sure
	1D	WHO is the customer(s) most affected by this problem?	Identify who the customer is that is most impacted by this business problem. This could be an internal or an external customer.	Septic haulers and The City
2. Determine the Y's (CTQ's), what specifically needs to be improved and the baseline performance level.	2A	Determine the characteristic or process output (Y's) that will be improved to solve this problem.	Name the Y which you intend to improve in order to solve the problem; i.e., Product Test Yields, Customer Complaints, Invoice Errors, Response Time....	Response time, billing process, payment records
	2B	Identify the PRIMARY METRIC for each Y that numerically describes the problem and will be used to measure and track improvement.	This is a combination of the name for the Y and the unit of measure associated with it. Example: motor torque % defective, defects per invoice, call back response time in minutes....	payment defect
	2C	Estimate the magnitude, BASELINE PERFORMANCE, of the problem in terms of the primary metric.	Data should be gathered to determine the performance or behavior of the primary metric, assure the data is long term and not short term data. An Excel macro can be used to plot the data as a function of time and then be used to monitor the improvement as a function of time. This data establishes the base from which to calculate the potential financial benefits of the project, as a function its improvements.	13% Total Defect Rate
	2D	Identify a CONSEQUENTIAL METRIC.	This is any other characteristic or process output you will want to monitor to assure there is no negative impact to another area from solving the problem.	Loss of Revenue

The City is currently using a manual process to do septic billing. This manual process has been used for several years and over the course of the years there has been a reduction in revenue. The goal of this project is to determine why the loss of the revenue and to find a new, efficient way to bill using HTE.

