



# City of Bowling Green

## Internal Auditor's Office

911 Center Funding Audit

Project# 2018-05

Issue Date: 05/03/18

Finalized: 07/09/18

Deborah Jenkins, CFE, CGAP, CICA

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### **Observations and Recommendations**

- 1. Management should work with the City of Bowling Green Board of Commissioners to request Warren County to consider revising the 911 landline fee rate or structure. (pg. 8-10)**

## Transmittal Letter

TO: Jeff Meisel, City Manager, Ex-officio Member  
Jeffrey Stein, Audit Committee Vice-Chair  
Vivian Grise, Audit Committee Member  
Brian Dinning, Audit Committee Member  
John Ward, Audit Committee Member  
Joe Denning, Commissioner and Audit Committee Member

CC: Doug Hawkins, Police Chief  
Melanie Watts, Deputy Chief  
Amelia Bowen, Communications Manager

Pursuant to the approved 2017/2018 Internal Audit Plan, I hereby submit the 911 Center Funding Audit. The objective of this audit is to ensure that Kentucky 911 landline and wireless funds are used in compliance with grant requirements, confirm that services provided to outside agencies are billed for the services as stated in any related contracts, and determine if additional services are performed for outside agencies by the City's 911 Center. The body of the report consists of observations, recommendations and management's responses to the recommendations.

### Results in Brief

Based on the results of this audit, the landline and wireless funds are used in compliance with grant requirements and services are billed correctly for contracted services. The one recommendation would require Warren County's approval for any update to the landline rates throughout Warren County.

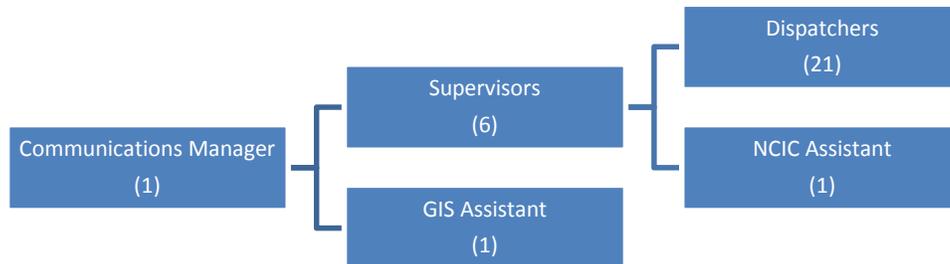
Sincerely,

Deborah Jenkins, CFE, CGAP, CICA  
Internal Auditor

**Background**

The City of Bowling Green’s Police Department Communications Center, or 911 Center, answers 911 and non-emergency calls 24 hours a day 365 days a year. The 911 Center is a Kentucky certified Public Safety Answering Point (PSAP) and dispatches police, fire, animal control, Warren County fire calls for our community as well as enters, maintains and verifies various domestic orders for the Warren County Circuit Court Clerk’s Office. The 911 Center is funded by general funds from the City of Bowling Green and State and County 911 fees on landline and wireless services. The landline 911 fees are set by Warren County and the wireless fees are set by the Commonwealth of Kentucky.

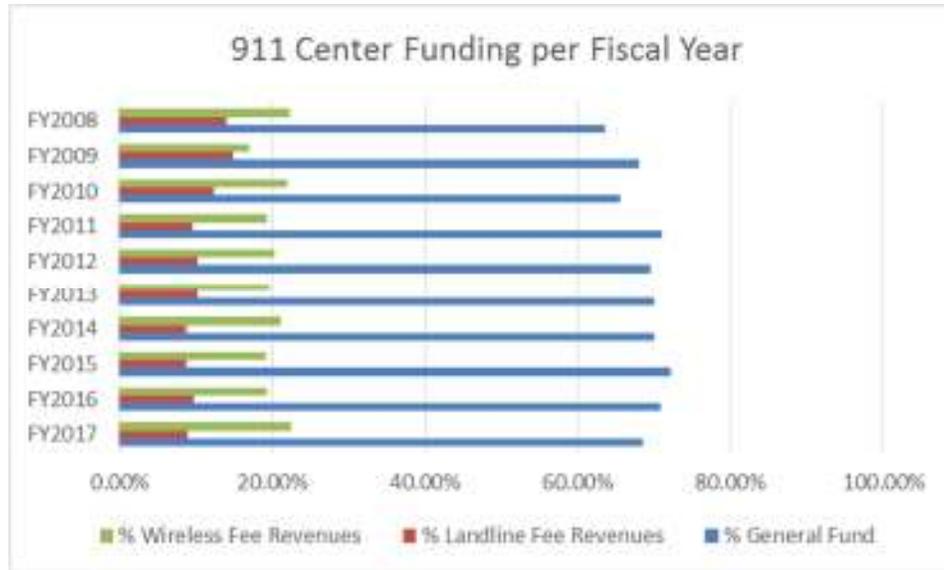
The 911 Center operates with a staff of 30 employees. The division has focused on increasing its supervisory personnel since Fiscal Year 2013 by adding five (5) supervisor positions in an effort to always have a supervisor on shift within the 911 Center.



The 911 Center expenditures have increased due to salaries, overtime and benefit costs, as well as equipment and upgrades needed to operate the division.

<b>Fiscal Year</b>	<b>Total Expenditure</b>
FY2008	\$1,216,092.37
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The 911 Center relies primarily on the City’s General Fund with approximately 70% of the budget and the remaining 30% combined from the wireless and landline funds collected by the State and County. The graph on the following page illustrates the reliance on the City’s General Fund verses the wireless and landline revenues.



With the advancement of technology, the number of landlines has dropped and the number of wireless subscribers has increased over the past 10-15 years. The City of Bowling Green has been certified as E911 wireless answering point for Bowling Green and Warren County since December 2000. The Commonwealth of Kentucky sets the wireless fee structure, collects the funds and disperses it to the approved PSAPS. According to the Kentucky Office of Homeland Security 911 Services Board’s FY2017 Annual Report:

*The 911 Services Board collects fees from cell phone customers in two manners. For those with a monthly subscription plan via a cell phone provider, \$0.70 per month is collected. For those with prepaid wireless service, \$0.93 is collected for each transaction (initial purchase and reloading of minutes).*

Within the 911 Center, activities are tracked and reported on a monthly basis within the department and on a fiscal year basis to the Kentucky 911 Services Board. The five (5) year changes in calls and activities managed through the center are shown below. There was an increase of 9,476 calls originating from a wireless phone while the landline originating calls decreased by 532 calls. Non-emergency calls also showed an increase of 5,947 calls, City fire department incidents have increased 1,750 while County fire incidents increased by 800.

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The number of Police Department incidents decreased by over 20,000 which, according to the Communications Manager, was due to the division becoming more efficient in their processes.

The City has a contract with Warren County Fiscal Court to provide services for Warren County volunteer fire dispatching services. Municipal Order No. 2012-221 was approved on December 7, 2012 for reimbursement of services for county volunteer fire dispatching calls at an agreed upon rate of \$27,000 per year to aide in the cost of dispatching services for county fires. This amount is billed quarterly by the City's Department of Finance and the amount has remained the same since 2012.

