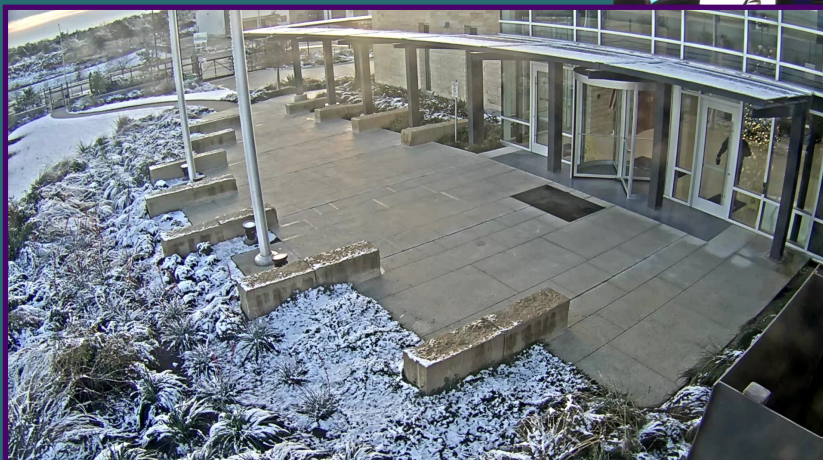


# BEXAR METRO 9-1-1 NETWORK

# 2018

# ANNUAL REPORT



*“The District’s mission is to deploy and maintain a state-of-the-art 9-1-1 emergency communication system that enables citizens in distress to quickly communicate their requests for police, fire, or emergency medical assistance; and to ensure member jurisdictions have the appropriate 9-1-1 tools necessary to efficiently and accurately receive and process those requests.”*



## MESSAGE FROM THE CHAIRMAN OF THE BOARD

**January 2019**

On behalf of the Bexar Metro 9-1-1 Network Board of Directors and staff, I am proud to present to you the Bexar Metro Fiscal Year 2018 Annual Report.

This publication provides accounting of Bexar Metro's Fiscal Year 2018 revenues and expenditures and an overview of the programs and services that we provided to member jurisdictions during the year. We believe that you will be impressed with the breadth and quality of emergency communication services that Bexar Metro provides to its constituents; the citizens of Bexar, Comal, and Guadalupe Counties.

Accompanying this Annual Report is a copy of the financial auditor's report for Fiscal Year 2018. Please note that the Independent Accountants' Report on Financial Statements and Supplementary Information gave Bexar Metro an unqualified opinion, the best classification possible.

I am especially pleased to report the Quarry Run Regional Operations Center continues its 24/7 support to its anchor tenant, the Bexar County Public Safety Communications Center. In addition, it seamlessly performed its role as backup PSAP for the City of San Antonio's Police and Fire Emergency Communications Centers and our remaining 18 District PSAPs.

Bexar Metro welcomes your feedback and questions on the information provided in both the Annual Report and the Audit Report or any programs and services we provide. If you have questions or would like additional information, please do not hesitate to call the Bexar Metro administrative office at (210) 408-3911.

Thank you for your continued support of the Bexar Metro 9-1-1 Network.

Sincerely,

James C. Hasslocher

Chairman



# THE BOARD OF DIRECTORS

The authority for the Bexar Metro 9-1-1 Network is Texas Health and Safety Code, Chapter 772, Subchapter D, Section 772.301—formerly Vernon’s Annotated Civil Statutes Article 1432e, as approved by the Texas 69<sup>th</sup> Regular Legislative Session in Senate Bill 750 on May 21, 1985; and subsequently approved by a local election on January 17, 1987.

The Bexar Metro Board is the governing body appointed by member counties and municipalities; and has the statutory authority to control and manage the District by providing oversight of policy and fiscal matters. The Executive Director of Bexar Metro is appointed by the Board and is responsible for the overall management of District matters.

