# COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION	)
INTO THE MEASURING,	)
<b>RECORDING, AND REPORTING OF</b>	) CASE NO. 2018-00394
WATER LOSS BY KENTUCKY'S	)
JURISDICTIONAL WATER	)
UTILITIES	)

# **RESPONSE OF**

# **BUTLER COUNTY WATER SYSTEM, INC.**

# TO

# **COMMISSION'S REQUEST FOR INFORMATION**

# **DATED DECEMBER 18, 2018**

FILED: January 15, 2019

# COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION)INTO THE MEASURING,)RECORDING, AND REPORTING OF) CASE NO. 2018-00394WATER LOSS BY KENTUCKY'S)JURISDICTIONAL WATER)UTILITIES)

# CERTIFICATION OF RESPONSE OF BUTLER COUNTY WATER SYSTEM, INC. TO COMMISSION'S REQUEST FOR INFORMATION

This is to certify that I have supervised the preparation of Butler County Water System, Inc.'s Response to the Commission's Request for Information. The response submitted on behalf of Butler County Water System, Inc. is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.

Date: \_ 1/15/19 \_\_\_\_

John M. Dix, General Manager Butler County Water System, Inc.

# CASE NO. 2018-00394

# **Response to Commission's Request for Information**

# Question No. 1

- Q-1. Explain in detail the manner in which you measure, calculate, and track water loss, and:
  - a. Identify whether you use any manual form (including Excel spreadsheet) or electronic or mechanized system to calculate and track water loss.
  - b. Provide a copy of any form used (including Excel spreadsheet).
  - c. Identify the source of any form or system used.
- A-1. Butler County Water System, Inc. (BCWS) produces water at its' treatment plant located in Morgantown, KY and distributes the finished water into sixteen district metered areas (DMAs). Each DMA has a master meter that measures the volume of water supplied into the area. For each DMA, the following information is collected and reported monthly on the BCWS's Statistics by Metering Location Report:
  - Water Purchased
  - Water Sold
  - Total Water Lost
  - Own Use Water
  - Accounted for Water
  - Unaccounted for Water
  - PSC Water Loss Percentage

Total Water Lost is calculated as the difference between water purchased and water sold. Own Use Water is the sum of water used for flushing, fire protection, and tank maintenance. Accounted for Water is the sum of water lost and attributed to specific main line leaks, service line leaks, and tank overflows. Unaccounted for Water is calculated as follows: Total Water Lost less Own Use Water less Accounted for Water. PSC Water Loss Percentage is calculated as follows: (Total Water Lost less Own Use Water) divided by Water Purchased.

- Q-1 a. Water System's spreadsheets for tracking water loss calculation sheet in Excel.
- Q-1 b. See attached Exhibit 1
- Q-1 c. Water System created form and system.

# CASE NO. 2018-00394

# **Response to Commission's Request for Information**

# Question No. 2

- Q-2. Explain in detail your understanding of the information to be provided in each of the categories on the Water Statistics page (reference page 30) of the annual report required of jurisdictional water utilities, accessed through the Commission's website.
- A-2. Water Statistics (reference Page 30)
  - 1. This section includes all water produced and purchased.
  - 2. Total water produced.
  - 3. Total water purchased.
  - 4. Total amount of gallons produced and purchased.
  - 6. This section represents the Total of water sold to system customers.
  - 7. Total of water sold to Residential Customers only.
  - 8. Total of water sold to Commercial Customers only.
  - 9. Total of water sold to Industrial Customers only.
  - 10. Total water sold through a Bulk Loading Station.
  - 11. Total of water resold.
  - 12. Other water sold not included in lines 7-11.
  - 13. Total of all Water Sold.
  - 15. The section represents all Other Water that is Used.
  - 16. Water used for water treatment purposes.
  - 17. Water used for wastewater treatment plant purposes.
  - 18. Estimated water used for other flushing.
  - 19. Estimated water used for Fire Department usage.
  - 20. Estimated water used for meter testing, weather related events, and other system issues.
  - 21. Total of water used for Other Usages is totaled here.
  - 23. Water Loss.
  - 24. Estimated water lost due to tank overflows.
  - 25. Estimated water loss due to line breaks.
  - 26. Estimated water loss due to line leaks
  - 27. Other estimated water loss not included on Line 24 through Line 26.
  - 28. Total estimated water loss.
  - 32. Water Loss Percentage.
  - 33. Total Water Loss Percentage as a percentage of Total Water Produced or Purchased.

## CASE NO. 2018-00394

## **Response to Commission's Request for Information**

# Question No. 3

- Q-3. State any questions you have regarding how to use the updated Commission Form described and attached as Appendix A to this Order.
- A-3. The Water System does not have any questions.

## CASE NO. 2018-00394

#### **Response to Commission's Request for Information**

#### Question No. 4

#### **Responding Witness: John M. Dix**

- Q-4. State any suggestions or improvements you have for the updated Commission Form described and attached as Appendix A to this Order.
- A-4. Butler County Water System, Inc., suggests that water loss from Excavation Damages (line 26 of Appendix A) resulting from no fault of the utility be allowed to be accounted for in Other Water Used.

The Water System also suggests that water loss from Theft (line 27 on Appendix A) be allowed to be accounted for in Other Water Used. Water lost through theft is similar water sold but not paid for.

# CASE NO. 2018-00394

## **Response to Commission's Request for Information**

#### **Question No. 5**

- Q-5. State any questions you have regarding how the information in the updated Commission Form described and attached as Appendix A to this Order is to be incorporated into annual reports.
- A-5. The Water System does not have any questions.

#### CASE NO. 2018-00394

#### **Response to Commission's Request for Information**

#### Question No. 6

#### **Responding Witness: John M. Dix**

- Q-6. State any concerns you have regarding the use of the updated Commission Form described and attached as Appendix A to this Order.
- Butler County Water System, Inc. understands the desire and need of the A-6. Commission to establish standards for reporting water loss from all jurisdictional utilities. The Water System further acknowledges that water loss is one of *many* evaluation tools that should be used to evaluate the operational efficiency of a utility. There are many facets to water loss beyond leaks that contribute to water loss such as customer and purchase meter accuracy, billing system accuracy, and inherent system losses due to geographical and topographical configuration as noted by the American Water Works Association (AWWA) in its Water Audit Software. The 15% water loss guideline for rate making was arbitrarily established decades ago. Similar to what was established with meter testing through KRS 278.210 Subsection (4), water loss should be evaluated based on what is most cost effective for the utility and its customers in lieu of a fixed 15%. The AWWA Water Audit Software is the closest tool that provides those considerations.

Furthermore, the Water System contends that the Commission is inappropriately extrapolating the use of the "15%" water loss baseline to a position where it cites utilities for deficiencies such as "Utility is failing to operate its facilities so as to provide adequate and safe service to its customers as required by 807 KAR 5:066, Section 7, due to water loss exceeding 15 percent." (i.e., Simpson County Water District – July 3, 2017 and Butler County Water System, Inc. – March 9, 2018). The Water System contends that this is clearly not the intent of regulations. Section 6 of 807 KAR 5:066 clearly addresses how water loss is to be utilized by the Commission. Paragraph (3) of this section states "...for rate making purposes a utility's unaccounted-for water loss shall not exceed fifteen (15) percent of total water produced and purchased, excluding water used by a utility in its own operations." The regulations are very clear that water loss is to be considered for rate cases only.