Define Phase

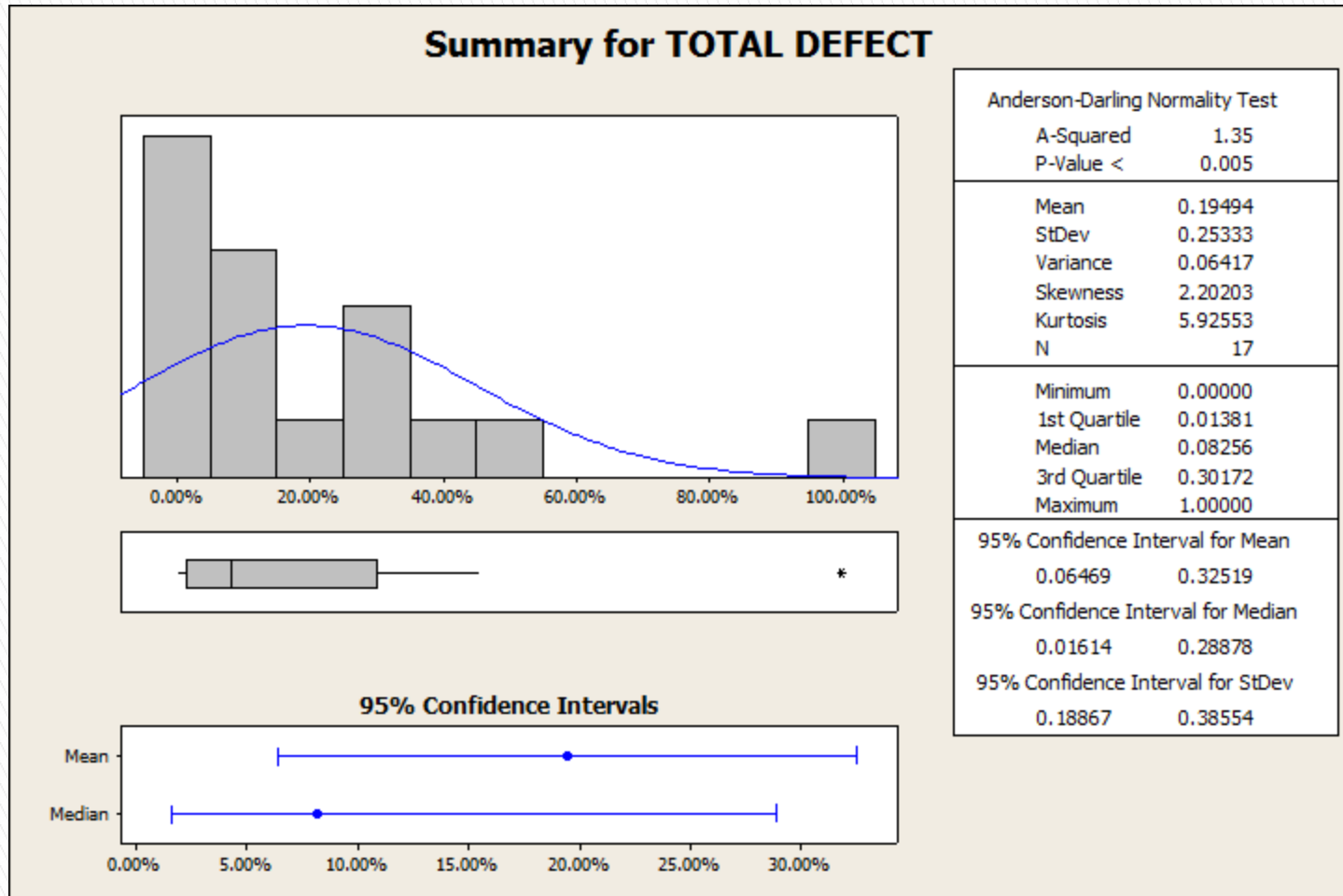
1. Identify and Scope Project



	AAA SEPTIC	A & A SEPTIC	AIMI SEPTIC	AMER-ITEX SERVICES	ASTRO JOHNNY	CANDY SANITATION	CLAY SEPTIC	F & G	FOSHEE SEPTIC	K-JOHN	L & L	MORENO SEPTIC	REYNOLDS	RICHARD	RIDGLE SEPTIC	SANCHEZ SEPTIC	WEAVER SEPTIC
2012																	
JANUARY	50,400	63,767	9550	7100	7700	57,450		0		9900	0	36,050	14,150		9500	4950	18,100
FEBRUARY	40550	62,750	12010	5600	17,400	57,993		0		11,200	0	49,850	13,300		12,800	12,950	12,000
MARCH	64446	90,700	13100	5650	12,900	67,767	400			13,750	0	83,800	11,200		14,500	14,650	30,980
APRIL	60,200	72,000	5775	7550	27,000	82,950		0		10,600	0	35,000	3600		17,800	8350	22,000
MAY	43700	60,450	3950	7850	16,700	82,634		0		14,750	400	36,100	3650		10,700	8700	14,100
JUNE	39850	62,150	4400	7200	13,100	46,450		0		10,100	400	21,000	9700		7500	7300	10,073
JULY	34,750	54,250	17,200	6700	8300	50,500		0		9650	0	24,400	4350		0	13,050	10,025
AUGUST	64050	48200	3700	7900	12,550	55,950		0		9600	400	23,150	5500		3000	10,700	10,050
SEPTEMBER	35300	43150	0	6600	14,550	72,300		0		17,900	400	20,050	6500		0	4000	16,450
OCTOBER	49,900	18,000	2,200	9,900	14,300	76,550		0		11,300	300	23,800	3,000		5,500	7,400	5,050
NOVEMBER	43000	56350		7300	5400	71500				8400	300	18300	11150	7000	6000	23600	21375
DECEMBER																	
2012 TOTAL GAL DUMPED								400		127150	2200	371,500	86,100	7,000	87300	115650	170,203
2011																	
JANUARY									20,250	10,500		14,500		8,250	31,600	5,100	44,012
FEBRUARY									18,600	10,100		22,650		8,750	21,600	8,550	23,000
MARCH									25,500	11,400		31,250		5,600	16,950	9,150	32,775
APRIL								3,400		9,150		21,900	6,600	9,000	22,550	2,300	22,600
MAY									8,200	7,900	300	12,750	7,200	10,800	7,500	5,200	12,550
JUNE									11,800	6,950		22,650	8,350	11,650	10,000	7,050	6,000
JULY									5,450		400	16,650	11,050	4,250	4,500	2,100	
AUGUST									5,850	8,050		16,250	11,300	7,250	7,500	2,450	
SEPTEMBER									8,550	6,825	350	15,450	18,050	2,250	6,500	1,600	
OCTOBER									11,500	8,850		19,900	17,750		11,000	3,600	
NOVEMBER									6,750	7,850	400	27,950	13,300		3,500	4,150	
DECEMBER									3,700	8,700	1,450	221,900	6,625	67,800	4,300	8,050	4,998
2011 TOTAL GAL DUMPED								3,400	126,150	96,275	1,450	221,900	100,225	135,600	147,500	59,300	145,935
2 YR TOTALS								3,800	126,150	223,425	3,650	593,400	186,325	142,600	234,800	174,950	316,138
2011 INVOICES ISSUED								02.00	\$3,784.50	\$3,703.75	no data	\$8,497.50	no data	\$1,694.75	\$4,845.00	\$1,655.00	\$4,425.11
2011 INVOICES PAID								50.00	\$4,044.90	\$2,603.00	no data	\$8,017.00	no data	\$2,400.00	\$5,820.50	\$1,738.00	\$4,153.63
2011 NOT PAID									\$-260.40	\$1,100.75		\$480.50		\$-705.25	\$-975.50	\$-83.00	\$271.48
2012 INVOICES ISSUED	\$16,915.76	\$19,983.00	\$2,156.55	\$2,300.50	\$3,581.00	\$21,796.50	no data	\$12.00	\$0.00	\$4,108.00	\$0.00	\$10,518.00	\$2,583.00	\$0.00	\$2,019.00	\$3,703.00	\$3,821.69
2012 INVOICES PAID	\$15,391.76	\$13,702.00	\$2,834.25	\$2,321.00	\$4,393.50	\$22,253.50	no data	\$0.00	\$0.00	\$4,583.75	\$6.00	\$5,499.50	\$2,796.25	\$65.50	\$1,694.00	\$3,703.00	\$4,104.94
2012 NOT PAID	\$1,524.00	\$6,281.00	-\$677.70	-\$20.50	-\$812.50	-\$457.00		\$12.00	\$0.00	-\$475.75	-\$66.00	\$5,018.50	-\$213.25	-\$65.50	\$325.00	\$0.00	-\$283.25
TOTAL NOT PAID	\$1,825.00	\$11,286.00	-\$677.70	\$7.00	-\$1,772.00	-\$458.00		\$-87.00	\$414.00	-\$260.40	\$625.00	\$0.00	\$5,499.00	-\$213.25	-\$570.75	-\$650.50	-\$51.77
2011 DEFECT	1.16%	23.34%	#VALUE!	0.87%	-6.88%	29.72%	#VALUE!	5.65%	#VALUE!	-41.61%	-20.13%	-5.02%	6.13%				
2012 DEFECT	9.01%	31.43%	-31.43%	-0.89%	-22.69%	-2.10%	#VALUE!	100.00%	#DIV/0!	-11.58%	#DIV/0!	47.71%	-8.26%	#DIV/0!	16.10%	0.00%	-7.41%
TOTAL DEFECT	4.27%	27.25%	-31.43%	-1%	-20.47%	-1.21%	-37.18%	100.00%	-6.88%	8.00%	0.00%	28.92%	-8.26%	-45.48%	-9.48%	-1.55%	-0.14%