The following is a list of the current Board members and the entities that they represent:

James C. Hasslocher (Chairman)	Bexar County
Stephen R. Schneider	Bexar County
Sherman Krause	Comal County
Dudley Wait	Guadalupe County
Heberto Gutierrez	City of San Antonio
William McManus	City of San Antonio
Cathy C. Talcott	City of New Braunfels
Suzanne de Leon	Bexar County Council of Mayors



**Jimmy C.  
Hasslocher**



**Stephen R.  
Schneider**



**Judge Sherman  
Krause**



**Dudley Wait**



**Heberto  
Gutierrez**



**Chief William  
McManus**



**Kathy C.  
Talcott**



**Suzanne  
de Leon**

# OUR MISSION



As the Bexar Metro 9-1-1 Network Chief Executive Officer, it is my privilege to be the chief executive responsible for the overall operations of the District. With direction and support from the Board, it is my responsibility to secure and manage the necessary financial, staff, technical, and operational resources necessary to lead Bexar Metro to successfully accomplish the following mission:

*The District's mission is to deploy and maintain a state-of-the-art 9-1-1 emergency communication system that enables citizens in distress to quickly communicate their requests for police, fire, or emergency medical assistance; and to ensure member jurisdictions have the appropriate 9-1-1 tools necessary to efficiently and accurately receive and process those requests.*

The Bexar Metro staff is a highly effective and experienced team of 9-1-1 professionals dedicated to providing our constituents with the most effective and efficient 9-1-1 emergency communication services available. The staff consists of a team of Subject Matter Experts that complement each other in the District's provision and management of one of the top 9-1-1 systems in the country. We are fortunate to have such a strong support staff. The following page provides you with an illustration of the Bexar Metro staff structure.

This annual report will provide you a synopsis of a few accomplishments and services that Bexar Metro provided its citizens and member jurisdictions during fiscal year 2018. The latest information on the Quarry Run Regional Operations Center and its continued impact District-wide is included as well.

The report also summarizes revenues and expenditures that were necessary for successful operations and my sworn statement affirming that the 2018 financial summary provided is true and accurate.

If you would like additional information, please call the Bexar Metro administrative office at (210) 408-3911. We will be glad to assist.