### CASE NO. 2018-00394

#### **Response to Commission's Request for Information**

#### **Question No. 7**

- Q-7. State whether you believe it is reasonable, proper, and appropriate for the Commission to require jurisdictional water utilities to maintain and use the updated Commission Form described and attached as Appendix A to this Order. Fully explain your answer
- A-7. Butler County Water System, Inc. believes it is reasonable, proper, and appropriate for the Commission to establish standards for water loss reporting and require utilities to use and maintain the standard reporting method. The Water System has suggested modifications to the proposed methodology suggested by the Commission in its responses to Questions 4 and 6 herein.

#### **CERTIFICATE OF SERVICE**

In accordance with 807 KAR 5:001, Section 8, I certify that Butler County Water System, Inc.'s electronic filing of this Response is a true and accurate copy of the same document being filed in paper medium; that the electronic filing was transmitted to the Public Service Commission on January 15, 2019; that there are currently no parties that the Public Service Commission has excused from participation by electronic means in this proceeding; and that an original paper medium of this Response will be delivered to the Public Service Commission within two business days.

John M. Dix, General Manager

John M. Dix, General Manager Butler County Water System, Inc.

# EXHIBIT 1

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#### BUTLER COUNTY WATER SYSTEM Statistics By Metering Location For Reporting Period Of: <u>December 2017</u>

Report Status:	FINAL
Date:	1/16/2018

	Master Meter Source	Billing	L	eak Detectio	on	Read	Dates	Water Pro	duced (Gals)	Water S	old (Gals)	Total	Lost (Gals)	Own Us	se (Gals)	Accounte	d For (Gals)	Unaccour	nted For (Gals)	Unacco	unted %	PS	С%	MM
Cod	Descripton	Cycle	Date	Leaks(Mo)	Leaks(Yr)	From	To	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Month	Year	Source
	Treatment Plant	2	05/21/15	N/A	NIA	10/18/17	11/20/17	2,325,900	25,484,124	1,702,640	20,695,120	623.260	4.789.004	300.000	1,416,984	272.160	1.922.640	51,100	1,449,380	2.2%	E 70/	12.00	10.00/	
										1,568,870	20,586,080	655,230	3,623,420	300,000	272,403		1,103,880	655,230				13.9%		TrtPlant
	Aberdeen	2	03/18/15	N/A		10/23/17	11/21/17	2,224,100	24,209,500	1,253,160		311.840		25.200		-				29.5%		29.5%		Aberdeen
82		4	12/05/15	N/A		10/24/17	11/27/17	1,565,000	18,116,100		15,179,000		2,937,100	25,200	313,905	-	118,800	286,640	2,504,395		13.8%		14.5%	LnOak
82/		4	04/11/14	N/A		10/24/17	11/27/17	1,335,000	14,986,000	1,197,570	13,467,730	137,430	1,518,270	-	39,120	-	324,629	137,430	1,154,521			10.3%		Reedyville
	Highway 411	4	04/11/14	N/A	N/A		11/29/17	555,000	6,359,700	509,180	5,672,620	45,820	687,080		231,945	-	18,720	45,820	436,415	8.3%		8.3%	7.2%	Hwy 411
83	Welches Creek	6	07/21/17	N/A	N/A	10/26/17	11/19/17	2,671,400	30,680,300	2,366,410	25,779,920	304,990	4,900,380	33,640	1,070,605		817,534	271,350	3,012,241	10.2%	9.8%	10.2%	12.5%	WelCrk
83/	Elfle	6	11/09/17	N/A	N/A	10/30/17	12/01/17	1,799,900	19,924,200	1,446,530	16,253,910	353,370	3,670,290	-	4,500	338,540	1,532,156	14,830	2,133,634	0.8%	10.7%	19.6%	18.4%	Elfie
84	South Hill	8	10/21/15	N/A	N/A	11/02/17	12/05/17	1,910,000	20,707,000	1,329,190	14,741,690	580,810	5,965,310	3,000	106,130	475,200	4,395,960	102,610	1,463,220	5.4%	7.1%	30.3%	28.3%	S Hill
85	Rochester	8	03/20/17	N/A	N/A	11/01/17	12/04/17	1,425,200	14,200,900	916,400	10,836,770	508,800	3,364,130	21,000	198,266	489,600	2,586,000	(1,800)	579,864	-0.1%	4.1%	34.2%	22.3%	Rochester
86	Muhlenburg	8	08/25/15	N/A	N/A	10/31/17	12/01/17	1,069,800	14,157,800	810,230	10,564,600	259,370	3,593,200	-	132,600	-	1,043,280	259,370	2,417,320	24.2%	17.1%	24.2%	24.4%	Mutenburg
87	Woodbury Road	10	01/16/13	N/A	N/A	11/06/17	12/07/17	845,000	10,478,000	797,620	9,006,980	47,380	1,471,020	-	-	-	452,841	47,380	1,018,179	5.6%		5.6%		Woodbury
88	Loganeport	10	10/10/14	N/A	N/A	11/06/17	12/07/17	1,408,200	17,794,600	1,099,000	14,325,110	309,200	3,469,490	-	1,100		1,328,162	309,200	2,140,228	22.0%	12.0%	22.0%	19.5%	LgSport
89	Bowling Green Road #3	12	07/29/15	N/A	N/A	11/07/17	12/11/17	1,521,000	19,485,000	1,337,230	15,852,050	183,770	3,632,950	-	581,100	259,200	1,976,150	(75,430)	1,075,700	-5.0%	5.5%	12.1%	15.7%	BG#3
89/	Sandy Creek	12	03/07/14	N/A	N/A	11/08/17	12/13/17	920,000	11.276.000	763,430	9,209,890	156.570	2.066.110	-	336.583	-	298,920	156.570				17.0%	15.3%	Sandy Crk
	Highway 79 South	14	03/17/15	N/A	N/A		12/14/17	2,072,000	24,050,000	1,869,080	21,963,248	202,920	2.086.752	-	204,800	449,280	728,280	(246,360)	1,153,672			9.8%	7.8%	Hwy 79 S
	Bowling Green Road #2	18	12/05/15		N/A	11/15/17	12/16/17	3,227,000	37,505,000	2,522,550	29,398,790	704,450	8,106,210	20,000	405,150	345,600	4,968,030	338,850	2,733,030	10.5%		21.2%		BG #2
																								00 #2
	Totals				<u> </u>			26,874,300	309,414,224	21,489,090	253,533,508	5,385,210	55,880,716	402,840	5,315,191	2,629,580	23,615,982	2,352,790	26,949,543					
	% of Water Produced							<u>100.0%</u>	<u>100.0%</u>	80.0%	81.9%	20.0%	18.1%	1.50%	1.72%	9.8%	7.6%	<u>8.8%</u>	8.7%	8.8%	8.7%	<u>18.5%</u>	<u>16.3%</u>	
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#### E