Another increasing demand within the 911 Center is the paperwork and verifications associated with domestic orders originating from the Warren County Circuit Court Clerk's Office. The Circuit Court Clerk's Office is not open 24/7 as the 911 Center is and they do not currently have access to the National Crime Information Center (NCIC). The Clerk's Office is limited to entering domestic orders in during office hours (8 a.m. – 4 p.m. M-F) into the Law Information Network of Kentucky (LINK). The LINK system only makes the domestic order searchable within Kentucky where the City's 911 Center receives a notification within the system. The City's 911 Center then reviews the order, adds identifying information such as tattoo's and scars as well as pertinent officer safety related information such as a violent history, drug or mental illness history into the order and then they "flip" it into NCIC so the order can be searched nationwide. The 911 Center also performs verifications as required on the orders, maintains original files of the orders and destroys them according to Kentucky retention laws.

### **Objective**

The objective of this audit is to ensure that Kentucky 911 landline and wireless funds are used in compliance with grant requirements, confirm that services provided to outside agencies are billed for the services as stated in any related contracts, and determine if additional services are performed for outside agencies by the City's 911 Center.

### **Scope**

The scope of this audit includes 911 funding and expenditures from July 1, 2016 through June 30, 2017.

### **Criteria and Approach**

This audit was based on documented policies and procedures, as well as general best business practices. The approach consisted of three phases:

#### **1. Understanding the Process:**

During Phase One, an entrance conference was held to discuss objectives of the audit work, collect information and documentation, review applicable regulations and explain why this audit was selected. A review was completed of all related municipal orders and State grant requirements. Online research was conducted to review similar audits conducted on similar topics.

## 2. Sample Determination and Detailed Testing:

During Phase Two, a review and testing were conducted to evaluate funds expensed from the City's General Fund, the E911 landline Fund and the Wireless 911 Fund to ensure that funds were spent as required and that applicable contracts or work for other agencies were reviewed, including:

- A. Reviewed municipal orders related to 911 communications funding and any related contracts with outside agencies.
- B. Reviewed Kentucky Office of Homeland Security Kentucky 911 Services Board's Fiscal Year 2017 Annual Report.
- C. Reviewed KRS 67.760 (Establishment of 911 emergency telephone service by local government-Sources and disposition of revenues-Funding) and 202 KAR 6:090 (Permitted uses by PSAPs for CMRS funds) regulations related to the landline and wireless funding.
- D. Met with Communications Manager, Amelia Bowen, and Deputy Chief, Melanie Watts, to discuss the structure of funding and inquire about any issues they had.
- E. Discussed the funding with Interim City Manager, Katie Schaller, and reviewed the two binders of information she provided from her previous review.
- F. Calculated actual budget from General Fund (001) E911 Landline Fund (272) and Wireless 911 Fund (276) and create trending information.
- G. Tested Expenditures from the E911 Landline Fund (272) and Wireless 911 Fund (276) to ensure monies spent were in compliance with funding requirements.
- H. Tested payroll related costs to E911 Landline Fund (272) and Wireless 911 Fund (276) in order to ensure all charged employees work directly in the 911 Center.
- I. Researched and had discussions with Kentucky State Police to determine why the City enters and maintains domestic orders and enters information as another entity.

## 3. Reporting:

During Phase Three, I analyzed and evaluated the results of the tests performed. I then summarized the observations and recommendations into a report format based on the analysis. A draft was provided to management for review and their management responses were incorporated into this report.

### **Statement of Standards**

The audit was performed in accordance with government auditing standards (except for the completion of an external peer review), which are promulgated by the Comptroller General of the United States. Those standards required that I plan and perform the audit to afford a reasonable basis for judgments and conclusions regarding the organization, program, activity or function under audit. An audit also includes assessments of applicable internal controls, compliance requirements under the law and regulations when necessary to satisfy the audit objectives. I believe this audit provides a reasonable basis for the conclusions.

### **Audit Conclusion**

Based on the results of this audit, the landline and wireless funds are used in compliance with grant requirements and services are billed correctly for contracted services. The one recommendation would require Warren County's approval for any update to the landline rates throughout Warren County.

## Observations and Recommendations

1. Management should work with the City of Bowling Green Board of Commissioners to request Warren County to consider revising the 911 landline fee rate or structure.

### Observation

Warren County sets the local landline fee which is \$0.68 per month on each landline phone within Warren County. This rate is one of the lowest in Kentucky which is currently 115<sup>th</sup> out of 123 Kentucky Counties. Kentucky County landline fees average \$2.00 per landline with an additional five (5) counties who have switched to alternative fee structures outside of landlines to pay for their 911 Center such as placing an annual fee per real estate parcel. Warren County local landline fee has been set at \$0.68 since November 1993 when Municipal Order No. 93-274 requested that the fee be changed to finance the Computer Aided Dispatch System. The fees listed below were included as Appendix C of the Fiscal Year 2017 Annual Report from the Kentucky 911 Services Board.

County	Fee	County	Fee	County	Fee
Garrard *	5.00	Clinton	2.50	Carroll	1.25
Elliott	4.50	Todd	2.50	Letcher	1.25
Bell	4.29	Marshall Bus.	2.50	Trigg	1.25
Harrison	4.00	Jessamine	2.25	Daviess	1.25
Butler **	4.00	McLean	2.25	Metcalfe	1.00
Powell	4.00	Edmonson	2.04	Ballard	1.00
Clay	4.00	Adair	2.00	Morgan	1.00
Lincoln ***	4.00	Green	2.00	Barren	1.00
Cumberland	4.00	Nelson	2.00	Henry	1.00
Magoffin	4.00	Oldham Res.	2.00	Hickman	1.00
Fleming	4.00	Rockcastle	2.00	Owen	1.00
Perry	3.75	Shelby	2.00	Owsley	1.00
Laurel	3.50	Simpson	2.00	Breckinridge	1.00
Lewis	3.50	Logan	2.00	Calloway	1.00
Madison	3.50	Webster	2.00	Taylor	1.00
Woodford	3.50	Gallatin	2.00	Crittenden	1.00
Oldham Bus.	3.40	Menifee	2.00	Lyon	1.00
Fayette	3.09	Floyd/P-burg Busi-ness	1.99	Washington	1.00
Montgomery	3.00	Grant	1.99	Marion	1.00
Muhlenberg	3.00	Lawrence	1.95	Franklin	1.00
Bath	3.00	Anderson	1.89	Fulton	1.00
Bourbon	3.00	Spencer	1.84	Meade	1.00
Jackson	3.00	Casey	1.75	Graves	1.00
Bullitt	3.00	Carter	1.74	Floyd/P-burg Residential	0.99
Carlisle	3.00	Johnson	1.73	Hancock	0.98
Lee	3.00	Mason	1.70	Mercer	0.80
Clark	3.00	Allen	1.50	Jefferson	0.79
Estill	3.00	Monroe	1.50	Hopkins	0.75
Whitley	3.00	Hart	1.50	Christian	0.75
Ohio	2.86	Caldwell	1.50	Warren	0.68
Boone	2.78	Knott	1.50	Livingston	0.60
Larue	2.75	Leslie	1.50	Union	0.60
Hardin	2.70	Trimble	1.50	Boyle	0.50
Grayson	2.65	Marshall Res.	1.50	Scott	0.50
McCreary	2.65	McCracken	1.50	Nicholas	-
Greenup	2.50	Pike	1.41	Pulaski	-
Henderson	2.50	Breathitt	1.35	Russell	-
Bracken	2.50	Harlan	1.25	Wayne	-
Pendleton	2.50	Knox	1.25		
Robertson	2.50	Rowan	1.25		

The landline revenues have decreased over the years as wireless phones have become the primary phone for many citizens. The table below estimates the average number of landlines in Warren County based on the revenue received from Warren County Government.