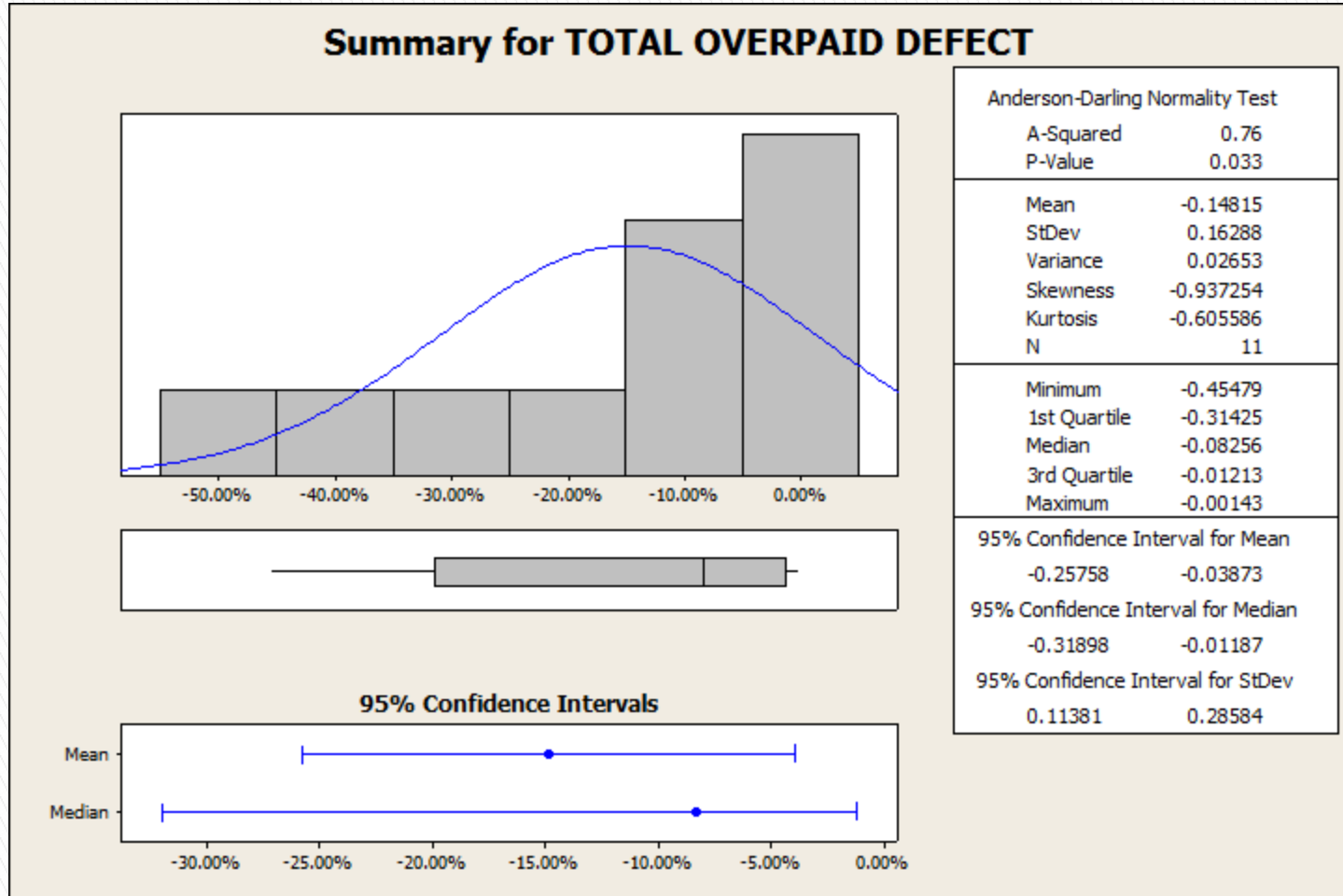
Define Phase

1. Identify and Scope Project



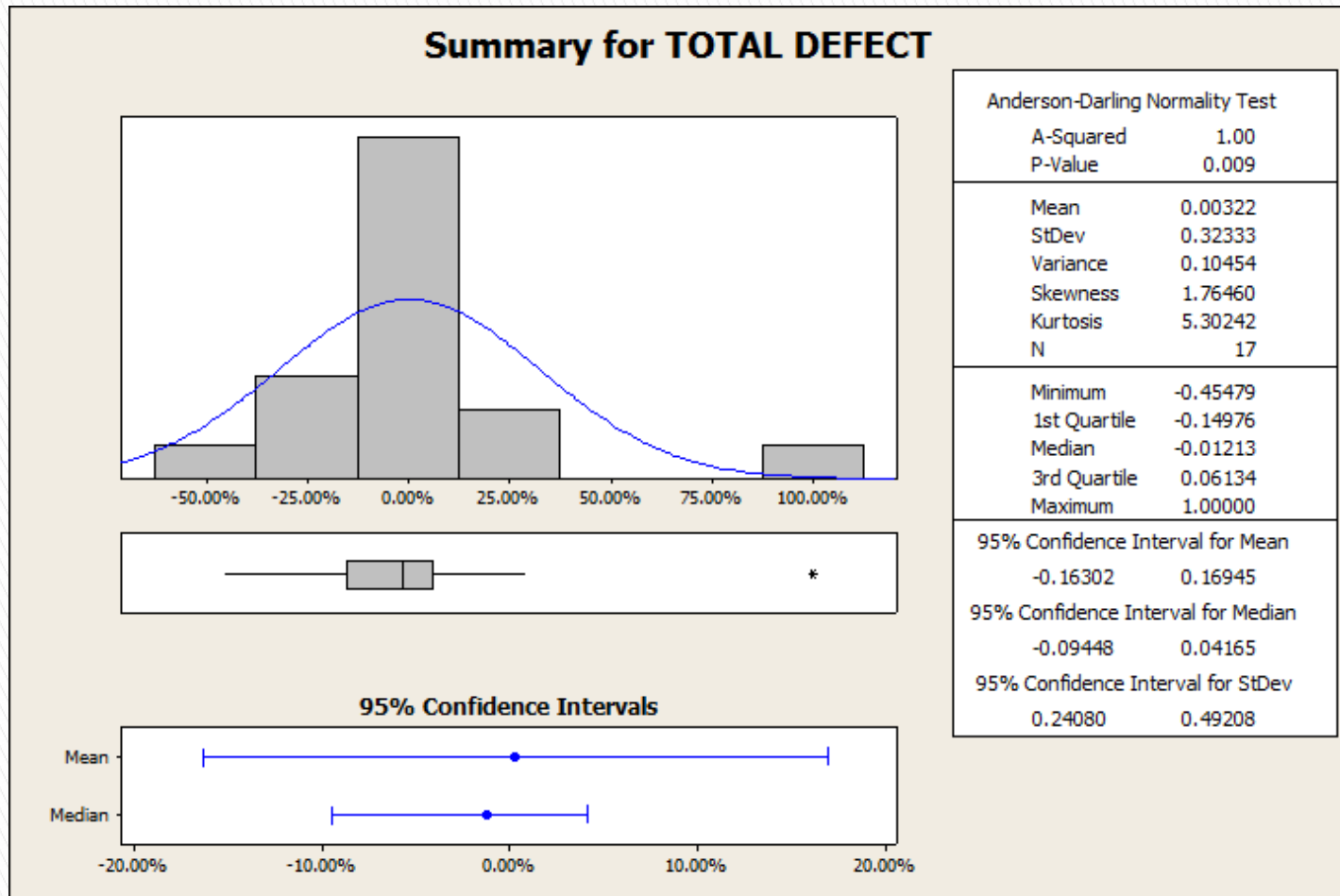
Define Phase

1. Identify and Scope Project



Define Phase

1. Identify and Scope Project



Define Phase

2. Defect Definition



Lean Sigma Project Charter						
Project Title:	Improve Septic Billing		Project No.:			
Team Members:	Authorization Date:		14-Feb-13			
Process Owner:	Jimmie Johnson	Team Members: (5-7 Core team + customer contact)				
Process Champion:	Greg Morgan	Name				
Controller:	Jim Yanker	Name				
Process Expert:	Tiffany Dunkley	Name				
Black/Green Belt:	Guillermo Garcia	Name				
Black Belt Mentor:	Guillermo Garcia	Name				
Master Black Belt:	Guillermo Garcia	Name				
Project Champion:	Greg Morgan	Name				
Key Leader:	Project Description					
Project Scope and Boundaries:	The extent of the project (e.g. CBU, Plants, Production Lines, Products, etc.) and the boundaries that limit the project: Westside Treatment Plant, Lake Palestine Treatment Plant, and Water Business Office					
Measurable:	The Customer focused measurable to be improved: Business Metric: Project Metric/Primary Metric: % Defect of Receivables Secondary Metric:					
Problem Statement:	"What is wrong with where and I know this because." What is the spec, actual performance and gap in performance (problem) as evidenced by the results of the BIC/Project Metrics: As a department, we are experiencing a problem with account billing and collections. This is occurring in the billing and collection of septic dumping at City facilities. This problem has existed for a number of years. The magnitude of the problem is that there is a total 13% defect rate per year, which is costing as much as \$24,640 per year. The Objective Statement should directly address the information in the Problem Statement. Indicate the level of improvement is expected. Should be specific and quantifiable: Reduce the defect rate by 80% or lower per year by implementing a new billing system using HTE. This should bring the total defect percentage down to 2.5% over the course of year.					
Goal Statement:	Increase / Decrease The Business/Customer Yr by what amount / percent% Defect Reduction Project Metrics: Project Metrics: Baseline: Current: % Improves: Goal: % Defect of Receivables: 13%: 13%: 80%: 2.6%					
Project Objectives:	What are the line items that provide the foundation behind the projected savings. Where does the money come from? Reduction of defect increases the amount received from invoices.					
Rationale for Hard Dollars:	Estimated Savings and Leverageability:					
Leveragability:	Cost Analysis	% Cost Reduction	Potential Savings			
<input type="radio"/> High <input checked="" type="radio"/> Medium <input type="radio"/> Low	Hard Dollars:	\$24,640 80%	\$19,712			
	Soft Dollars:	\$0 80%	\$0			
	Total Dollars	\$24,640	\$19,712			
Estimated Project Schedule - Phase Completion General Duration Chart						
Phase	Measure	Analyze	Improve	Control	Validation	Total
Weeks	3	3	3	3	4	19
Estimated Date of Completion	3/7/2013	3/28/2013	4/18/2013	5/9/2013	6/6/2013	6-Jun-13
Project Approval:						
Jimmie Johnson	2/6/13	I agree with the problem description and improvement objectives. I will provide support for the project.				
Process Owner (Print Name, Sign Name, Date)						
Greg Morgan		I agree with the problem description and improvement objectives. I support using the Lean Sigma process to resolve the problem. I will provide team members. I will provide relevant data. I will implement improvements and apply CONTROLS to sustain results.				
Process Champion (Print Name, Sign Name, Date)						
Jim Yanker	2-6-13	I agree with the cost savings estimation.				
Controller (Print Name, Sign Name, Date)						
Black Belt Mentor (Print Name, Sign Name, Date)		I approve this project to enter active status in Quality Dashboard.				
Guillermo Garcia	2/16/13	I approve this project to enter active status in Quality Dashboard.				
Master Black Belt (Print Name, Sign Name, Date)						
Project Champion (Print Name, Sign Name, Date)		I understand the Project Charter and will fulfill my role on this project.				
Greg Morgan	02/19/2013	I agree with this project to enter active status.				
Key Leader (Print Name, Sign Name, Date)						
Mark McDaniel	2/14/13	I approve this project to enter active status.				
City Manager (Print Name, Sign Name, Date)						
Tiffany Dunkley		I understand the Project Charter and will fulfill my role on this project.				
Black/Green (After Charter moved to Active)						