ENTER Master Meter Readings;						5-1-4-2	14			17						_
	Multiplier	Dec-16	Jan-17	Usage	1000	Eeb-17 Usage	Mar-17	Usage	<u>Apr</u> -	<u>Usage</u>	May	Usage	Jun	Usage	<u>-lul</u>	Usage
80 Treatment Plant	1000	-tests	-	22,669,000	-	24,641,000	1000	28.321,000	-	23.957.000	and the second second	22,551,000	-	28,372,000	citration.	25.043.000
WTP - Chlorine Meter 3"	-100	1192680	11 March	(56,700)	Taxa.	(58,100)	1000	(66.300)	1000	(59,800)	177.77	(58,100)	-	(72,100)	11970	(64,000)
WTP - Chlorine Meter 1"	-10	0	0						-					-	1	-
WTP - SLUDGE Meter 2*	-100	Ō	. 9			-	100 C	-						-	2	-
Aberdeen	-1000	344334	34680	(2,472,000)	Common A	(2,497,000)	and the second sec	(2,650,000)	1.000	(2,299,000)		(2,114,000)	3000	(2,457,000)	36126	(2,444,000)
Welches Creek	-1000	411070	414 0	(3,066,000)	1.00	(3,370,000)	1000	(3.867,000)	a report	(2.982.000)		(3,313,000)	124.7	(4,223,000)	438/374	(3,633,000)
Leonard Oak #2	-1000	680148	683127	(2,979,000)	Institut 1	(3,120,000)	Transfer 1	(3.390.000)		(2.725.000)		(2.813.000)	-	(3,487,000)	702232	(3,570,000)
Woodbury Road #2	-1000	126111	126828	(717.000)	100	(819,000)	1000	(861,000)		(856,000)	2-24	(738,000)	14 10	(999,000)	1320	(989,000)
Bowling Green Road #3	-1000	1768661	1.12000	(6.793.000)		(7,136,000)	1000	(8,382,000)	1. Pall No.	(7,212.000)	1000	(6,676,000)	- Andrews	(8,119,000)	182017	(7,195,000)
South Hill	-1000	732933	73624	(3,309,000)		(3,857.000)		(4.604.000)	144	(3.856,000)		(3,403.000)		(4,447,000)	/ source	(4,015,000)
Logansport	-100	274270B	27562	(1,350,700)	-	(1,257,200)		(1,639,300)	125	(1,275,500)	2622	(1,203,700)	_	(1,631,300)	2840337	(1,405,200)
81 Aberdeen	1000	344334		2,472,000	-	2,660,000	1000	2,487,000	2400	2,217.000	-	2,275,000	-	2,378,000	36134	2,521,000
Highway 79 North	-100	<u>151</u>	151		<u>_2</u>							-			1.51	-
Gilstrap	-100	99840			-		-								Same .	-
Dexterville	-100	557431	2000	(525,500)	-	(631,400)	2020	(569.600)		(570,6 <b>0</b> 0)		(508,600)	2	(352,400)	<u>594049</u>	(503,700)
82 Leonard Oak #2	1000	680253	10004	3,106,000	1000	3.438.000	1000	2,912,000		2,751,000	-	3,228,000		3,185,000	703021	4,154,000
Reedyville	-1000	101163		(1.163.000)	-	(1,263,000)	and the second second	(1.160.000)		(951.000)		(1,158,000)	-	(1,111,000)	100402	(1,494,000)
Highway 411	-1000	36774	100	(598,000)	1.00	(609,000)	-	(382,000)	-	(468,000)	- North	(536,000)		(518,000)	4047	(585,000)
		<u>0</u>			1										2	
82A Reedyville	1000	101163	102326	1,163,000		1,263,000	200	1,160,000		951.000	-	1,158,000	Advanced in	1,154,000	109571	1,559,000
82B Highway 411	1000	36794	37462	668,000		429,000		476,000	100	481,000	-	521,000		516,000	40505	620,000
Highway 411 / Grayson County	100	2661	1000	-	20	· · ·	200	-	-22		-	-		-	121.1	-
83 Welches Creek	1000	411840		3,202,000	-	3,305,000	-	3,720,000	-	2,834,000	_	3,411,000	1.000	4,609,000	43684	3.922.000
Highway 79 North	1000	151	1000	0,202,000		0,000,000		0,720,000		2,004,000		5,471,000		4,003,000	151	5,522,000
Elfie	-100	1375993	1383671	(767,800)	-	(839,000)	1000	(1,122,100)	11100	(681,300)	-	(1,028,700)	and the second	(1,434,100)	1447874	(1,315,100)
200				1		(*******		(				(		()		()
83A Eltie	100	1375993	1264 10	815,700	1040	791,100	200	1,145,800	a diam	710,500	-	1,069,000	1400	1,395,900	145006	1,478,700
Dexterville	100	558446	11400	635,500	-	519,300	_	588,700	1.000	607,300	_	482,100	1.5.1	393,700	59581	509,900
A. Pault Hill	1000	734246	-0816	3.937.000		3,614,000	-	4,127,000	-	4,328,000		3,605,000	200	4,076,000	76281	4,884,000
84 South Hill Rochester	-1000	517482	11114	(2.312.000)		(2,188,000)	100	(2,506,000)	200	(2,560.000)	1000	(2,036,000)		(2,316,000)	7628	(2,670,000)
nochester	-1000	517402		(2.012.000)		(2,100,000)		(1,000,000)	_	(2,000,000)	_	(2,000,000)		(2,010,000)		(2,070,000)
85 Rochester	1000	517336	110104	2.438.000	-	2,106,000		2,588,000	and the second	2,476,000		1,909,000	200	2,443,000	Contract of	2,685,000
Muhlenburg	-100	2409498	2021020	(1,213,800)	-	(1,044,600)	-	(1,197,500)	1 Caller	(1,198,700)	and the second	(959,300)	Server.	(1,274,100)	249252	(1,414,500)
86 <u>Muhlenbura</u>	100	2409498	1001004	1.066,600		1,191,800		1,153,200	-	1,212,100	-	990,200	10.05	1,274,100	249252	1,414,500
87 Woodbury Road #2	1000	126464	127255	791,000	200	865,000	-	830,000		798,000	100	825,000	1000	1,004,000	13267	1,094,000
Hwy 403 4"	1000	152	1.4	-			-							-	144	-
									- C							
88 Logansport	100	<u>2749657</u> 0	2763702	1,404,500		1,467,600		1,314,500	and a	1,290,700	100	1,503,500		1,419,300	(1963)	1,876,300
89 Bowling Green Rd #3	1000	1772455	178042	7,973,000	- Conservation	6,930,000		7,435,000	-	7,830,000	1000	6,940,000		7,538,000	1825924	8,823,000
Highway 626	1000	118	1.1						1.00		100	3,000		-	6.24	
Bowling Green Road #2	-1000	366225	and,	(3.317.000)	-	(2,669,000)	100	(2.833.000)	2.4.2	(3.068.000)	- Acces	(2,597,000)	_	(2,897,000)	united a	(3,585,000)
Highway 79 South	-1000	424795	4262.1	(2.015.000)	and the second	(1,800,000)		(1,756,000)	A second	(2,003,000)	1000	(1,774,000)	1.00	(1,960,000)	438	(2,387,000)
Sandy Creek	-1000	46672	47602	(930,000)	222	(782,000)	-	(1.700.000)	1250	(830.000)	-	(860,000)		(1,000,000)	-1923	(1,190,000)