<b>Fiscal Year</b>	<b>Landline E911 Revenues</b>	<b>Avg. Monthly Revenue</b>	<b>Rate</b>	<b>Estimated No. of Landlines</b>
FY2008	198,443.56	16,536.96	0.68	24,319.06
FY2009	199,377.15	16,614.76	0.68	24,433.47
FY2010	189,687.73	15,807.31	0.68	23,246.05
FY2011	144,406.34	12,033.86	0.68	17,696.86
FY2012	151,701.39	12,641.78	0.68	18,590.86
FY2013	159,315.14	13,276.26	0.68	19,523.91
FY2014	141,370.87	11,780.91	0.68	17,324.86
FY2015	149,463.49	12,455.29	0.68	18,316.60
FY2016	160,737.10	13,394.76	0.68	19,698.17
FY2017	156,664.32	13,055.36	0.68	19,199.06

There are five (5) counties that use alternative methods to collecting 911 fees which are listed below, two (2) counties that utilize a landline fee with an additional fee on water bills and one (1) county reduced its landline fee from \$4.00 to \$2.00 as of January 2018 which is marked in the chart on the prior page of this report.

- Wolfe - 3% of toll
- Boyd - 17% of base telephone rate
- Kenton - \$60 annually per real estate parcel
- Campbell - \$45 annually per occupied bus/res
- Martin - \$75 annually per real estate parcel
- \* \$0.25 collected on monthly water bill plus landline fee
- \*\* Until 1/18, then \$2.00
- \*\*\* \$0.25 collected on monthly water bill plus landline fee

**Risk**

Without periodic updates to landline fees or changes in the base structure, the revenue source will continue to decrease which will shift higher demands on the City’s General Fund to provide services.

**Recommendation**

Management should work with the City of Bowling Green Board of Commission to request Warren County considers revising the 911 landline fee rates, which was last changed in 1993, or consider changing the structure where it is paid by a broader base. Alternative fee structures could increase the revenue by broadening the base without a heavy impact on citizens. For example, if the fee was moved from landlines to Warren County Tax Bills, it would broaden the base and more than double the revenue without a change in the rate. Using a few scenarios and utilizing the 2017 number of tax bills sent out according to the Warren County Sheriff’s Office, a change in structure could have the following impacts on this revenue stream for the 911 Center:

<b>Monthly 911 Landline Fee Converted to an Annual Rate</b>			
<u>Monthly Rate</u>	<u>Months</u>	<u>Annual Rate</u>	<u>FY2017 Landline Revenue</u>
0.68	12	8.16	\$156,664.32

<b>Assumptions</b>	<b>Annual Rate</b>	<b>2017 Tax No.</b>	<b>Projected Annual Revenue</b>	<b>Additional Revenue</b>
Current Annual Rate	\$8.16	50,666	\$413,434.56	\$256,770.24
Reduced Rate of \$0.50 per month	\$6.00	50,666	\$303,996.00	\$147,331.68
Increased Rate of \$1.00 per month	\$12.00	50,666	\$607,992.00	\$451,327.68

**Management Response**

Management has reviewed the internal audit report and will look for alternative methods to collect 911 fees for landlines in attempt to avoid further strain on the City’s General Fund to cover costs. There may be more efficient methods of collection, such as placing the fee on utility bills or requesting the fee to be placed on County property tax bills to capture the broader tax base of the county and all of the potential users of the 911 service. Another option may be to just request Warren County Fiscal Court to increase the landline fee rate, currently set at \$.68 per line, which is one of the lowest rates in the State. All of these options will need to be considered in order to solidify the funding for the 911 Center.



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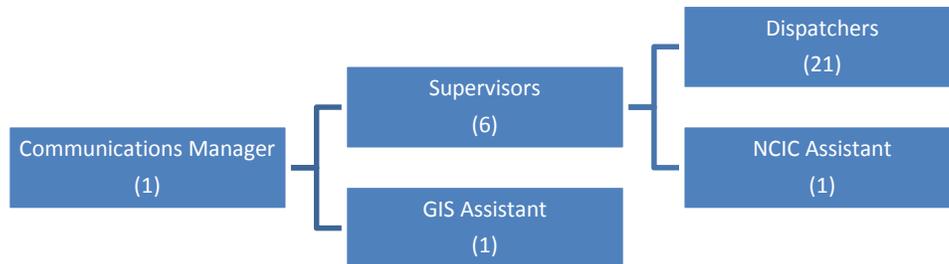
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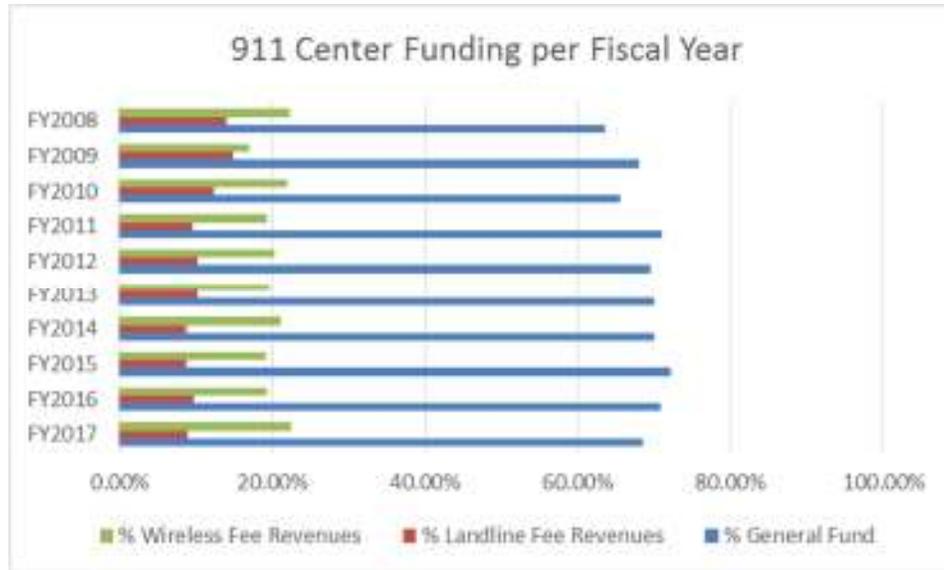
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## Observations and Recommendations

1. Management should work with the City of Bowling Green Board of Commissioners to request Warren County to consider revising the 911 landline fee rate or structure.

