



LWP – Update 2016-1

March 29th, 2016

Prepared By :
Travis J Miles, President

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Attachments:

2015 Municipal Water Usage Report
Screen Shot of New SCADA System

1. INTRODUCTION

This Lost Water Plan was developed to provide an outlook and action plan for Suburban to minimize/control its annual water loss as effectively as possible. The Lost Water Plan was ordered by the Kansas Corporation Commission through Docket No. 13-SUBW-744-CON and requires semi-annual updates, after the initial plan filing until Suburban's water loss percentage is in compliance.

The lost water plan is intended to provide an overview of the methods and processes that Suburban has and will continue to use to effectively monitor and maintain an acceptable amount of lost water.

2. BACKGROUND INFORMATION

Suburban is a privately owned water utility in Basehor, Kansas. Suburban currently provides water service to approximately 1,744 residential/commercial customers, along with wholesale water to Rural Water District #6, #9, and #10 of Leavenworth County, Kansas. Suburban currently has two sources of water supply and is currently developing a third supply within the Kansas River Basin.

3. 2015 MUNICIPAL WATER USAGE REPORT FILING

Suburban for the period from January 1st, 2015 through December 31st, 2015, produced/purchased a combined total of 190.45 million gallons of water. The total unaccounted for water for 2015 was 27.72 million gallons of water or 13 %, which is higher by 2% than our 2014 unaccounted for water.

4. INCREASED UNACCOUNTED FOR WATER – OCTOBER 2015

In October 2015 Suburban's unaccounted for water reached 10.78 million gallons, representing 40% of the total unaccounted for water for 2015. During the month of October Suburban experienced a water leak on a valve in the distribution system approximately 2 miles west of our connection with BPU. The leak occurred on a 12" Gate Valve as a result of the bolts that held the valve together had rusted to the point that they allowed a portion of the valve to separate and water to leak. Due to the location of the leak and its close proximity to our connection with BPU the leak did not result in a decreased amount of pressure in the distribution that system would have alerted us to a leak or problem in the system. The leak was identified at months end and repaired.

Prior to this leak occurring Suburban had already take proactive steps to better enhance our monitoring of the distribution system. In August 2015, Suburban contracted with Microcomm, a Telemetry/SCADA system provider, to develop and install a new monitoring system for the distribution system. This system now monitors the flow rate and daily production/purchase amounts from all sources of supply for Suburban, along with other key data points throughout the system. This system now monitors in real time the flow rate from BPU, along with daily purchase amounts. The system has an alarm feature that will notify system operators to any problems in the system, via telephone to alert them should a problem occur. The system has already proven to be very effective in identifying leaks in the distribution system, with an occurrence in December 2015 that resulted in system operators being notified of a leak in the system approximately 15 minutes, before the first customer reported reduced water pressure and resulted in the leak being identified and shut down within 45 minutes.

Suburban estimates that this leak in October 2015, resulted in a loss of approximately 9 million gallons of water, adjusting for this one time leak that occurred Suburban would have realized an adjusted unaccounted for water percentage of ~10% for the 2015.

5. INSTALLATION OF NEW INFRASTRUCTURE STANDARDS

Suburban continues to enforce our standards for the installation of all replacement and/or installation of any new infrastructure, throughout our service territory. Those standards include the proper installation, specific manufactures of materials, pressure testing of all new main installations, and proper inspection by Suburban field staff prior to mains being put into service. Suburban believes that these installation standards will ensure the long term stability of our infrastructure and effectively control any new potentials for lost water.

6. WATER LOSS GOALS

Suburban's objective is to maintain an acceptable amount of unaccounted for water ("UFW") on an annual basis, which is at or below the regional and state averages. Suburban's goal is to maintain a lost water percentage at or below 10% as compared to our annual production amounts, including water both pumped and purchased by the company.

**Complete Summary for SUBURBAN WATER INC
Person Id: 24951
1216 N 155TH ST
PO BOX 588, BASEHOR, KS 66007**

Date Submitted: 01-MAR-16
Reported by: Travis J Miles, travis@suburbanwaterinc.com, 913-238-0040
Owner

Part A: Points of Diversion Summary

Total water used: 55,676,621 Gallons (171 AF)

File No. 39287-00 2772'N 2924'W 22-11-22E SE SE NW CIN: 1 GEO CTR

Reported under the wells in the battery

File No. 39287-00 2656'N 2995'W 22-11-22E SE SE NW CIN: 2 BATT 1 OF 4 WELLS; MORAN WELL _2

Begin Meter Reading: 18466500

End Meter Reading: 19541200

2nd Begin Meter Reading: 0

2nd End Meter Reading: 9338899

Hours: 0

Rate: 25
Quantity: 10,413,599 Gallons (Multiple Meter)
Comment: COM/W 39287-00, SEC 22, ID #3