Problem Statement:

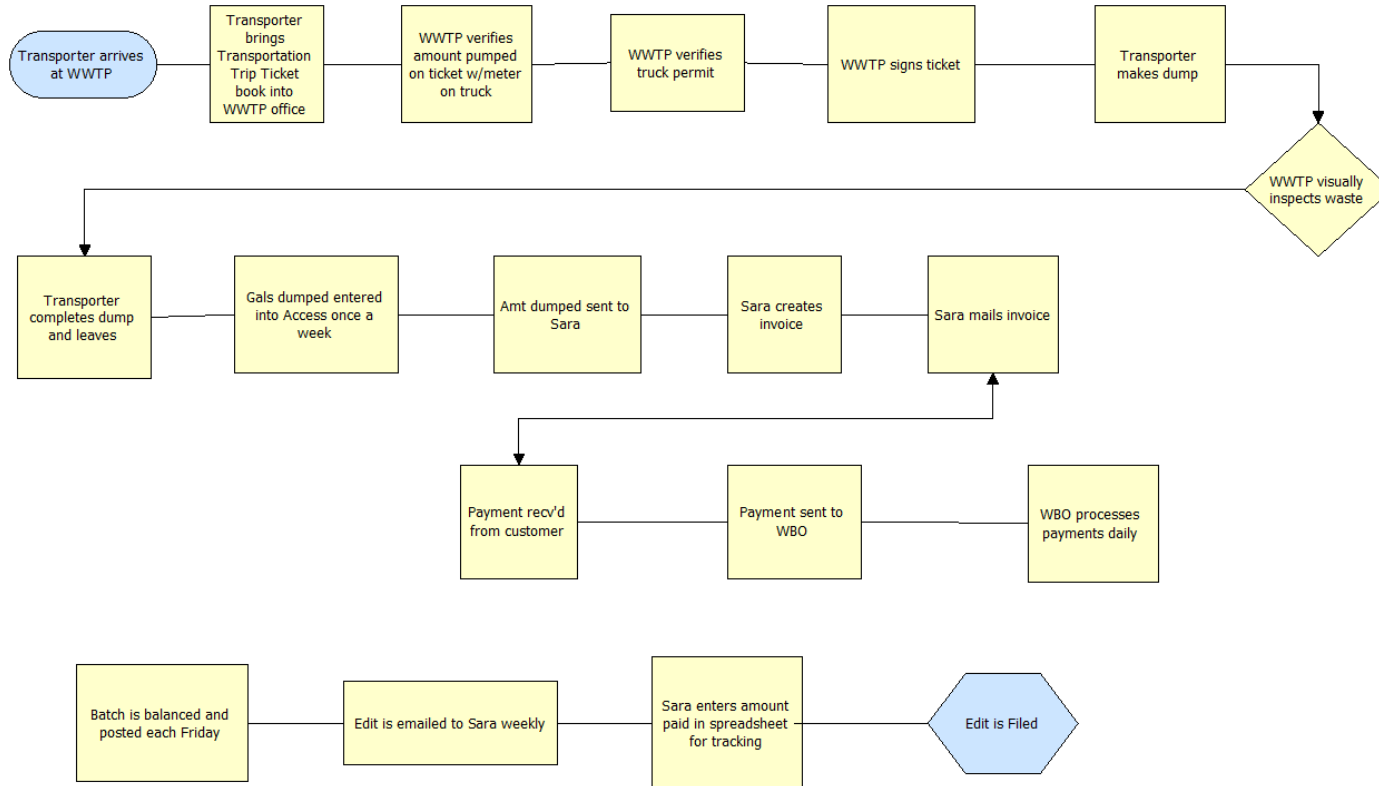
As a department, we are experiencing a problem with account billing and collections. This is occurring in the billing and collection of septic dumping at City facilities. This problem has existed for a number of years. The magnitude of the problem is that there is a total 13% defect rate per year. Which is costing as much as \$24,640 per year.

Objective Statement:

Reduce the defect rate by 80% or lower per year by implementing a new billing system using HTE. This should bring the total defect percentage down to 2.5% over the course of year. As a result the savings would be \$19,712.