### Observation

Warren County sets the local landline fee which is \$0.68 per month on each landline phone within Warren County. This rate is one of the lowest in Kentucky which is currently 115<sup>th</sup> out of 123 Kentucky Counties. Kentucky County landline fees average \$2.00 per landline with an additional five (5) counties who have switched to alternative fee structures outside of landlines to pay for their 911 Center such as placing an annual fee per real estate parcel. Warren County local landline fee has been set at \$0.68 since November 1993 when Municipal Order No. 93-274 requested that the fee be changed to finance the Computer Aided Dispatch System. The fees listed below were included as Appendix C of the Fiscal Year 2017 Annual Report from the Kentucky 911 Services Board.

County	Fee	County	Fee	County	Fee
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Butler **	4.00	McLean	2.25	Metcalfe	1.00
Powell	4.00	Edmonson	2.04	Ballard	1.00
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Cumberland	4.00	Nelson	2.00	Henry	1.00
Magoffin	4.00	Oldham Res.	2.00	Hickman	1.00
Fleming	4.00	Rockcastle	2.00	Owen	1.00
Perry	3.75	Shelby	2.00	Owsley	1.00
Laurel	3.50	Simpson	2.00	Breckinridge	1.00
Lewis	3.50	Logan	2.00	Calloway	1.00
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The landline revenues have decreased over the years as wireless phones have become the primary phone for many citizens. The table below estimates the average number of landlines in Warren County based on the revenue received from Warren County Government.

<b>Fiscal Year</b>	<b>Landline E911 Revenues</b>	<b>Avg. Monthly Revenue</b>	<b>Rate</b>	<b>Estimated No. of Landlines</b>
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There are five (5) counties that use alternative methods to collecting 911 fees which are listed below, two (2) counties that utilize a landline fee with an additional fee on water bills and one (1) county reduced its landline fee from \$4.00 to \$2.00 as of January 2018 which is marked in the chart on the prior page of this report.

- Wolfe - 3% of toll
- Boyd - 17% of base telephone rate
- Kenton - \$60 annually per real estate parcel
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- \* \$0.25 collected on monthly water bill plus landline fee
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**Risk**

Without periodic updates to landline fees or changes in the base structure, the revenue source will continue to decrease which will shift higher demands on the City’s General Fund to provide services.

**Recommendation**

Management should work with the City of Bowling Green Board of Commission to request Warren County considers revising the 911 landline fee rates, which was last changed in 1993, or consider changing the structure where it is paid by a broader base. Alternative fee structures could increase the revenue by broadening the base without a heavy impact on citizens. For example, if the fee was moved from landlines to Warren County Tax Bills, it would broaden the base and more than double the revenue without a change in the rate. Using a few scenarios and utilizing the 2017 number of tax bills sent out according to the Warren County Sheriff’s Office, a change in structure could have the following impacts on this revenue stream for the 911 Center:

<b>Monthly 911 Landline Fee Converted to an Annual Rate</b>			
<u>Monthly Rate</u>	<u>Months</u>	<u>Annual Rate</u>	<u>FY2017 Landline Revenue</u>
0.68	12	8.16	\$156,664.32

<b>Assumptions</b>	<b>Annual Rate</b>	<b>2017 Tax No.</b>	<b>Projected Annual Revenue</b>	<b>Additional Revenue</b>
Current Annual Rate	\$8.16	50,666	\$413,434.56	\$256,770.24
Reduced Rate of \$0.50 per month	\$6.00	50,666	\$303,996.00	\$147,331.68
Increased Rate of \$1.00 per month	\$12.00	50,666	\$607,992.00	\$451,327.68

**Management Response**

Management has reviewed the internal audit report and will look for alternative methods to collect 911 fees for landlines in attempt to avoid further strain on the City’s General Fund to cover costs. There may be more efficient methods of collection, such as placing the fee on utility bills or requesting the fee to be placed on County property tax bills to capture the broader tax base of the county and all of the potential users of the 911 service. Another option may be to just request Warren County Fiscal Court to increase the landline fee rate, currently set at \$.68 per line, which is one of the lowest rates in the State. All of these options will need to be considered in order to solidify the funding for the 911 Center.



# City of Bowling Green

## Internal Auditor's Office

911 Center Funding Audit

Project# 2018-05

Issue Date: 05/03/18

Finalized: 07/09/18

Deborah Jenkins, CFE, CGAP, CICA

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### **Observations and Recommendations**

- 1. Management should work with the City of Bowling Green Board of Commissioners to request Warren County to consider revising the 911 landline fee rate or structure. (pg. 8-10)**

## Transmittal Letter

TO: Jeff Meisel, City Manager, Ex-officio Member  
Jeffrey Stein, Audit Committee Vice-Chair  
Vivian Grise, Audit Committee Member  
Brian Dinning, Audit Committee Member  
John Ward, Audit Committee Member  
Joe Denning, Commissioner and Audit Committee Member

CC: Doug Hawkins, Police Chief  
Melanie Watts, Deputy Chief  
Amelia Bowen, Communications Manager

Pursuant to the approved 2017/2018 Internal Audit Plan, I hereby submit the 911 Center Funding Audit. The objective of this audit is to ensure that Kentucky 911 landline and wireless funds are used in compliance with grant requirements, confirm that services provided to outside agencies are billed for the services as stated in any related contracts, and determine if additional services are performed for outside agencies by the City's 911 Center. The body of the report consists of observations, recommendations and management's responses to the recommendations.

### Results in Brief

Based on the results of this audit, the landline and wireless funds are used in compliance with grant requirements and services are billed correctly for contracted services. The one recommendation would require Warren County's approval for any update to the landline rates throughout Warren County.

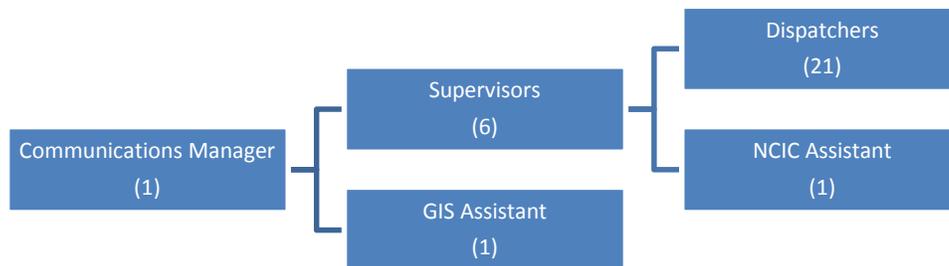
Sincerely,

Deborah Jenkins, CFE, CGAP, CICA  
Internal Auditor

## **Background**

The City of Bowling Green's Police Department Communications Center, or 911 Center, answers 911 and non-emergency calls 24 hours a day 365 days a year. The 911 Center is a Kentucky certified Public Safety Answering Point (PSAP) and dispatches police, fire, animal control, Warren County fire calls for our community as well as enters, maintains and verifies various domestic orders for the Warren County Circuit Court Clerk's Office. The 911 Center is funded by general funds from the City of Bowling Green and State and County 911 fees on landline and wireless services. The landline 911 fees are set by Warren County and the wireless fees are set by the Commonwealth of Kentucky.