W. H. Buchholtz

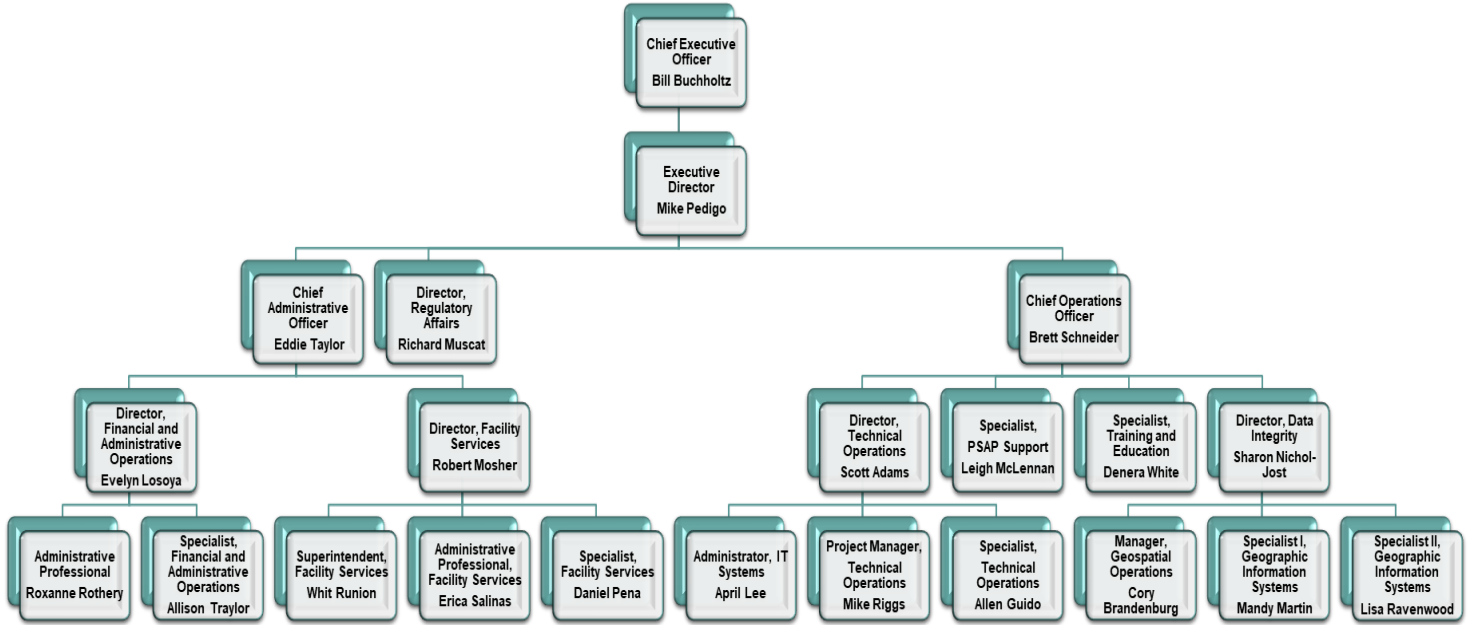
Chief Executive Officer





BEXAR METRO

# ORGANIZATIONAL CHART



# OUR RESPONSIBILITIES

As the 9-1-1 world changes, Bexar Metro continues to work diligently to evolve with it. To that end, Bexar Metro continues to maintain a highly experienced and competent staff to meet District needs. We have retained senior staff members who've been with us since the early days, some even before 9-1-1 as we know it was fully implemented. Those team members built databases, developed the District digital map from scratch, installed various iterations of 9-1-1 CPE and networks, and set the foundation in-place which makes ours one of the leading 9-1-1 entities in the Nation.

We are very proud of our accomplishments but we refuse to rest on our laurels. We've also been mindful over time that additional skillsets are required if we are to continue to stay out in front. We've been very selective and are fortunate to have added additional talent to our team.

That said, we recognize it's very important that Bexar Metro's new hires share the core values that have made the team successful. Bexar Metro's screening process has proven useful and ensures new staff continues to meet our stringent background and security requirements as we bolster our knowledge base. Our natural and adaptive behaviors and motivator assessments ensure the District's culture is preserved and the mission is achieved daily.



Bexar Metro Staff escorting CSEC (Commission State Emergency Communications) members during a regional meeting hosted by Bexar Metro at Quarry Run.

Bexar Metro Staff at the 2018 Texas Public Safety Conference, hosted by TX APCO and TX NENA. ("Out of this World," Sci-Fi theme)



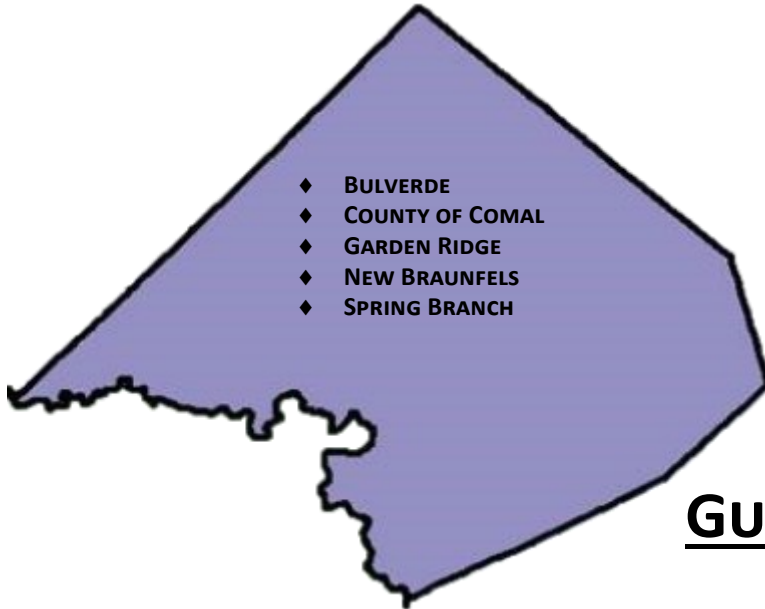
Our group is cohesive and together has established a set of shared core values. Those include *Accountability, Honesty/Integrity, Commitment to Service, Service Excellence, and Agility/Adaptability*. We use these as a baseline with which we measure our successes as we accomplish our goals and our objectives.

Though our staff is relatively small, that size doesn't directly mirror our scope or responsibility. In addition to the 21 PSAPs and 40 jurisdictions we support, we are also directly responsible for successful 9-1-1 call delivery for more than 1.8 million calls annually, and to the more than 2 million citizens we serve. We proudly accept that responsibility and it guides our focus each day.