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89A Sandy Creek	1000	46720	4383	906,000	- IRAN	850,000	46554	720,000	1000	870,000	98784	930,000	49828	920,000	1000	1,200,000
90 Highway 79 South	1000	425138	427020	1,882,000	42896	1,940,000	450576	1,716,000	1000	1,865,000	434501	1,962,000	436035	1,852,000	-10007	2,282,000
Highway 626	-1000	118	118		110		118	-			101	(3,000)	171	-	(1)	-
East Logan County	-100	20			20		20				10		20		10	
Orange Cemetery Rd 4"	-1000	680		(20.000)	457	(7.000)		(18,000)		(30,000)	151		1993	(5,000)	- 293	(33,000)
orange contenty the 4			_	( and a set of the set							-			0.000	_	
91 Bowling Green Rd #2 Hwy 403 4*	1000 -1000	<u>367025</u> <u>152</u>	-7	3,256,000	152	2,652,000	325230	2,787,000	1.00	3,067,000	ant ave	2,705,000	204325	2,808,000	26745	3,593,000
Orange Cemetery Rd 4"	1000	106	100	20,000	100	7,000	20	18,000		30,000	-	5,000	.988		100	33,000
TOTALS - Master Meter Readings				24,799,800		24,722,500		24,795,400		24,649,700		24,293,400		27,035,000		29,199,900
				ок		OK		OK		OK		OK		OK		OK
ENTER Reading Adjustments:				Jan-17		Feb-17		Mar-17		Apr-17		May-17		Jun-17		Jul-17
80 Treatment Plant			Mag Motor Adj -2.77%	(611,006) Meg	Meter Adj -2,77%	(664,159) Mag N	leter Adj -2.77%	(763,347) Mag 1	Meter Adj -2.77%	(645,722) Ma	g Moter Adj -2.77%	(98,042) <-	-5 Days Adjust			
81 Aberdeen			-				-		-			-				(252,900)
82 Leonard Oak			-				_		-							(202,000)
82A Reedyville			-				-		-							
82B Highway 411			-				_		-					-		252,900
83 Welches Creek			-				-		-	-						232,500
83A Elfie			_			-	-	•	-	-						
84 South Hill			_	-		-	-	-	-			<u> </u>				
85 Rochester			_	-		•		-	-							-
86 Muhlenburg			_				_	-	_	•				-		-
87 Woodbury Road				-			_	-	-	•		-				-
88 Logansport				-		-				-				-		-
89 Bowling Green Road #3								830,000 meter	r issue							-
89A Sandy Creek			-			(70,000) read (	ump							-		-
90 Highway 79 South			_		_									-		-
91 Bowling Green Road #2			_				-		-			-		-		
91 Dowing Greek Hoad #2			-				-		-							
TOTALS - Reading Adjustments				(611,006)		(734,159)		66.653		(645,722)		(98,042)		-		-
CALCULATION - Water Produced (Gals);						F-1-17		140.17		Acr 17		May 17		Jun-17		Jul-17
				<u>Jan-17</u>		Feb-17		Mar-17 2,098,053		Apr-17 2,045,978		May-17 2,134,158		2,936,600		1,727,800
80 Treatment Plant				1,314,594 1,946,500		1,862,541 2,028,600		1,917,400		1,646,400		1,766,400		2,025,600		2,017,300
81 Aberdeen				1,345,000		1,566,000		1,370,000		1,332,000		1,534,000		1,556,000		1,822,100
82 Leonard Oak 82A Reedyville				1,163,000		1,263,000		1,160,000		951,000		1,158,000		1,154,000		1,559,000
828 Highway 411				668,000		429,000		476,000		481,000		521,000		516,000		620,000
83 Welches Creek				2,434,200		2,466,000		2,597,900		2,152,700		2,382,300		3,174,900		2,859,800
83A Elfie				1,451,200		1,310,400		1,734,500		1,317,800		1,551,100		1,789,600		1,988,600
84 South HIII				1,625,000		1,426,000		1,621,000		1,768,000		1,569,000		1,760,000		2,214,000
85 Rochester				1,224,200		1,061,400		1,390,500		1,277,300		949,700		1,168,900		1,270,500
86 Muhlenburg				1,066,600		1,191,800		1,153,200		1,212,100		990,200		1,274,100		1,414,500
87 Woodbury Road				791,000		865,000		830,000		798,000		825,000		1,004,000		1,094,000
88 Logansport				1,404,500		1,467,600		1,314,500		1,290,700		1,503,500		1,419,300		1,876,300
89 Bowling Green Road #3				1,711,000		1,679,000		1,976,000		1,929,000		1,712,000		1,681,000		1,661,000
89A Sandy Creek				906,000		780,000		720,000		870,000		930,000		920,000		1,200,000
90 Highway 79 South				1,862,000		1,933,000		1,698,000		1,835,000		1,959,000		1,847,000		2,249,000
91 Bowling Green Road #2				3,276,000		2,659,000		2,805,000		3,097,000		2,710,000		2,808,000		3,626,000
TOTALS - Water Produced				24,188,794		23,988,341		24,862,053		24,003,978		24,195,358		27,035,000		29,199,900
				OK		ок		OK		OK		OK		OK		OK

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#### ENTER Master Meter Reading Dates;