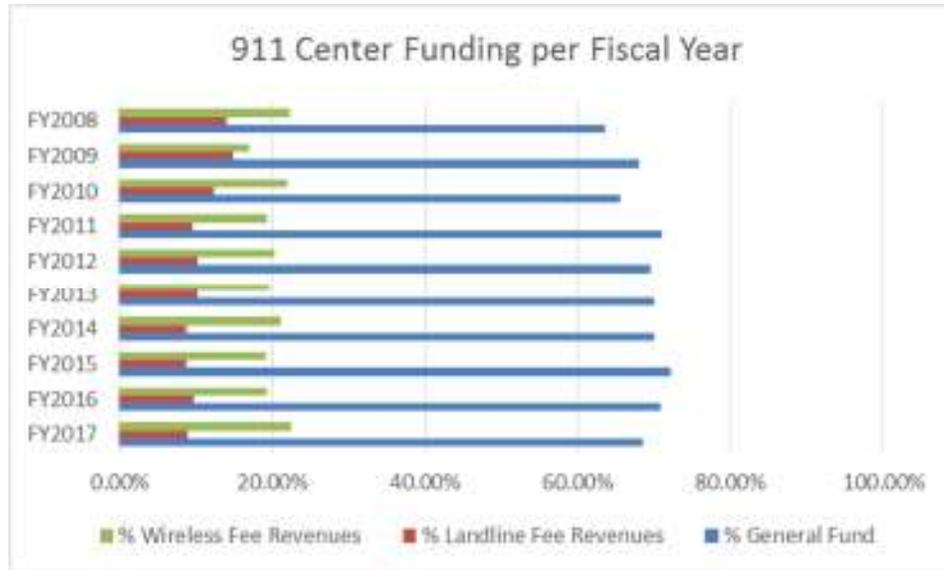
The 911 Center operates with a staff of 30 employees. The division has focused on increasing its supervisory personnel since Fiscal Year 2013 by adding five (5) supervisor positions in an effort to always have a supervisor on shift within the 911 Center.



The 911 Center expenditures have increased due to salaries, overtime and benefit costs, as well as equipment and upgrades needed to operate the division.

<b>Fiscal Year</b>	<b>Total Expenditure</b>
FY2008	\$1,216,092.37
FY2009	\$1,238,160.62
FY2010	\$1,458,710.32
FY2011	\$1,524,287.50
FY2012	\$1,380,522.14
FY2013	\$1,732,464.11
FY2014	\$1,684,519.00
FY2015	\$1,889,601.63
FY2016	\$1,605,893.61
FY2017	\$1,620,919.34

The 911 Center relies primarily on the City's General Fund with approximately 70% of the budget and the remaining 30% combined from the wireless and landline funds collected by the State and County. The graph on the following page illustrates the reliance on the City's General Fund versus the wireless and landline revenues.



With the advancement of technology, the number of landlines has dropped and the number of wireless subscribers has increased over the past 10-15 years. The City of Bowling Green has been certified as E911 wireless answering point for Bowling Green and Warren County since December 2000. The Commonwealth of Kentucky sets the wireless fee structure, collects the funds and disperses it to the approved PSAPS. According to the Kentucky Office of Homeland Security 911 Services Board’s FY2017 Annual Report:

*The 911 Services Board collects fees from cell phone customers in two manners. For those with a monthly subscription plan via a cell phone provider, \$0.70 per month is collected. For those with prepaid wireless service, \$0.93 is collected for each transaction (initial purchase and reloading of minutes).*

Within the 911 Center, activities are tracked and reported on a monthly basis within the department and on a fiscal year basis to the Kentucky 911 Services Board. The five (5) year changes in calls and activities managed through the center are shown below. There was an increase of 9,476 calls originating from a wireless phone while the landline originating calls decreased by 532 calls. Non-emergency calls also showed an increase of 5,947 calls, City fire department incidents have increased 1,750 while County fire incidents increased by 800.

Activity	FY2017	FY2016	FY2015	FY2014	FY2013	5 Year Change
911 Calls- Wireless	66,826	68,949	68,304	64,613	57,350	9,476
911 Calls- Landline/VOIP	10,454	11,959	10,111	11,081	10,986	(532)
Non-emergency Calls	161,027	167,355	166,371	163,096	155,080	5,947
Police Department Incidents Created	191,616	200,432	201,661	219,981	211,950	(20,334)
City Fire Department Incidents Created	7,234	6,797	6,223	6,030	5,484	1,750
County Fire Department Incidents Created	3,681	3,231	3,213	2,982	2,881	800
Emergency Protective Order Entered	773	617	682	801	549	224
Temporary Interpersonal Protective Order Entered	65	18	-	-	-	65
Domestic Violence Order Entered	185	179	152	188	155	30
Interpersonal Orders Entered	6	2	-	-	-	6
Orders Cleared, Expired or Dismissed	381	341	373	394	315	66
DVO Validations	333	311	315	366	455	(122)

The number of Police Department incidents decreased by over 20,000 which, according to the Communications Manager, was due to the division becoming more efficient in their processes.

The City has a contract with Warren County Fiscal Court to provide services for Warren County volunteer fire dispatching services. Municipal Order No. 2012-221 was approved on December 7, 2012 for reimbursement of services for county volunteer fire dispatching calls at an agreed upon rate of \$27,000 per year to aide in the cost of dispatching services for county fires. This amount is billed quarterly by the City's Department of Finance and the amount has remained the same since 2012.

Another increasing demand within the 911 Center is the paperwork and verifications associated with domestic orders originating from the Warren County Circuit Court Clerk's Office. The Circuit Court Clerk's Office is not open 24/7 as the 911 Center is and they do not currently have access to the National Crime Information Center (NCIC). The Clerk's Office is limited to entering domestic orders in during office hours (8 a.m. – 4 p.m. M-F) into the Law Information Network of Kentucky (LINK). The LINK system only makes the domestic order searchable within Kentucky where the City's 911 Center receives a notification within the system. The City's 911 Center then reviews the order, adds identifying information such as tattoo's and scars as well as pertinent officer safety related information such as a violent history, drug or mental illness history into the order and then they "flip" it into NCIC so the order can be searched nationwide. The 911 Center also performs verifications as required on the orders, maintains original files of the orders and destroys them according to Kentucky retention laws.

### **Objective**

The objective of this audit is to ensure that Kentucky 911 landline and wireless funds are used in compliance with grant requirements, confirm that services provided to outside agencies are billed for the services as stated in any related contracts, and determine if additional services are performed for outside agencies by the City's 911 Center.

### **Scope**

The scope of this audit includes 911 funding and expenditures from July 1, 2016 through June 30, 2017.

### **Criteria and Approach**

This audit was based on documented policies and procedures, as well as general best business practices. The approach consisted of three phases:

#### **1. Understanding the Process:**

During Phase One, an entrance conference was held to discuss objectives of the audit work, collect information and documentation, review applicable regulations and explain why this audit was selected. A review was completed of all related municipal orders and State grant requirements. Online research was conducted to review similar audits conducted on similar topics.