Measure Phase

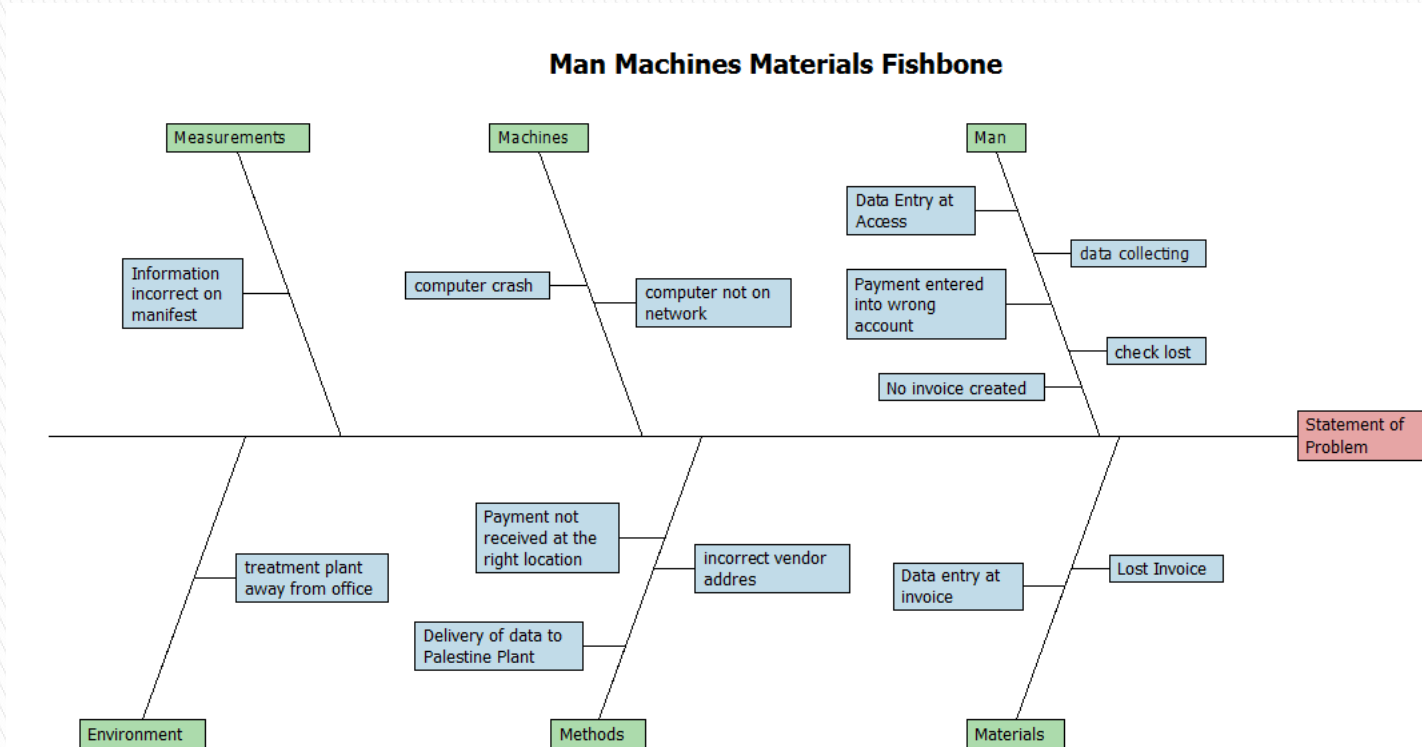
6. Identify Sources of Variation



Process Map was created in a team effort in which the team was looking to understand the overall septic billing process.

Measure Phase

6. Identify Sources of Variation



The Fishbone Diagram was created to identify all the potential factors that might cause defects in the current billing process.

Measure Phase

6. Identify Sources of Variation



YX Diagram

Demo

Process:	Improve Septic Billing
Date:	

Ranking

1	3	5	7	9
Unlikely	Some w hat unlikely	Some w hat	Some w hat likely	Most Likely

Delete

View Summary

		1	2	3	4	5	6	7	8	9	10	
		Invoice not issued	Payment lost	Outstanding Account								
Output Variables (Ys)	Description											
	Weight	9	7	9								
Input Variables (Xs)												Ranking
1	Information Incorrect on Manifest	5	1	1								61
2	Computer Crash	9	1	1								97
3	computer not on network	9	1	1								97
4	Data Entry at Access	9	1	1								97
5	Payment entered into wrong acct	1	7	5								103
6	no invoice created	9	1	5								133
7	data collecting	9	1	1								97
8	check/invoice lost	1	9	5								117
9	treatment plant away from ofc	9	1	1								97
10	payment not received at the right location	1	9	5								117
11	delivery of data to Palestine plant	7	1	1								79
12	incorrect vendor address	5	9	3								135
13	data entry at invoice	3	1	1								43
14	customer information availability to WBO	1	7	9								139

Measure Phase

6. Identify Sources of Variation

YX Diagram Summary

Process:	Improve Septic Billing
Date:	

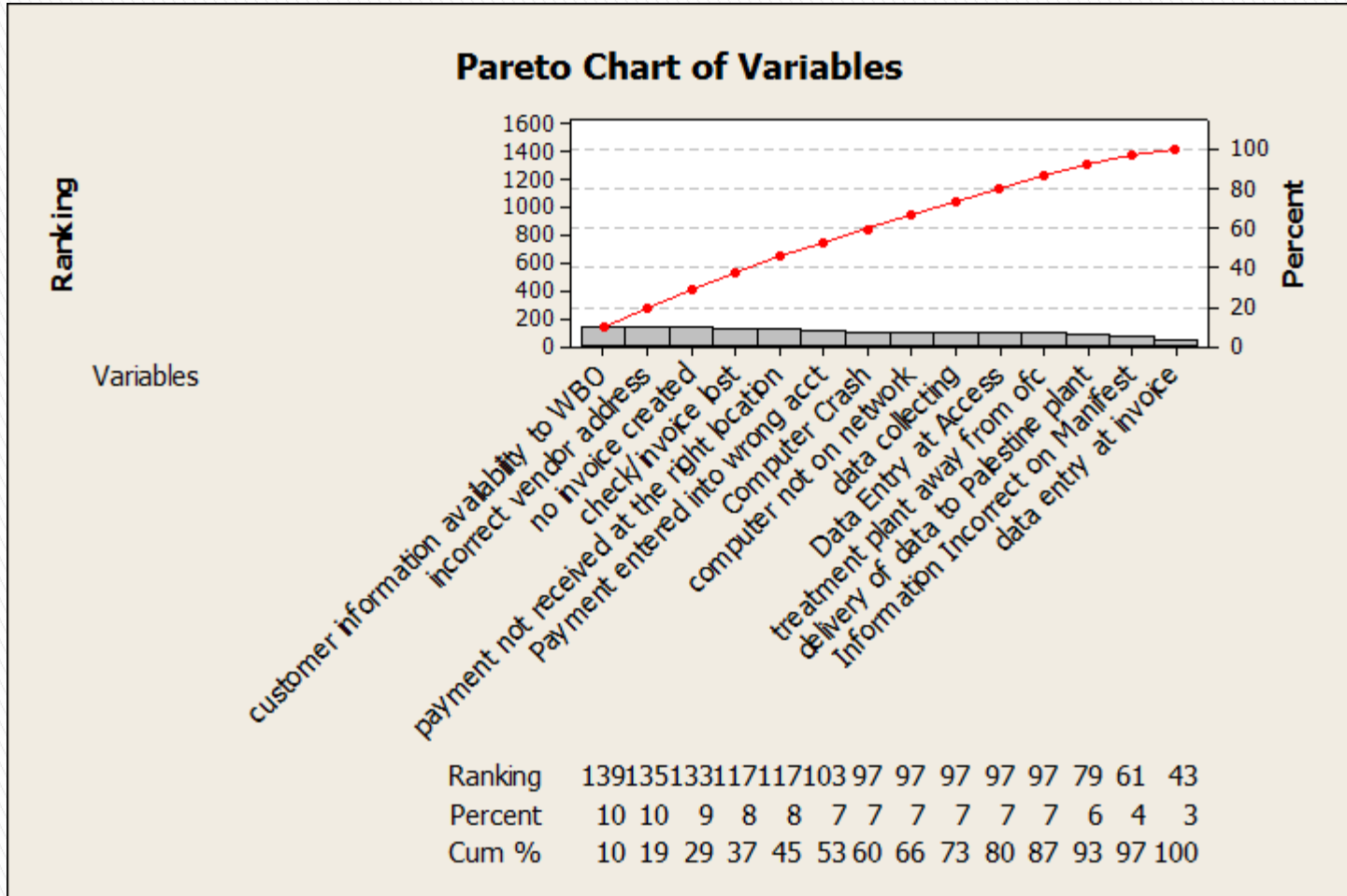
Output Variables	
Description	Weight
Invoice not issued	9
Payment lost	7
Outstanding Account	9