File No. 39287-00 2682'N 2821'W 22-11-22E SE SE NW CIN: 3 BATT 1 OF 4 WELLS; MORAN WELL _3

Begin Meter Reading: 57844000
End Meter Reading: 59971800
2nd Begin Meter Reading: 0
2nd End Meter Reading: 15617603
Hours: 0
Rate: 0
Quantity: 17,745,403 Gallons (Multiple Meter)

File No. 39287-00 2886'N 2841'W 22-11-22E SE SE NW CIN: 4 BATT 1 OF 4 WELLS; MORAN WELL _4

Begin Meter Reading: 82031500
End Meter Reading: 83300900

2nd Begin Meter Reading: 0
2nd End Meter Reading: 11949578
Hours: 0
Rate: 20
Quantity: 13,218,978 Gallons (Multiple Meter)
Comment: COM/W 39287-00, SEC 22, ID #3

File No. 39287-00 2864'N 3040'W 22-11-22E SE SE NW CIN: 7 BATT 1 OF 4 WELLS; MORAN WELL _1

Begin Meter Reading: 61139000
End Meter Reading: 62108500
2nd Begin Meter Reading: 0
2nd End Meter Reading: 9395177
Hours: 0
Rate: 25
Quantity: 10,364,677 Gallons (Multiple Meter)
Comment: COM/W 39287-00, SEC 22, ID #3

File No. 41844-00 2772'N 2924'W 22-11-22E SE SE NW CIN: 1 GEO CTR

Reported under A 39287 00

File No. 41844-00 2656'N 2995'W 22-11-22E SE SE NW CIN: 2 BATT 1 OF 4 WELLS; MORAN WELL _2

Reported under A 39287 00

File No. 41844-00 2682'N 2821'W 22-11-22E SE SE NW CIN: 3 BATT 1 OF 4 WELLS; MORAN WELL _3

Reported under A 39287 00

File No. 41844-00 2886'N 2841'W 22-11-22E SE SE NW CIN: 4 BATT 1 OF 4 WELLS; MORAN WELL _4

Reported under A 39287 00

File No. 41844-00 2864'N 3040'W 22-11-22E SE SE NW CIN: 7 BATT 1 OF 4 WELLS; MORAN WELL _1

Reported under A 39287 00

File No. 42733-00 2678'N 2705'W 22-11-22E SE SE NW CIN: 8 MORAN WELL _5

Begin Meter Reading: 755700
End Meter Reading: 1119100
2nd Begin Meter Reading: 0
2nd End Meter Reading: 3570564
Hours: 0
Rate: 10
Quantity: 3,933,964 Gallons (Multiple Meter)
Comment: COM/W 39287-00, SEC 22, ID #3

File No. 49208-00 12'N 50'W 22-12-21E SE SE SE CIN: 3

Reported non-use: Not Completed

Part B: Monthly Water Use Summary

(all amounts are in 1000 gallon units)

	Column 1 Raw Water Diverted	Column 2 Water Purchased From All Sources	Column 3 Water Sold to Public Suppliers	Column 4 Water Sold to Industrial, Stock Bulk Customers	Column 5 Water Sold to Residential and Commercial Customers	Column 6 Metered Water Provided Free	Column 7 Unaccounted for Water	Column 8 % of Unaccounted for Water
Jan	5,049	6,314	2,185	0	7,721	54	1,403	12
Feb	4,548	9,770	5,572	0	7,030	33	1,683	12
Mar	4,911	9,654	4,183	0	8,410	30	1,942	13
Apr	4,375	7,834	2,588	0	8,152	40	1,429	12
May	3,987	8,857	3,229	0	9,185	41	389	3
Jun	5,024	10,348	4,296	0	9,065	45	1,966	13
Jul	4,933	12,982	5,365	0	10,470	72	2,008	11
Aug	4,975	13,764	5,639	0	11,511	73	1,516	8
Sep	4,372	13,427	5,353	0	11,370	87	989	6
Oct	3,869	23,170	4,606	0	11,585	60	10,788	40
Nov	4,871	9,086	4,498	0	8,105	47	1,307	9
Dec	4,763	9,566	4,029	0	7,941	58	2,301	16
Total	55,677	134,772	51,543	0	110,545	640	27,721	13

Part C: Population, Service Connections and Water Rates

1. Estimate the number of persons served directly by your distribution system: 4278
2. Number of ACTIVE water service connections as of December 31st 2015:
 - a) Residential: 1711
 - b) Commercial/Institutional: 33
 - c) Industrial: 0
 - d) Pasture/Stockwater/Feedlot: 0
 - e) Other Connections: 3
3. Other Connection Explanation: RWD #6, RWD #9, RWD #10 Wholesale Connections
4. Total ACTIVE Service Connections: 1747
5. If you are a city, how many of the active residential water service connections are located outside of your city limits: 0

Part E: Water Purchased or Sold Summary
(all amounts are in 1000 gallon units)