## 2. Sample Determination and Detailed Testing:

During Phase Two, a review and testing were conducted to evaluate funds expended from the City's General Fund, the E911 landline Fund and the Wireless 911 Fund to ensure that funds were spent as required and that applicable contracts or work for other agencies were reviewed, including:

- A. Reviewed municipal orders related to 911 communications funding and any related contracts with outside agencies.
- B. Reviewed Kentucky Office of Homeland Security Kentucky 911 Services Board's Fiscal Year 2017 Annual Report.
- C. Reviewed KRS 67.760 (Establishment of 911 emergency telephone service by local government-Sources and disposition of revenues-Funding) and 202 KAR 6:090 (Permitted uses by PSAPs for CMRS funds) regulations related to the landline and wireless funding.
- D. Met with Communications Manager, Amelia Bowen, and Deputy Chief, Melanie Watts, to discuss the structure of funding and inquire about any issues they had.
- E. Discussed the funding with Interim City Manager, Katie Schaller, and reviewed the two binders of information she provided from her previous review.
- F. Calculated actual budget from General Fund (001) E911 Landline Fund (272) and Wireless 911 Fund (276) and create trending information.
- G. Tested Expenditures from the E911 Landline Fund (272) and Wireless 911 Fund (276) to ensure monies spent were in compliance with funding requirements.
- H. Tested payroll related costs to E911 Landline Fund (272) and Wireless 911 Fund (276) in order to ensure all charged employees work directly in the 911 Center.
- I. Researched and had discussions with Kentucky State Police to determine why the City enters and maintains domestic orders and enters information as another entity.

## 3. Reporting:

During Phase Three, I analyzed and evaluated the results of the tests performed. I then summarized the observations and recommendations into a report format based on the analysis. A draft was provided to management for review and their management responses were incorporated into this report.

### **Statement of Standards**

The audit was performed in accordance with government auditing standards (except for the completion of an external peer review), which are promulgated by the Comptroller General of the United States. Those standards required that I plan and perform the audit to afford a reasonable basis for judgments and conclusions regarding the organization, program, activity or function under audit. An audit also includes assessments of applicable internal controls, compliance requirements under the law and regulations when necessary to satisfy the audit objectives. I believe this audit provides a reasonable basis for the conclusions.

### **Audit Conclusion**

Based on the results of this audit, the landline and wireless funds are used in compliance with grant requirements and services are billed correctly for contracted services. The one recommendation would require Warren County's approval for any update to the landline rates throughout Warren County.

## Observations and Recommendations

1. Management should work with the City of Bowling Green Board of Commissioners to request Warren County to consider revising the 911 landline fee rate or structure.

### Observation

Warren County sets the local landline fee which is \$0.68 per month on each landline phone within Warren County. This rate is one of the lowest in Kentucky which is currently 115<sup>th</sup> out of 123 Kentucky Counties. Kentucky County landline fees average \$2.00 per landline with an additional five (5) counties who have switched to alternative fee structures outside of landlines to pay for their 911 Center such as placing an annual fee per real estate parcel. Warren County local landline fee has been set at \$0.68 since November 1993 when Municipal Order No. 93-274 requested that the fee be changed to finance the Computer Aided Dispatch System. The fees listed below were included as Appendix C of the Fiscal Year 2017 Annual Report from the Kentucky 911 Services Board.

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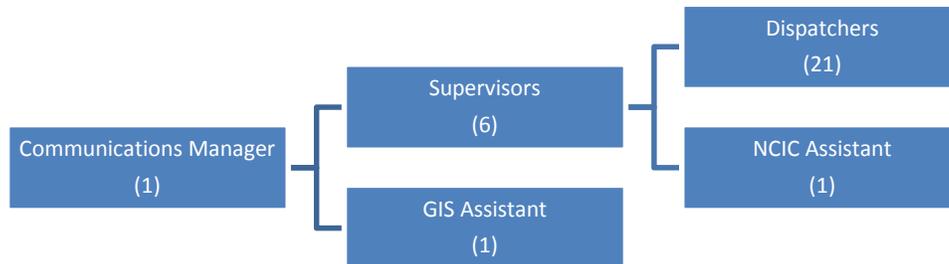
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## **Background**

The City of Bowling Green's Police Department Communications Center, or 911 Center, answers 911 and non-emergency calls 24 hours a day 365 days a year. The 911 Center is a Kentucky certified Public Safety Answering Point (PSAP) and dispatches police, fire, animal control, Warren County fire calls for our community as well as enters, maintains and verifies various domestic orders for the Warren County Circuit Court Clerk's Office. The 911 Center is funded by general funds from the City of Bowling Green and State and County 911 fees on landline and wireless services. The landline 911 fees are set by Warren County and the wireless fees are set by the Commonwealth of Kentucky.

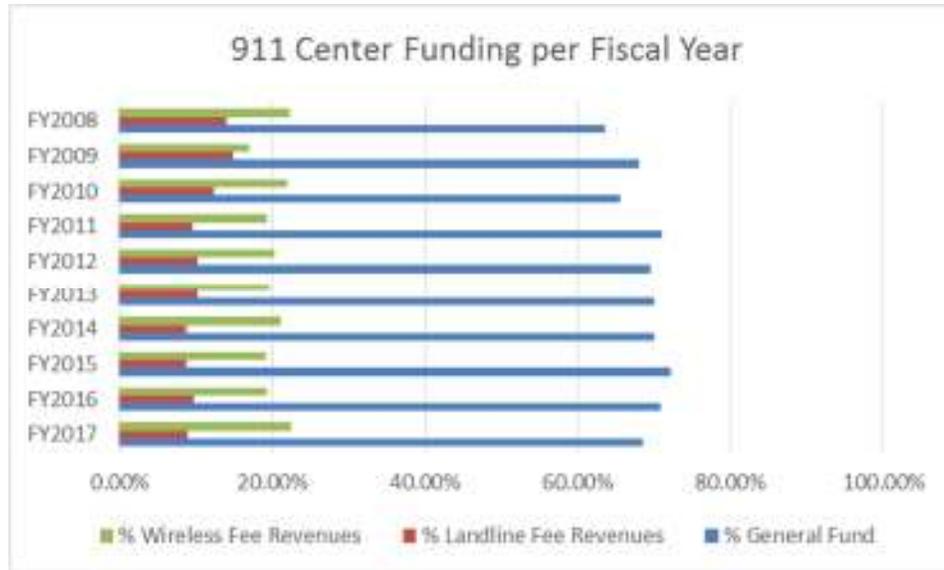
The 911 Center operates with a staff of 30 employees. The division has focused on increasing its supervisory personnel since Fiscal Year 2013 by adding five (5) supervisor positions in an effort to always have a supervisor on shift within the 911 Center.



The 911 Center expenditures have increased due to salaries, overtime and benefit costs, as well as equipment and upgrades needed to operate the division.

<b>Fiscal Year</b>	<b>Total Expenditure</b>
FY2008	\$1,216,092.37
FY2009	\$1,238,160.62
FY2010	\$1,458,710.32
FY2011	\$1,524,287.50
FY2012	\$1,380,522.14
FY2013	\$1,732,464.11
FY2014	\$1,684,519.00
FY2015	\$1,889,601.63
FY2016	\$1,605,893.61
FY2017	\$1,620,919.34

The 911 Center relies primarily on the City's General Fund with approximately 70% of the budget and the remaining 30% combined from the wireless and landline funds collected by the State and County. The graph on the following page illustrates the reliance on the City's General Fund versus the wireless and landline revenues.