Input Variables	
Description	Ranking
customer information availability to WBO	139
incorrect vendor address	135
no invoice created	133
check/invoice lost	117
payment not received at the right location	117
Payment entered into wrong acct	103
Computer Crash	97
computer not on network	97
Data Entry at Access	97
treatment plant away from ofc	97
data collecting	97
delivery of data to Palestine plant	79
Information Incorrect on Manifest	61
data entry at invoice	43

From the information gathered the highest ranking variable was the lack of customer information available to the WBO. With the lowest being data entry entered in wrong on the invoice.

Measure Phase

6. Identify Sources of Variation



Analyze Phase

7. Verification of Variables



The X-Tracker is a tool used to analyze the variables and decide whether or not their significant. All variables were found to be significant.

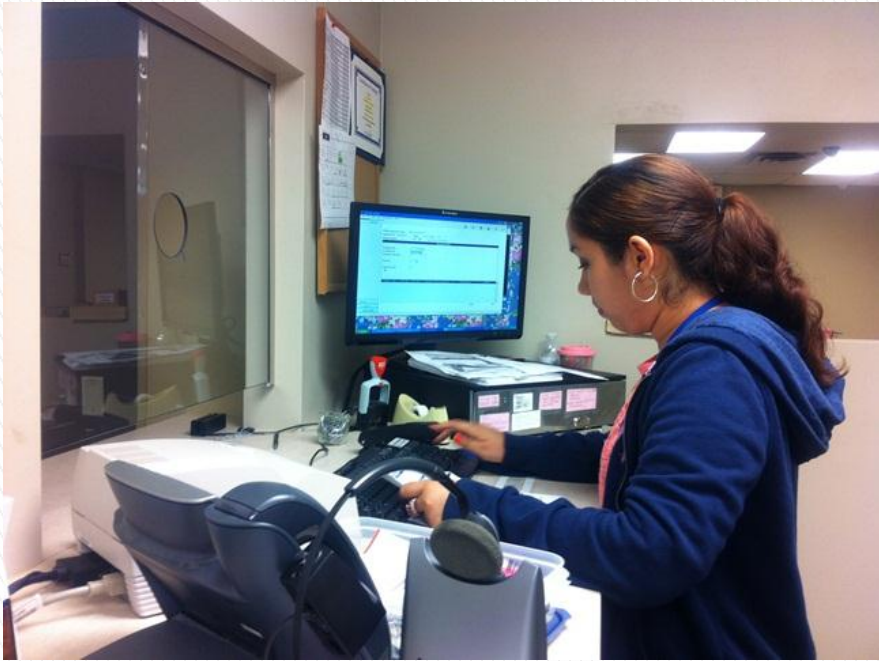
X TRACKER								
Project	Improve Septic Billing							
Y	% Defect of Receivables							
X	Prioritized Potential Cause	Null Hypothesis	Alternative Hypothesis	Unit of Measure	Data Type	Verification Method	Results	Significant - Y/N
X1	customer information availability to WBO	WBO does receive customer information	WBO does not receive customer information			verifying w/each rep to see if they have access	noone has access to the information	yes
X2	incorrect vendor address	all vendor addresses are correct	all vendor addresses are incorrect	count	attribute	count how many vendors addresses are correct or incorrect (proportion testing)	most vendor addresses are correct	yes
X3	no invoice created	all invoices are created	all invoices are not created			analysis of initial spreadsheet and the invoices that were issued	most invoices were not issued	yes
X4	check/invoice lost	all checks and invoices were received	all checks and invoices were lost			analysis of spreadsheet and payments received	most checks and invoices were unaccounted for	yes
X5	payment not received at the right location	all payments were received in WBO	all payments were not received in WBO			analysis of spreadsheet and payments received	most checks and invoices were unaccounted for	yes
X6	Payment entered into wrong acct	all payments were processed correctly	all payments were not processed correctly			analysis of spreadsheet and payments posted	most payments were not posted correctly	yes
X7	Computer Crash							
X8	computer not on network							
X9	Data Entry at Access							
X10	data collecting	all data was collected correctly	all data was not collected correctly			information received was not collected	no data	yes
X11	treatment plant away from ofc							
X12	delivery of data to Palestine plant							
X13	Information Incorrect on Manifest							
X14	data entry at invoice	all data entry was correct on invoice	all data was not correct on invoice			information from data collected	missing data	yes

Analyze Phase

7. Verification of Variables



Customer Information Availability to WBO



WBO representatives were unable to look Septic Haulers information up when they came in to pay. Which made them unable to verify what was owed without calling the LPWTP. The WBO would just take whatever the hauler wanted to pay if they were not able to verify the balance by phone. (All information was located at the Lake Palestine Water Treatment Plant.) Having the haulers in HTE allows the WBO to view how much was dumped, balance, and due date.

Analyze Phase

7. Verification of Variables



Incorrect Vendor Address

While data collecting I found that there was 6 out of the 17 vendors that had some type of defect with their billing address. They were not receiving the bill in a timely manner due to the improper addressing causing a slow response to pay.

<u>NAME</u>	<u>MAILING ADDRESS</u>	<u>CITY</u>	<u>ZIP CODE</u>	<u>STREET ADDRESS</u>	<u>CITY</u>	<u>PHONE #</u>	<u>CONTACT PERSON</u>
AAA SANITATION	1500 W CLAUDE	TYLER	75702	1500 W CLAUDE	TYLER	903-593-5909	
A&A SEPTIC							
AIM SEPTIC							JASON ROBBINS
AMERI-TEX SERVICES	PO BOX 682	WHITEHOUSE	75791	311 W MAIN ST	WHITEHOUSE	903-839-1800	
ASTRO-JOHNNY WASTE MGMT	1106 CAROLINA ST	JACKSONVILLE	75766	1106 CAROLINA ST	JACKSONVILLE	903-586-3799	
CANDY SANITATION	6356 CR 376	Tyler	75708				
CLAY SEPTIC	148 CR 1885					903-383-2513	
F&G							
FOSHEE SEPTIC	PO BOX 1045	CANTON	75103	24981 TEXAS 64		903-567-2816	
K-JOHN PORTABLE TOILETS	PO BOX 148	NECHES	75779-0148	1255 ACR 346	NECHES	903-584-9189	
L&L							
MORENO SEPTIC							
REPUBLIC SERVICES	PO BOX 130249	TYLER	75713		TYLER		
REYNOLDS (LARRY)	PO BOX 577	VAN	75790	6831 FM 1995	VAN	903-963-7269	
RICHARD (BOBBY)	5269 S FM 2869	HAWKINS	75765			214-484-6877	903.769.5181
RIDGLE'S SEPTIC SERVICE (JOEY)	PO BOX 822	BROWNSBORO	75756	8901 ST HWY 31 E	MURCHISON	866-617-5515	
SANCHEZ SEPTIC TANK SERVICE	312 E ROSEDALE ST	TYLER	75702	312 E ROSEDALE ST	TYLER	903-535-9673	
WEAVER SEPTIC SERVICE	368 DANIELS ST	RUSK	75785	1804 n Jackson St	Jacksonville	903-589-7929	JERRY EMERSON