ENTER Master Meter Reading Pates.		Jan-17	-	E	eb-17	M	ar-17	Apr	-17	Max	17	der	1-17	- Jul	-17
80   Treatment Plant     81   Aberdeen     82   Leonard Oak     82A   Redywite     82B   Highway 411     83   Elfie     84   Forek     83A   Elfie     84   South Hill     85   Rochester     86   Muhlenburg     87   Woodbury Road     88   Basport     89   Bowling Green Road #3     89A   Sandy Creek     90   Highway 79 South     91   Bowling Green Road #2	Dame 11       11/21/15       11/22/15       11/22/15       11/22/15       11/22/15       11/22/15       11/22/15       11/22/15       11/22/15       11/22/15       12/02/15       12/02/15       12/02/15       12/02/15       12/02/15       12/02/15       12/02/15	Description       12/13/16       12/13/16       12/21/16       12/21/16       12/21/16       12/21/16       12/21/16       12/21/16       12/20/16       0/03/17       12/30/16       0/03/17       12/30/16       0/03/17       0/03/17       0/05/17       0/10/17       0/10/17       0/11/2/17       0/11/2/17	# of Days 28 28 29 34 30 30 30 30 33 31 34 30 30 33 31 34 34 34 34 34 34 34 34 34 34	2011 0141 0112411 0112411 01123112 01123112 01123112 01125112 01125112 01125112 01125112 01125112 01125112 01125112 01200112 01200112 01200112 0120012 0100000000	# of Days 30 32 33 33 27 29 27 28 27 28 27 31 31 31 32 29 29 29 29 32 29 29 29 29	Profet Tanta 92/21/17 92/22/17	# of Davs 34 32 30 30 31 33 34 30 24 28 28 28 28 28 28 29 29 29 29	Hand Data       Datastri7       Datastri7	# of Days 27 28 29 29 29 28 29 34 33 33 31 32 33 31 32 33 34 30 32	Energy Darks Darlins / 24/00/17 94/24/17 94/24/17 94/24/17 94/24/17 94/25/17 94/25/17 94/25/17 94/25/17 94/25/17 94/25/17 95/25/17 95/25/17 95/25/17 95/25/17 95/25/17 95/25/17 95/25/17 95/25/17 95/25/17 95/25/17 95/25/17	<u># of Davs</u> 30 32 32 32 32 32 32 32 32 31 29 31 29 30 31 32 31	Best 10 Sec. 05/22/17 05/22/17 05/22/17 05/22/17 05/25/17 05/25/17 05/25/17 05/01/17 05/01/17 05/05/17 05	# of Days     33     32     30     31     31     30     35     33     29     31     32     29     29     28     27	General University Provide A 11 Schulder A 11 Schulder A 12 Sch	<u># of Days</u> 28 29 33 34 34 34 34 34 34 34 34 34 34 34 34
ENTER Water Sold (Gals):					200.02		100 12		the C		100.17		km.17		-
80   Treatment Plant     81   Aberdeen     82   Leonard Oak     82A   Reedyville     82B   Highway 411     83   Effie     84   South Hill     85   Rochester     86   Muhlenburg     87   Woodbury Road     88   Logansport     89   Bowling Green Road #3     89A   Sandy Creek     90   Highway 79 South     91   Bowling Green Road #2			227-17 7.728,500 1.723,040 1.023,040 1.023,040 1.023,040 1.223,720 1.222,720 1.201,310 962,350 812,171 732,830 1.304,010 1.321,160 7797,070 1.702,288 2.398,760		1,851,870 1,651,870 1,409,180 1,122,450 391,510 2,034,550 1,173,970 1,063,230 719,630 890,540 730,680 1,144,070 1,162,820 568,050 1,923,412 2,080,700		Marc 12       1,484,820       1,628,560       1,071,020       1,049,520       439,130       2,155,030       1,484,910       1,115,590       826,700       830,210       722,560       1,050,680       1,073,280       609,820       1,497,391       2,252,710		1,476,940 1,097,000 763,260 420,030 1,128,190 1,128,190 948,110 663,560 992,500 1,361,230 728,480 728,480		1,530,710 1,309,130 1,080,370 2,2120 2,071,570 1,335,140 1,104,530 766,120 811,950 688,330 1,305,640 1,271,850 869,050 1,895,027 2,270,010		An-17 1,927,720 1,929,580 1,224,520 1,006,440 1,006,440 2,446,530 1,539,650 1,244,350 1,016,320 1,025,570 619,780 619,780 619,730 1,728,568 2,220,130		1,64,020 1,804,130 1,497,720 1,425,570 5,72,260 2,110,030 1,700,370 1,482,877 1,109,410 1,041,10 677,850 1 1,1041,10 677,850 1,1041,10 677,850 1,1041,10 677,850 1,1041,10 677,850 1,1041,10 677,850 1,1041,10 677,850 1,1041,10 677,850 1,1041,10 677,850 1,1041,10 677,850 1,1041,10 677,850 1,1041,10 677,850 1,1041,10 1,105,100 1,105,10000000000
TOTALS - Water Sold			30,216,916		LADIDATE.		10.010.857		11.060(4)1		30.aet.%/		an felome		01100310

#### ENTER Leak Detection Dates & No. of Leaks Found By Leak Detection:

	_	Detect Date # of Leaks Detect Date # s			Filler				10 A	1017	-	2411	14	ETT.
	Detect Date	# of Leaks	Detect Date	# of Leaks	Detect Date	# of Leeks	Detect Date	e of Leeks	Detect Date	# of Leaks	Detect Date	of Looks	Detect Date	& si Linne
80 Treatment Plant	05/21/15	N/A	05/21/15	N/A	05/21/15	N/A	05/21/15		05/21/15	<u>N/A</u>	05/21/15	N/A	05/21/15	N/A
81 Aberdeen	03/18/15	N/A	1000	N/A	000100100	<u>N/A</u>	03/18/15	<u>N/A</u>	03/18/15	H/A	03/18/15	N/A	- 1- 1 A	N/A
82 Leonard Oak	12/05/15	N/A	12/05/15	N/A	12/05/15	<u>N/A</u>	1200012	<u>N/A</u>	1262	N/A	12/05/15	N/A	P.15	N/A
82A Reedyville	04/11/14	N/A	Q4/11/1-	N/A	04/11/14	N/A	11114	N/A	04/11/14	N/A	<u>04/11/14</u>	N/A	04/11/14	<u>N/A</u>
82B Highway 411	04/11/14	N/A	04/11/14	N/A	04/11/14	N/A	04/11/14	<u> </u>	<u>04/11/14</u>	<u>N/A</u>	04/11/14	<u> </u>	- 11/44	N/A
83 Welches Creek	11/20/15	N/A	11/20/15	N/A	11/20/15	N/A	11/20/15	N/A	11/20/15	N/A	1	N/A		<u>N/A</u>
83A Elfie	01/27/15	N/A	1000	N/A	01/27/15	N//	01/27/1	<u>N/A</u>	01/27/15	N/A	01/27/15	N/A	01/27/15	N/A
84 South Hill	10/21/15	N/A	10/21/15	N/A	10/21/15	N/A	1000011	N/A	10/21/15	<u>N/A</u>	10/21/15	N/A	21/15	<u>N/A</u>
85 Rochester	10/15/13	N/A	10/15 13	52.0	03/20/17	N/A	03/20/17	<u>N/A</u>	03/20/17	N/A	03/20/17	N/A	3. 11	N/A
86 Muhlenburg	08/25/15	N/A	08/25/15	Ne.A	08/25/15		100.000	N/A	10002	<u> </u>	1000	<u>N/A</u>	2010/01/01	N/A
87 Woodbury Road	01/16/13	N/A	01/16/13	N/A	010000	N/A	division.	<u>N/A</u>	01/16/13	<u>N/A</u>	01/16/13	N/A	01/16/13	N/A
88 Logansport	10/10/14	1.000	10/10/14	N/A	10/10/14	N/A	10/10/14	M/A	10/10/14	85.0	10/10/14	N/A	224	<u>N/A</u>
89 Bowling Green Road #3	177720415-	time	5777-04-	44	0.2400-10		07//2014/5	-186	0.202446	100	211	35	/ 15	19.4

89A Sandy Creek

90 Highway 79 South

91 Bowling Green Road #2

TOTALS - Leaks Found By Leak Detection

#### ENTER Own Use (Gals):

80	Treatment Plant
81	Aberdeen

82 Leonard Oak

- 82A Reedyville
- 82B Highway 411
- 83 Welches Creek
- 83A Elfie
- 84 South Hill 85 Rochester
- 86 Muhlenburg
- 87 Woodbury Road
- 88 Logansport
- 89 Bowling Green Road #3
- 89A Sandy Creek
- 90 Highway 79 South
- 91 Bowling Green Road #2