With the advancement of technology, the number of landlines has dropped and the number of wireless subscribers has increased over the past 10-15 years. The City of Bowling Green has been certified as E911 wireless answering point for Bowling Green and Warren County since December 2000. The Commonwealth of Kentucky sets the wireless fee structure, collects the funds and disperses it to the approved PSAPS. According to the Kentucky Office of Homeland Security 911 Services Board’s FY2017 Annual Report:

*The 911 Services Board collects fees from cell phone customers in two manners. For those with a monthly subscription plan via a cell phone provider, \$0.70 per month is collected. For those with prepaid wireless service, \$0.93 is collected for each transaction (initial purchase and reloading of minutes).*

Within the 911 Center, activities are tracked and reported on a monthly basis within the department and on a fiscal year basis to the Kentucky 911 Services Board. The five (5) year changes in calls and activities managed through the center are shown below. There was an increase of 9,476 calls originating from a wireless phone while the landline originating calls decreased by 532 calls. Non-emergency calls also showed an increase of 5,947 calls, City fire department incidents have increased 1,750 while County fire incidents increased by 800.

Activity	FY2017	FY2016	FY2015	FY2014	FY2013	5 Year Change
911 Calls- Wireless	66,826	68,949	68,304	64,613	57,350	9,476
911 Calls- Landline/VOIP	10,454	11,959	10,111	11,081	10,986	(532)
Non-emergency Calls	161,027	167,355	166,371	163,096	155,080	5,947
Police Department Incidents Created	191,616	200,432	201,661	219,981	211,950	(20,334)
City Fire Department Incidents Created	7,234	6,797	6,223	6,030	5,484	1,750
County Fire Department Incidents Created	3,681	3,231	3,213	2,982	2,881	800
Emergency Protective Order Entered	773	617	682	801	549	224
Temporary Interpersonal Protective Order Entered	65	18	-	-	-	65
Domestic Violence Order Entered	185	179	152	188	155	30
Interpersonal Orders Entered	6	2	-	-	-	6
Orders Cleared, Expired or Dismissed	381	341	373	394	315	66
DVO Validations	333	311	315	366	455	(122)

The number of Police Department incidents decreased by over 20,000 which, according to the Communications Manager, was due to the division becoming more efficient in their processes.

The City has a contract with Warren County Fiscal Court to provide services for Warren County volunteer fire dispatching services. Municipal Order No. 2012-221 was approved on December 7, 2012 for reimbursement of services for county volunteer fire dispatching calls at an agreed upon rate of \$27,000 per year to aide in the cost of dispatching services for county fires. This amount is billed quarterly by the City's Department of Finance and the amount has remained the same since 2012.

Another increasing demand within the 911 Center is the paperwork and verifications associated with domestic orders originating from the Warren County Circuit Court Clerk's Office. The Circuit Court Clerk's Office is not open 24/7 as the 911 Center is and they do not currently have access to the National Crime Information Center (NCIC). The Clerk's Office is limited to entering domestic orders in during office hours (8 a.m. – 4 p.m. M-F) into the Law Information Network of Kentucky (LINK). The LINK system only makes the domestic order searchable within Kentucky where the City's 911 Center receives a notification within the system. The City's 911 Center then reviews the order, adds identifying information such as tattoo's and scars as well as pertinent officer safety related information such as a violent history, drug or mental illness history into the order and then they "flip" it into NCIC so the order can be searched nationwide. The 911 Center also performs verifications as required on the orders, maintains original files of the orders and destroys them according to Kentucky retention laws.

### **Objective**

The objective of this audit is to ensure that Kentucky 911 landline and wireless funds are used in compliance with grant requirements, confirm that services provided to outside agencies are billed for the services as stated in any related contracts, and determine if additional services are performed for outside agencies by the City's 911 Center.

### **Scope**

The scope of this audit includes 911 funding and expenditures from July 1, 2016 through June 30, 2017.

### **Criteria and Approach**

This audit was based on documented policies and procedures, as well as general best business practices. The approach consisted of three phases:

#### **1. Understanding the Process:**

During Phase One, an entrance conference was held to discuss objectives of the audit work, collect information and documentation, review applicable regulations and explain why this audit was selected. A review was completed of all related municipal orders and State grant requirements. Online research was conducted to review similar audits conducted on similar topics.

## 2. Sample Determination and Detailed Testing:

During Phase Two, a review and testing were conducted to evaluate funds expensed from the City's General Fund, the E911 landline Fund and the Wireless 911 Fund to ensure that funds were spent as required and that applicable contracts or work for other agencies were reviewed, including:

- A. Reviewed municipal orders related to 911 communications funding and any related contracts with outside agencies.
- B. Reviewed Kentucky Office of Homeland Security Kentucky 911 Services Board's Fiscal Year 2017 Annual Report.
- C. Reviewed KRS 67.760 (Establishment of 911 emergency telephone service by local government-Sources and disposition of revenues-Funding) and 202 KAR 6:090 (Permitted uses by PSAPs for CMRS funds) regulations related to the landline and wireless funding.
- D. Met with Communications Manager, Amelia Bowen, and Deputy Chief, Melanie Watts, to discuss the structure of funding and inquire about any issues they had.
- E. Discussed the funding with Interim City Manager, Katie Schaller, and reviewed the two binders of information she provided from her previous review.
- F. Calculated actual budget from General Fund (001) E911 Landline Fund (272) and Wireless 911 Fund (276) and create trending information.
- G. Tested Expenditures from the E911 Landline Fund (272) and Wireless 911 Fund (276) to ensure monies spent were in compliance with funding requirements.
- H. Tested payroll related costs to E911 Landline Fund (272) and Wireless 911 Fund (276) in order to ensure all charged employees work directly in the 911 Center.
- I. Researched and had discussions with Kentucky State Police to determine why the City enters and maintains domestic orders and enters information as another entity.

## 3. Reporting:

During Phase Three, I analyzed and evaluated the results of the tests performed. I then summarized the observations and recommendations into a report format based on the analysis. A draft was provided to management for review and their management responses were incorporated into this report.

### **Statement of Standards**

The audit was performed in accordance with government auditing standards (except for the completion of an external peer review), which are promulgated by the Comptroller General of the United States. Those standards required that I plan and perform the audit to afford a reasonable basis for judgments and conclusions regarding the organization, program, activity or function under audit. An audit also includes assessments of applicable internal controls, compliance requirements under the law and regulations when necessary to satisfy the audit objectives. I believe this audit provides a reasonable basis for the conclusions.

### **Audit Conclusion**

Based on the results of this audit, the landline and wireless funds are used in compliance with grant requirements and services are billed correctly for contracted services. The one recommendation would require Warren County's approval for any update to the landline rates throughout Warren County.

## Observations and Recommendations

1. Management should work with the City of Bowling Green Board of Commissioners to request Warren County to consider revising the 911 landline fee rate or structure.