BOARD OF PUBLIC UTILITIES(KC) , Pers Id: 20297, Seq no: 1, PURCHASED												
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT
6,314	9,770	9,654	7,834	8,857	10,348	12,982	13,764	13,427	23,170	9,086	9,566	134,772
LEAVENWORTH RWD 09 , Pers Id: 15276, Seq no: 3, SOLD												
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT
428	3,603	2,093	553	1,007	2,124	3,200	2,530	2,083	1,585	1,813	1,515	22,534
LEAVENWORTH RWD 10 , Pers Id: 34371, Seq no: 4, SOLD												
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT
786	1,036	988	1,055	1,166	1,040	1,112	1,653	1,658	1,763	1,701	1,594	15,552
LEAVENWORTH RWD 06 , Pers Id: 33868, Seq no: 2, SOLD												
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT
971	933	1,102	980	1,056	1,132	1,053	1,456	1,612	1,258	984	920	13,457

View

- System Display
- Station Display
- Graphic Screens
- Trend Graph
- Trend w/Penfiles
- Trend Area Graph
- Reports

Control

- High/Low Setpoints
- Hand/Off/Auto
- Control Groups

Alarms

- Active Alarms
- Event Log
- Acknowledge

Security

Not Logged in

User

Pass

Login Logout

Select Screen and Zoom

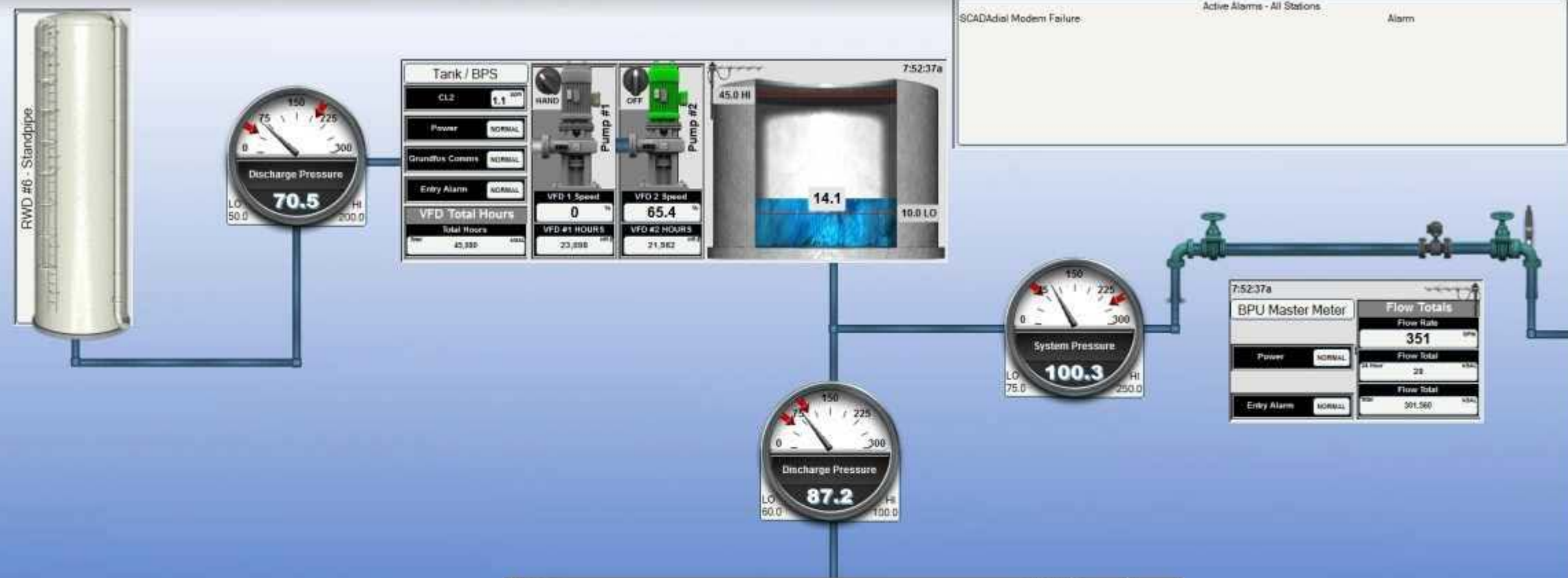
Travis Office - New Normal Switch to Full Screen



Travis Office - New



SCADA: Modem Failure Active Alarms - All Stations Alarm



Wells

CL2	3.6
Power	NORMAL
Entry Alarm	NORMAL

Flow Totals

Total Flow Rate	113
Total 24Hr Flow	0
Total Flow	42,274

Well #	Flow Rate	Flow Total
Well #1	19 GPM	11,963
Well #2	26 GPM	12,653
Well #3	32 GPM	19,390
Well #4	28 GPM	15,310
Well #5	8 GPM	4,740

Scale #1 **Scale #2**

Scale #1	0.0
Scale #2	0.0