TOTALS - Water for Own Use

#### ENTER Accounted For (Gals):

80 Treatment Plant

- 81 Aberdeen
- 82 Leonard Oak
- 82A Reedyville
- 82B Highway 411
- 83 Welches Creek
- 83A Elfie
- 84 South Hill 85 Rochester
- 86 Muhlenburg
- 87 Woodbury Road
- 88 Logansport
- 89 Bowling Green Road #3
- 89A Sandy Creek
- 90 Highway 79 South
- 91 Bowling Green Road #2

TOTALS - Water Accounted For

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	03/17/15 12/05/15	N/A N/A	122-0	NVA NVA	Canado Canado	N/A N/A	<u>12/05/15</u>	NVA NVA	12/05/15	N/A	03/17/15 12/05/15	<u>N/A</u> N/A	12/05/15	N/A N/A
ection														•
		<u>Jan-17</u> 17,400 245,000		52,568		231,150 9,600		<u>318,000</u> 6,720 1,760		1,200		<u>336,468</u> <u>3,964</u> 5,		
		25_11 117,042 8,100		21,900		14,645		13,200		35,450		305,360		381.000
		<u>(0)</u>				· · · · · · · · · · · · · · · · · · ·		<u>26,400</u> <u>3,060</u>		25,000				33) 666 6,995 30,885
		12,150		99,400						85,101		1,100 14.000 1.500		16,800
		10,200		10,400		163,000						5.00		12,000
		10011		test.		216,000		April A.C.		Marca				HELL
		<u>79,200</u> 		76,320 100 20,000		216,000 21,600 43,200		20,160		720		<u>294</u> 		20,880 77,700
		18,720		4,500		67,104 58,752 483,840		<u>69,120</u> 110,880		80,640 3,024 115,200		<u></u>		631,84
		97,920		478,080 324,000 227,282		<u>527,</u> 100,800		259,200		216,000		43		279,31 200,400 155,520
		21,500 388,800 64,600		32,400		2,160 140,400 31,680		28,800		649,440		249,120 86,400		<u>132,230</u> 36,000
				453,420 - 561 Apr		294 460 2 111 0mc		<u>14,400</u> 536,4 M		1		365,760		584,040

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ENTER Master Meter Readings:	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	
	Usage	Usage	Usage	Usage	Usage	Usage YTD
80 <u>Treatment Plant</u> WTP - Chlorine Meter 3* WTP - Chlorine Meter 1*	25,894,000 1197635 (60,500)	<b>32,150,000</b> (78,900)	25,305,000 (70,400)	23,209,000 (61,600)	27,240,000 (75,800)	310,352,000 (782,300) -
WTP - SLUDGE Meter 2" Aberdeen Welches Creek Leonard Oak #2 Woodbury Road #2 Bowling Green Road #3	(2,473,000) (4,210,000) 70570 (3,474,000) (861,000) (8,137,000)	(4,258,000) (4,008,000) (1,014,000) (10,173,000)	(2,558,000) (3,536,000) (3,237,000) (892,000) (7,262,000)	(2,977,000) (743,000) (6,653,000)	(4,075,000) (3,294,000) (895,000) (7,866,000)	- (29,835,000) (43,852,000) (39,074,000) (10,384,000) (91,604,000)
South Hill Logansport	764654 (4,230,000) 2856911 (1,657,400)	(4.772,000) (1,711,100)	(3,899,000) (1,564,800)	(3,576,000) (1,348,800)	(4,458,000) (1,706,300)	(48,426,000) (17,751,300)
81 <u>Aberdeen</u> Highway 79 North Gilstrap Dexterville	2,494,000 <u>152</u> (100) (300) <u>598315</u> (426,500)		2,547,000 - - (572,500)	2,777,000 - - (490,000)		- 29,912,000 (100) (600) (6,078,800)
82 <u>Leonard Oak #2</u> Reedyville Highway 411	706344 3,321,000 (1,286,000) 41086 (616,000)		3,542,000 (1,491,000) (567,000)	3,022,000 (1,159,000) (434,000)	3,437,000 (1,335,000) (537,000)	39,697,000 (14.986,000) (6,342,000)
82A Reedvville	1,220,000	1,363,000	1,537,000	1,123,000	1,335,000	14,986,000
82B <u>Highway 411</u> Highway 411 / Grayson County	581,000 300	511,000 400	567,000	434,000	555,000	6,359,000 700
83 <u>Welches Creek</u> Highway 79 North Elfie	440795 3,952,000 <u>15</u> 1 1,000 146075 (1,287,700)	4,049,000 - (1,381,400)	3,895,000	3,089,000	4,110,000 (1,438,600)	44,098,000 1,000 (13,671,600)
83A <u>Ellie</u> Dexterville	1,069,100 335,000	1,484,100 550,400	1,208,500 539,300	1,263,200 531,500		13,740,500 6,183,700
84 <u>South Hill</u> Rochester	0007000 3,969,000 536425 (2,379,000)	4,789,000 (2,850,000)	3,592,000 (1,943,000)	3,722,000 (2,086,000)	4,459,000 (2,549,000)	49,102,000 (28,395,000)
85 <u>Rochester</u> Muhlenburg	536354 2,373,000 (1,180,400)	2,841,000 (1,449,100)	1,957,000 1,031,700)	2,078,000 (1,154,600)		28,457,000 (14,256,100)
86 Muhlenburg	2503868 1,134,500	1,284,100	1,207,600	1,159,500	1,069,600	14.157,800
87 Woodbury Road #2 Hwy 403 4*	13357) 905,000 1,000	889,000	817,000	814,000	845,000	10,477,000 1,000
88 Logansport	2867007 1,458,600	1,628,100	1,519,300	1,504,000	1,408,200	17,794,600
89 <u>Bowling Green Rd #3</u> Highway 626 Bowling Green Road #2 Highway 79 South Sandy Creek	9,050,000 56,000 (3,969,000) (2,388,000) (1,150,000)	8,852,000 (3.638,000) (2,627,000) (1,110.000)	6,746,000 (2,697,000) (1,860,000) (900,000)	6,534,000 (2,768,000) (1,636,000) (880,000)	8,170,000 (3,489,000) (2,260,000) (900,000)	92,821,000 59,000 (37,527,000) (24,466,000) (12,232,000)