Analyze Phase

7. Verification of Variables



Invoice not created

2012					
Gal Dischargd				SURCHARGE	
JANUARY	42440	\$1,273.20	\$29.46	\$1,302.66	
FEBRUARY	109570	\$3,287.10	\$76.05	\$3,363.15	
MARCH	73822	\$2,214.66	\$51.24	\$2,265.90	
APRIL	238585	\$7,157.55	\$165.59	\$7,323.14	
MAY	78540	\$2,356.20	\$612.19	\$2,968.39	
JUNE	60060	\$1,801.80	\$468.14	\$2,269.94	
JULY	83160	\$2,494.80	\$648.20	\$3,143.00	
AUGUST	60060	\$1,801.80	\$468.14	\$2,269.94	
SEPTEMBER	55440	\$1,663.20	\$432.13	\$2,095.33	
OCTOBER	41580	\$1,247.40	\$324.10	\$1,571.50	
NOVEMBER	73920	\$2,217.60	\$576.18	\$2,793.78	
DECEMBER	0	\$0.00	\$0.00	\$0.00	
917177				\$31,366.72	

While gathering information I found that there were times that the invoice was never created causing a delay in receiving the customers payment.

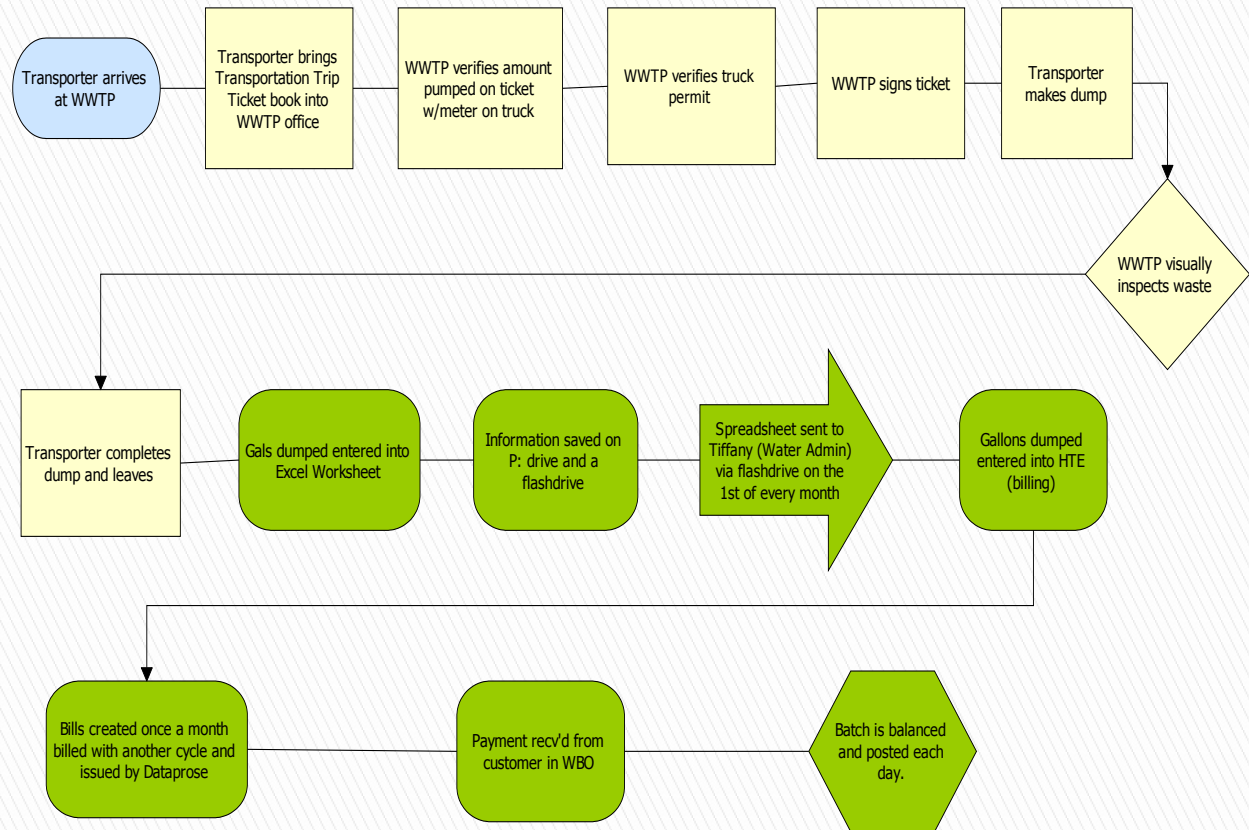
			11-Oct-12	
Republic Services P.O. Box 130249 Tyler, Texas 75713-0249				
INVOICE	101112			
(\$30.00 per Thousand)				
	Date	Volume	Total	
Residential	11-Aug-12	60,060	\$1,801.80	
	12-Sep-12	55440	\$1,663.20	
Wastewater Surcharge			\$900.37	
CURRENT BALANCE			\$4,365.27	
PAST DUE			\$0.00	
BALANCE DUE			\$4,365.27	
DUE DATE 10/25/2012				
*****PLEASE SEND PAYMENTS TO*****				
TYLER WATER UTILITIES P.O. BOX 2039 TYLER, TEXAS 75710 903-939-2724				

Improve Phase

9. Implement Improvements



The process was changed to have the data entered into a spreadsheet and saved to the P: drive for access by the Water Admin. office instead of sending the information via inter-office mail or by driving it out to the LPWTP. Payments are now mailed directly to the WBO for processing. We also implemented the no pay no dump process. If they have not paid by the due date the WTP is notified to not allow any dumping until all balances are paid in full.




Control Phase

12. Implement Controls



New procedures for billing was written specifically for septic billing with little deviation from regular cycle billing.

	Department	Water Administration
	Procedure	Setting up septic haulers in HTE to bill electronically

+

I. Purpose: To Process Septic billing using SunGard HTE

II. Scope: Cycle Billing

III. Definition: Setting up septic haulers accounts to bill electronically instead of manually

IV. Procedure:

To set up Septic Billing a separate Billing Cycle --Cycle 8-- was created.

The scheduled billing time is the second Wednesday of the month.

You will need the numbers from the Westside Treatment Plant to begin billing.

These numbers are located on the P: drive in the Septic Billing folder. The numbers are updated by the Westside Treatment Plant and should be completely updated by the last day of each month.