### Observation

Warren County sets the local landline fee which is \$0.68 per month on each landline phone within Warren County. This rate is one of the lowest in Kentucky which is currently 115<sup>th</sup> out of 123 Kentucky Counties. Kentucky County landline fees average \$2.00 per landline with an additional five (5) counties who have switched to alternative fee structures outside of landlines to pay for their 911 Center such as placing an annual fee per real estate parcel. Warren County local landline fee has been set at \$0.68 since November 1993 when Municipal Order No. 93-274 requested that the fee be changed to finance the Computer Aided Dispatch System. The fees listed below were included as Appendix C of the Fiscal Year 2017 Annual Report from the Kentucky 911 Services Board.

County	Fee	County	Fee	County	Fee
Garrard *	5.00	Clinton	2.50	Carroll	1.25
Elliott	4.50	Todd	2.50	Letcher	1.25
Bell	4.29	Marshall Bus.	2.50	Trigg	1.25
Harrison	4.00	Jessamine	2.25	Daviess	1.25
Butler **	4.00	McLean	2.25	Metcalfe	1.00
Powell	4.00	Edmonson	2.04	Ballard	1.00
Clay	4.00	Adair	2.00	Morgan	1.00
Lincoln ***	4.00	Green	2.00	Barren	1.00
Cumberland	4.00	Nelson	2.00	Henry	1.00
Magoffin	4.00	Oldham Res.	2.00	Hickman	1.00
Fleming	4.00	Rockcastle	2.00	Owen	1.00
Perry	3.75	Shelby	2.00	Owsley	1.00
Laurel	3.50	Simpson	2.00	Breckinridge	1.00
Lewis	3.50	Logan	2.00	Calloway	1.00
Madison	3.50	Webster	2.00	Taylor	1.00
Woodford	3.50	Gallatin	2.00	Crittenden	1.00
Oldham Bus.	3.40	Menifee	2.00	Lyon	1.00
Fayette	3.09	Floyd/P-burg Busi-ness	1.99	Washington	1.00
Montgomery	3.00	Grant	1.99	Marion	1.00
Muhlenberg	3.00	Lawrence	1.95	Franklin	1.00
Bath	3.00	Anderson	1.89	Fulton	1.00
Bourbon	3.00	Spencer	1.84	Meade	1.00
Jackson	3.00	Casey	1.75	Graves	1.00
Bullitt	3.00	Carter	1.74	Floyd/P-burg Residential	0.99
Carlisle	3.00	Johnson	1.73	Hancock	0.98
Lee	3.00	Mason	1.70	Mercer	0.80
Clark	3.00	Allen	1.50	Jefferson	0.79
Estill	3.00	Monroe	1.50	Hopkins	0.75
Whitley	3.00	Hart	1.50	Christian	0.75
Ohio	2.86	Caldwell	1.50	Warren	0.68
Boone	2.78	Knott	1.50	Livingston	0.60
Larue	2.75	Leslie	1.50	Union	0.60
Hardin	2.70	Trimble	1.50	Boyle	0.50
Grayson	2.65	Marshall Res.	1.50	Scott	0.50
McCreary	2.65	McCracken	1.50	Nicholas	-
Greenup	2.50	Pike	1.41	Pulaski	-
Henderson	2.50	Breathitt	1.35	Russell	-
Bracken	2.50	Harlan	1.25	Wayne	-
Pendleton	2.50	Knox	1.25		
Robertson	2.50	Rowan	1.25		

The landline revenues have decreased over the years as wireless phones have become the primary phone for many citizens. The table below estimates the average number of landlines in Warren County based on the revenue received from Warren County Government.

<b>Fiscal Year</b>	<b>Landline E911 Revenues</b>	<b>Avg. Monthly Revenue</b>	<b>Rate</b>	<b>Estimated No. of Landlines</b>
FY2008	198,443.56	16,536.96	0.68	24,319.06
FY2009	199,377.15	16,614.76	0.68	24,433.47
FY2010	189,687.73	15,807.31	0.68	23,246.05
FY2011	144,406.34	12,033.86	0.68	17,696.86
FY2012	151,701.39	12,641.78	0.68	18,590.86
FY2013	159,315.14	13,276.26	0.68	19,523.91
FY2014	141,370.87	11,780.91	0.68	17,324.86
FY2015	149,463.49	12,455.29	0.68	18,316.60
FY2016	160,737.10	13,394.76	0.68	19,698.17
FY2017	156,664.32	13,055.36	0.68	19,199.06

There are five (5) counties that use alternative methods to collecting 911 fees which are listed below, two (2) counties that utilize a landline fee with an additional fee on water bills and one (1) county reduced its landline fee from \$4.00 to \$2.00 as of January 2018 which is marked in the chart on the prior page of this report.

- Wolfe - 3% of toll
- Boyd - 17% of base telephone rate
- Kenton - \$60 annually per real estate parcel
- Campbell - \$45 annually per occupied bus/res
- Martin - \$75 annually per real estate parcel
- \* \$0.25 collected on monthly water bill plus landline fee
- \*\* Until 1/18, then \$2.00
- \*\*\* \$0.25 collected on monthly water bill plus landline fee

**Risk**

Without periodic updates to landline fees or changes in the base structure, the revenue source will continue to decrease which will shift higher demands on the City’s General Fund to provide services.

**Recommendation**

Management should work with the City of Bowling Green Board of Commission to request Warren County considers revising the 911 landline fee rates, which was last changed in 1993, or consider changing the structure where it is paid by a broader base. Alternative fee structures could increase the revenue by broadening the base without a heavy impact on citizens. For example, if the fee was moved from landlines to Warren County Tax Bills, it would broaden the base and more than double the revenue without a change in the rate. Using a few scenarios and utilizing the 2017 number of tax bills sent out according to the Warren County Sheriff’s Office, a change in structure could have the following impacts on this revenue stream for the 911 Center:

<b>Monthly 911 Landline Fee Converted to an Annual Rate</b>			
<u>Monthly Rate</u>	<u>Months</u>	<u>Annual Rate</u>	<u>FY2017 Landline Revenue</u>
0.68	12	8.16	\$156,664.32

<b>Assumptions</b>	<b>Annual Rate</b>	<b>2017 Tax No.</b>	<b>Projected Annual Revenue</b>	<b>Additional Revenue</b>
Current Annual Rate	\$8.16	50,666	\$413,434.56	\$256,770.24
Reduced Rate of \$0.50 per month	\$6.00	50,666	\$303,996.00	\$147,331.68
Increased Rate of \$1.00 per month	\$12.00	50,666	\$607,992.00	\$451,327.68

**Management Response**

Management has reviewed the internal audit report and will look for alternative methods to collect 911 fees for landlines in attempt to avoid further strain on the City’s General Fund to cover costs. There may be more efficient methods of collection, such as placing the fee on utility bills or requesting the fee to be placed on County property tax bills to capture the broader tax base of the county and all of the potential users of the 911 service. Another option may be to just request Warren County Fiscal Court to increase the landline fee rate, currently set at \$.68 per line, which is one of the lowest rates in the State. All of these options will need to be considered in order to solidify the funding for the 911 Center.