89A Sandy Creek	49063	1,170,000	49171	1,080,000	49263	920,000	49349	860,000	49441	920,000	11,346,000	
90 Highway 79 South	441419	2,782,000	443933	2,514,000	445557	1,624,000	447389	1,832,000	449461	2,072,000	24,323,000	
Highway 626	177	(56,000)	177		177		177	-	0		(59,000)	
East Logan County	20		20		20		20		20	-	-	
Orange Cemetery Rd 4"	1010	(17,000)	1090	(80,000)	1090		1094	(4,000)	1094	-	(214,000)	
- ,							_					
91 Bowting Green Rd #2	391984	4,091,000	395339	3,355,000	398069	2,730,000	401090	3,021,000	404317	3,227,000	37.292.000	
Hwy 403 4"	<u>153</u> 1010	(1,000)	153	-	153	-	153	- 1	153		(1,000)	
Orange Cemetery Rd 4"	1010	17,000	1090	80,000	1090	•	1094	4.000	1094	-	214,000	
TOTALS - Master Meter Readings		27,014,500		29,439,400		24,861,000		23,751,600		26,874,300	311,436,500	
		OK		OK		OK		OK		OK	OK	
ENTER Reading Adjustments:												
		Aug-17		Sep-17		Oct-17		Nov-17		Dec-17	Adjusts YTD	
80 Treatment Plant		-		-	_	-			-	(377,000)	(3,159,276)	
81 Aberdeen		<b>.</b>			-	•		<u> </u>	-	377,000	377,000	
82 Leonard Oak	Backlaud to Welches				-	-			-		(252,900)	
82A Reedyville	(May 26 - June 1)	<u> </u>		<u> </u>	-	-		-	-		•	
82B Highway 411		-		<u> </u>	-			-	-	-	•	
83 Welches Creek	Backloyd from Leondard	-		·	-	·····		-	-	-	252,900	
83A Elfie	(May 26 - June 1)	· · ·			-	-			-			
84 South Hill		-		<u> </u>	_	-		-	-		-	
85 Rochester		-		-	-	-			-		•	
86 Muhlenburg				<u> </u>	-	-		<u> </u>	-	<u> </u>	-	
87 Woodbury Road		-		· · · ·	-	· .		-	-			
88 Logansport					-	·		-	-		•	
89 Bowling Green Road #3		-						-	-	-	830,000	
89A Sandy Creek					-				-		(70,000)	
90 Highway 79 South					-				-	-		
91 Bowling Green Road #2		·•		<u> </u>	-	<u> </u>		<u> </u>	-		-	
TOTALS - Reading Adjustments		-		-		•		-		-	(2.022,276)	
CALCULATION - Water Produced (Gals):												
80 Treatment Plant		Aug-17 1,791,100		Sep-17 3,292,000		Oct-17 2,285,800		Nov-17 1,669,600		Dec-17 2,325,900	Usage YTD 25,484,124	
80 Treatment Plant 81 Aberdeen		2.067.000		2,308.800		1,974,400		2,287.000		2,224,100	25,464,124	
82 Leonard Oak		1,419,000		1,704,000		1,484,000		1,419,000		1,565,000	18.116.100	
82A Reedyville		1,220,000		1,363,000		1,537,000		1,123,000		1,335,000	14,986.000	
828 Highway 411		581,300		511,400		567,000		434,000		555,000	6,359,700	
83 Welches Creek		2,665,300		2,667,600		2,583,800		2,024,400		2,671,400	30,680,300	
83A Elfie		1,404,100		2,034,500		1,747,800		1,794,700		1,799,900	19,924,200	
84 South Hill		1,590,000		1,939,000		1.649.000		1.636.000		1,910,000	20,707,000	
85 Rochester 86 Muhlenburg		1,192,600 1,134,500		1,391,900 1,284,100		925,300 1,207,600		923,400 1,159,500		1,425,200 1,069,600	14,200,900 14,157,800	
87 Woodbury Road		906,000		889.000		817,000		814,000		845,000	10,478,000	
88 Logansport		1,458,600		1,628,100		1,519,300		1,504,000		1,408,200	17,794,600	
89 Bowling Green Road #3		1,599,000		1,477,000		1,289,000		1,250,000		1,521,000	19,485,000	
89A Sandy Creek		1,170,000		1,080,000		920,000		860,000		920,000	11,276,000	
90 Highway 79 South		2,709,000		2,434,000		1,624,000		1,828,000		2,072,000	24,050,000	
91 Bowling Green Road #2		4,107,000		3,435,000		2,730,000		3,025,000		3,227,000	37,505,000	
TOTALS - Water Produced		27,014,500		29,439,400		24,861,000		23,751,600		26,874,300	309,414,224	
		OK		OK		OK		OK		OK	OK	

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#### ENTER Master Meter Reading Dates:

ENTER Master Meter Reading Dates:	4		Page 12				Nov-17 Dec-17			
	Aug-17	f Days Beat D	Sep-17 A of Days	Hand Date	d-17 # of Days	Read Date	# of Days	Dente Class	# of Days	# of Days YTD
80 Treatment Plant	07/19/17	30 30 30 21		125/22/17	4 01 Days 30	10110112	28	11/20/17	# <u>01 Uays</u> 33 `	# OF DAYS TTD
81 Aberdeen	07/20/17	30 08/729		100/21/17	30	TERMINAL T	32	11/21/17	29	365
82 Leonard Oak	07/24/17	28 08 23/	30	09/25/17	33	18(SA(1))	29	11/27/17	34	370
82A Reedyville	07/25/17	27		199725/17	34	15/24/17	28	11/27/17	34	370
82B Highway 411	07/25/17	27 08/25/1		09/26/17	32	10/2017	29	11/29/17	35	371
83 Welches Creek	07/26/17	27 06-26		N.R.2DVAT	32	10,009.47	27	11/19/17	24	356
83A Elfie	07/26/17	23 24070		09/29/17	30	1020/17	31	12/01/17	32	368
84 South Hill	0B/03/17	28	34	16-04/17	28	11/02/17	29	10000017	33	368
85 Rochester	08/02/17	28 00 05 0	34	10/03/17	28	11/01/17	29	1204/121	33	369
86 Muhlenburg	08/01/1	27 08/31/1	I <u>7</u> 30	10/02/17	32	10/31/17	29	12/01/17	31	366
87 Woodbury Road	08/07/17	28 09/07/1	17 31	10/06/17	29	11/00/17	31	12/07/17	31	367
88 Logansport	08/08/17	29 09/07/1	<b>IZ</b> 30	10/03/17	32	11/06/17	28	12/07/17	31	366
89 Bowling Green Road #3	08/09/17	29 09/11/1		10/10/17	29	11/07/117	28	12/11/1	34	369
89A Sandy Creek	08/11/17	30 09/12/1		10/12/17	30	11/08/17	27	4212017	35	369
90 Highway 79 South	10012-0112	32 <u>09/18/1</u>		10/13/1	25	11/13/17	31	1814/17	31	367
91 Bowling Green Road #2	2011/017	30 2210	33	10/18/57	28	11/10/17	30	10/10/17	-	336
ENTER Water Sold (Gals);										
80 Treatment Plant	- 4	1,000,000	Sep-17 2,496,890		3145-17		Nov-17 1,002,210		Dep-11 1,702 640	Sold YTD 20,695,120
81 Aberdeen		,813,330	1,987,270		1,635,160				the second se	20,586,080
							1,773,040		1,568,870	
82 Leonard Oak		288,810	1,536,400		1,216,490		1,182,530		1,253,160	15,179,000
82A Reedyville		,126,840	1,290,020		1,380,120		1,013,780		1,197,570	13,467,730
82B Highway 411		421,560	478,070		554,190		366,610		509,180	5,672,620
B3 Welches Creek		2,321,750	2,333,140		2,175,180		1,849 230		2,356,410	25,779,920
83A Elfie		1,218,580	1,463,680		1,269,970		1,263,100		1,446,530	16,253,910
84 South Hill		,207,880	1,398,560		1,101,640		1,119,170		1,329,190	14,741,690
85 Rochester		985,210	1,049,700		836,240		7750 7750		916,400	10,836,770
86 Muhlenburg		884,150	795,650		944,640		770,270		810,230	10,564,600
87 Woodbury Road		808,850	770,210		711,560		648,040		797,620	9,006,980
88 Logansport		1,166,530	1,320,770		1,111,640		1, 470		1,055,000	14,325,110
89 Bowling Green Road #3		1,443,120	1 505.670		1,204 (14)		1.1754-010		1,337,230	15,852,050
89A Sandy Creek		969,850	970,670		754,440		575,750		784.430	9,209,890
90 Highway 79 South		2.353,566	2,148 1		1,460,604		1,708,281		1,869,080	21,963,248
91 Bowling Green Road #2		3,133,540	2,781,060		2,274,990		2,311,090		2,522,550	29,398,790
TOTALS - Water Sold	-		Diden it i		29.662.164		19392-001		21.401.090	253,533,508 OK