The spreadsheet will calculate the charges when the numbers are entered into each customer's worksheet.

To create the bill you will open the AS/400 and go to the Miscellaneous charge menu to create the charges for each customer with the information from the spreadsheet.

To get the Miscellaneous charges choose 23

```
HT135MHT          SunGard, Select Version 8.0.1          6/19/13
                  SunGard Application Menu          15:51:53

Select one of the following:          28. Contact Management

 3. Cash Receipts
 7. GMSA (Accounting)
12. Purchasing/Inventory
15. Work Orders/Facility Mgmt
23. Customer Information Systems
24. Land/Parcel Management
90. Sign off

Selection
==> _____          Version: 8.0.1.1.04
                               Date installed: 11/17/2012
F3=Exit  F5=Refresh  F8=Display messages  F10=Fast path
F14=Work with submitted jobs          F15=Cataloger  F24=More keys
Create meter reading entry transaction records cancelled.
```

Control Phase

12. Implement Controls



Billing was done in CIS instead of the manual process by creating a new cycle, creating new account numbers, and using HTE to process bills with the regular cycle billing.

```
UT305P01          CITY OF TYLER          6/20/13
                  Create Meter Reading Entry Transaction Records      08:55:53

Type information, press Enter.

Cycle/Route . . . . . 08 01
Period ending date . . . . . 06 13          MMY
Print meter reading sequence listing . . . . .  Y=Yes, Blank=No
Estimate all services or selected services . . . . . - 1=All services
                                                         2=Selected services
                                                         Blank=No estimating

F3=Exit
```

```
UTN1DFR          CITY OF TYLER          6/20/13
                  Charge Calculation Selection                        9:01:51

Position to . . .  8 01 Cycle/Route

Type options, press Enter.
1=Enable/disable selection 2=Change schedule 5=Display 8=View schedule

Opt  Cycle  Route  Period  Charge  Processing Status
-    8      1      7/13   Through Date  Trans. not created
-    11     2          End          Through Date  Trans. not created

F3=Exit  F6=Add  F7=Submit process  F9=Cycle/route maintenance
F14=Update billing message  F16=Calendar
```


Control Phase

12. Implement Controls



Instead of a manually produced invoice the customers now will receive a “blue bill” showing how much was dumped, the charges, and a due date.

P.O. Box 2039
Tyler, Texas 75710



811 W. Lovell Street
Tyler, Texas 75702

Septic Service
1234 Disney Blvd.
Tyler, Texas 75702

INVOICE# 1082013

(\$30.00 per Thousand)

Date	Volume	Total
Jan-13	57,000	\$1,710.00

Residential

CURRENT BALANCE: \$1,710.00

PREVIOUS BALANCE: \$3,875.00 Credit

BALANCE DUE: \$2,165.00 Credit

DUE DATE: 1/25/2013

*****PLEASE SEND PAYMENTS TO*****

TYLER WATER UTILITIES
P.O. BOX 2039
TYLER, TEXAS 75710



City of Tyler
Tyler Water Utilities
P.O. Box 336
Tyler, TX 75710

www.cityoftyler.org
For inquiries reference Account Number 169257-113736
Customer Service Office: (903) 531-1230 Fax: (903) 531-1240
Office Hours: Monday - Friday, 8:00 a.m. to 5:00 p.m.
After Hours Emergency: (903) 597-6541

7387 1 SP 0-140
A & A SEPTIC
1331 E ELM ST
TYLER TX 75702

ACCOUNT INFORMATION
ACCOUNT: 169257-113736
SERVICE ADDRESS: 1331 SEPTIC E ELM ST
CYCLE-ROUTE: 08-01
DUE DATE: 08/05/2013

A & A SEPTIC
1331 E ELM ST
TYLER TX 75702

Account Statement

ACCOUNT INFORMATION
ACCOUNT: 169257-113736
SERVICE ADDRESS: 1331 SEPTIC E ELM ST
CYCLE-ROUTE: 08-01
RATE CLASS: SEPTIC HALLER
TOTAL AMOUNT DUE: 3692.5
PAST DUE AMOUNT: 2109.5
* IF PAYMENT HAS BEEN MADE, THANK YOU. IF NOT, REMIT PAST DUE AMOUNT IMMEDIATELY TO AVOID INTERRUPTION OF SERVICE.

BILL DATE: 07/11/2013
DUE DATE: 08/05/2013

ACCOUNT ACTIVITY
LAST BILL: 2109.5
TOTAL PAID SINCE LAST BILL: .0
ADJUSTMENTS: .0
BALANCE FORWARD: 2109.5

YOUR MONTHLY USAGE
DATA NOT AVAILABLE

NEW CHARGES
June 51,800 gal drop: 1054.0
Trip Ticket Book 2: 29.0
TOTAL CURRENT CHARGES: 1583.0

ACCOUNT BALANCE
NEW CHARGES DUE BY 08/05/2013: 1583.0
PAST DUE AMOUNT: 2109.5
Service subject to interruption for past due amount.
TOTAL AMOUNT DUE: 3692.5

SPECIAL MESSAGE
PAY ONLINE WITH CREDIT OR DEBIT CARD AT www.cityoftyler.org. Click I WANT TO in the top ribbon and follow the links. If you need assistance call the Water Business Office at (903) 531-1230

PLEASE FOLD ON PERFORATION BEFORE TEARING - RETURN BOTTOM PORTION WITH YOUR PAYMENT
MAKE CHECKS PAYABLE TO THE CITY OF TYLER

City of Tyler

ACCOUNT INFORMATION
ACCOUNT: 169257-113736
SERVICE ADDRESS: 1331 SEPTIC E ELM ST
CYCLE-ROUTE: 08-01
DUE DATE: 08/05/2013

A & A SEPTIC
1331 E ELM ST
TYLER TX 75702

AMOUNT DUE
NEW CHARGES DUE BY 08/05/2013: 1583.0
PAST DUE AMOUNT: 2109.5
* IF PAYMENT HAS BEEN MADE, THANK YOU. IF NOT, REMIT PAST DUE AMOUNT IMMEDIATELY TO AVOID INTERRUPTION OF SERVICE.
TOTAL AMOUNT DUE: 3692.5

AMOUNT ENCLOSED:
REMIT PAYMENT TO:

0001692570001337360003692500000210950001583000

Financials



Hard Dollar Savings	\$	69,096
Total Savings	\$	69,096

**Improve Septic Billing
Data and Cost Calculation
June 2013/June 2013**

Data		Hard Dollar Calculations				
Month	Average Revenue Received	Initial Average Revenue Received	Increased Revenue Per Month			
June	22,624	\$9,280	\$ 13,344			
July	34,813	\$9,280	\$ 25,533			
August	15,251	\$9,280	\$ 5,971			
September	12,265	\$9,280	\$ 2,985			
October	11,313	\$9,280	\$ 2,033			
November	12,590	\$9,280	\$ 3,310			
December	10,813	\$9,280	\$ 1,533			
January	15,371	\$9,280	\$ 6,090			
February	17,580	\$9,280	\$ 8,300			
March		\$9,280				
April		\$9,280				
May		\$9,280				
June		\$9,280				