#### ENTER Leak Detection Dates & No. of Leaks Found

	A	1217	<u>Sep-17</u>			Mal/2	25	<u>7117</u>	1210217		
	Detect Data	E of Leaks	Read Date	E cl-Leaks	Read Date	at of Leaks	Read Date	E of Leaks	Gend Date	# of Leeks	#of Leaks YTD
80 Treatment Plant	05/21/15	N/A	05/21/15	N/A	95/21/15	NA	26/21/15	<u>N/A</u>	05/21/15	N/A	N/A
81 Aberdeen	03/18/15	N/A	03/18/15	N/A	03/10/15	NA	00/18/15	NA	09/18/15	N/A	N/A
82 Leonard Oak	12/05/15	N/A	12/06/15	NA	1205(15	<u>NVA</u>	12/05/15	N/A	12/05/15	N/A	N/A
82A Reedyville	04/11/14	N/A	04/11/14	N/A	04/11/14	N/A	04/13/14	N/A	94/11/14	N/A	N/A
82B Highway 411	04/11/14	N/A	04/11/14	N/A	04/11/14	N/A	04/11/14	N/A	04/31/14	N/A	N/A
83 Welches Creek	07/21/17	N/A	97/21/17	N/A	07/21/17	N/A	07/21/17	N/A	97/21/17	N/A	N/A
83A Elfie	01/27/15		01/27/15	N/A	01/27/15	N/A	11/09/17	N/A	11/08/17	N/A	N/A
84 South Hill	10/21/15	N/A	10/21/15	N/A	10/21/15	<u>N/A</u>	10/21/15	N/A	06/06/17	N/A	N/A
85 Rochester	03/20/17	N/A	09/20/17	N/A	03/20/17	NA	03/20/17	N/A	03/20/17	N/A	N/A
86 Muhlenburg	08/25/15	N/A	06/25/15	N/A	05/25/15	N/A	00/25/15	N/A	09/08/17	N/A	N/A
87 Woodbury Road	01/16/13	N/A	01/16/13	N/A	01/16/13	N/A	01/16/13	N/A	01/18/13	N/A	N/A
88 Logansport	10/10/14	N/A	10/10/14	NA	10/10/14	NA	10/10/14	N/A	10/10/14	N/A	N/A
89 Bowling Green Road #3	07/29/15	N/A	07/29/15	N/A	07/20/15	NA	07/28/15	NA	07/29/15	N/A	N/A

BUTLER COUNTY WATER SYSTEM Input - Statistics By Metering Locations													8 of 8
For Year 2017									S:\LE	EAK DETECTION W	ater Loss Reports\BCWS	Water Loss\BCWS Water Loss - Prior Ye	ars\BCWS Water Loss 2017 \ INPUT 1/8/2019 at 12:06 PM
89A Sandy Creek 90 Highway 79 South 91 Bowling Green Road #2	03/17/15 12/05/15	<u>N/A</u>	03/17/15 12/05/15	N/A N/A	SELECTION OF COMPANY	N/A		N/A N/A	11/17/17	<u>N/A</u>	N/A N/A N/A		
TOTALS - Leaks Found By Leak Detection						-					OK -		
ENTER Own Use (Gals);		-		~				-		Dec 12			
80 Treatment Plant		150100		and i		The second		-		Dec-17 300	Own Use YTD 1,416,984		
81 Aberdeen		-				183		51,223		-	272,403		
82 Leonard Oak		25,000		-		-		-		25 20	313,905		
82A Reedyville		-		-				-			39,120		
82B Highway 411		60,703				1		-		-	231,945		
83 Welches Creek		316,000		-		2,700		250		33,640	1,070,605		
83A Elfie								-			4,500		
84 South Hill						21,840				3,000	106,130		
85 Rochester		43,200		4,271		25		101,000		21,000	198,266		
86 Muhlenburg				41/68/0				91,00			132,600		
87 Woodbury Road	-	<u> </u>											
88 Logansport	-										1,100 581,100		
89 Bowling Green Road #3 89A Sandy Creek	-	51,000		5,600				32,032			336,583		
90 Highway 79 South	~	01,000				2,000					204,800		
91 Bowling Green Road #2	-	18,000		166,225		163,21				20.000	405,150		
TOTALS - Water for Own Use		582-803		DITERI.		1427 (51		279,005		62.80	5,315,191 OK		
ENTER Accounted For (Gals):		Aunal7		2001		Oct-17		Manuf		Desit	Accounted YTD		
80 Treatment Plant		Auge17 273.604		283		Oct-17 318 245		87,84		272,160	1,922,640		
81 Aberdeen		253,440		283		73,200		447,480		-	1,103,880		
82 Leonard Oak						1.00		1.00			118,800		
82A Reedyville				14,400		7.34		5,700			324,629		
82B Highway 411								1		-	18,720		
83 Welches Creek		132,480									817,534		
83A Elfie				48,960		030,400		446,400		338,540	1,532,156		
84 South Hill				442,080		660,960		456,480		475,200	4,395,960		
85 Rochester	-	<u>83</u> /20 190,080		264,000		\$3,120		30,240		480,085	2,586,000		
86 Muhlenburg	-	190,080		20.100							1,043,280 452,841		
87 Woodbury Road		17,961		20,160		324,000		324,000			1,328,162		
88 Logansport 89 Bowling Green Road #3	-	69,120		173,520		720		324,000		259	1,976,150		
89A Sandy Creek	-	00,120		7.		120		-		200	298,920		
90 Highway 79 South	-	25,920		108,000		16,200				449,280	728,280		
91 Bowling Green Road #2		869,760		148,390		299,260		726,480		345,600	4,968,030		
TOTALS - Water Accounted For		1,018,001		128010		240(10)	0.00	LIPARE		2,020,940	23,615,982 OK		