# MEMBER JURISDICTIONS

## COMAL COUNTY



- ◆ BULVERDE
- ◆ COUNTY OF COMAL
- ◆ GARDEN RIDGE
- ◆ NEW BRAUNFELS
- ◆ SPRING BRANCH

## GUADALUPE COUNTY



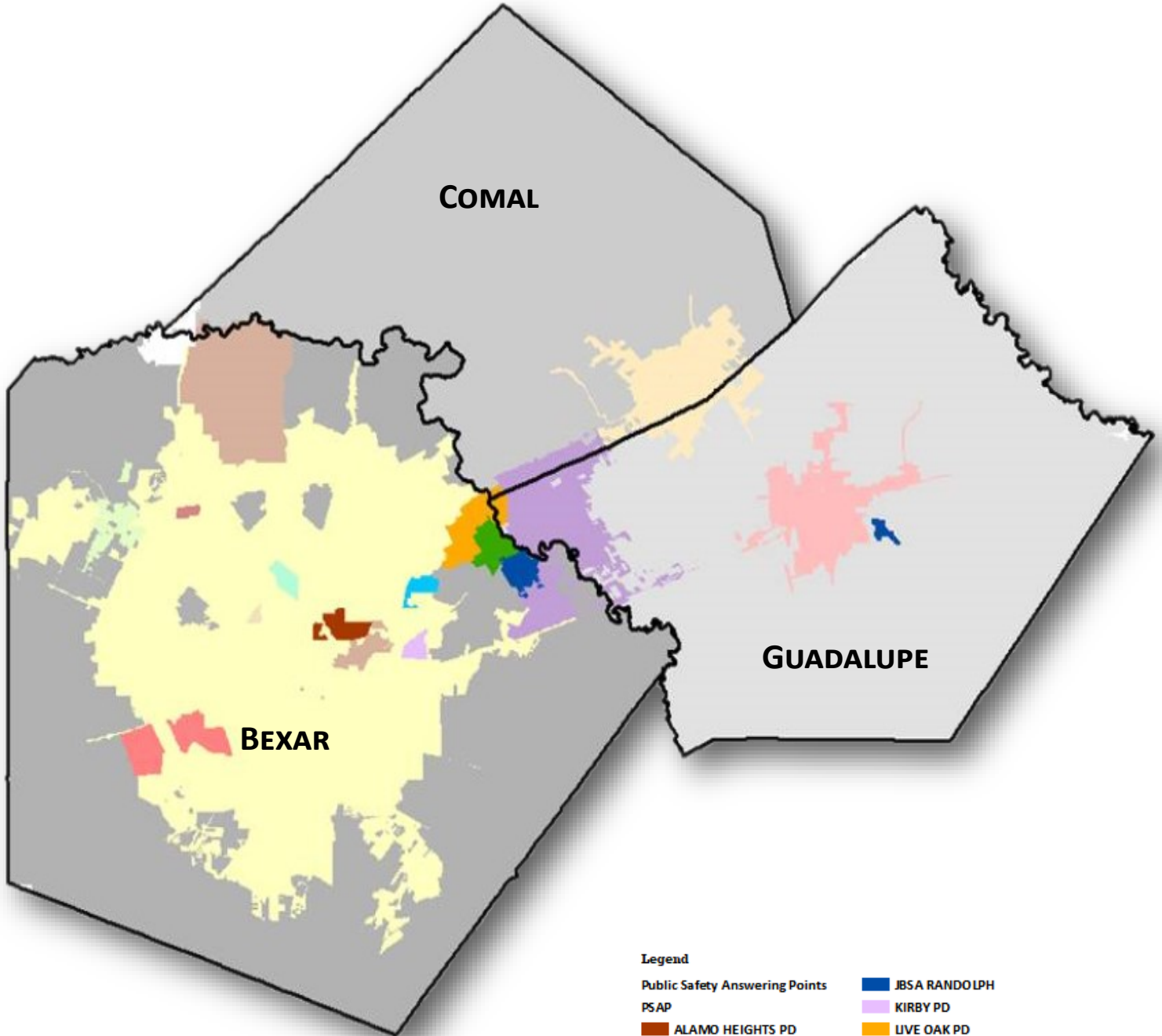
- ◆ CIBOLO
- ◆ COUNTY OF GUADALUPE
- ◆ KINGSBURY
- ◆ MARION
- ◆ NEW BERLIN
- ◆ SANTA CLARA
- ◆ SCHERTZ
- ◆ SEGUIN
- ◆ SELMA
- ◆ STAPLES

## BEXAR COUNTY



- ◆ ALAMO HEIGHTS
- ◆ BALCONES HEIGHTS
- ◆ CASTLE HILLS
- ◆ CHINA GROVE
- ◆ CONVERSE
- ◆ COUNTY OF BEXAR
- ◆ ELMENDORF
- ◆ FAIR OAKS RANCH
- ◆ GREY FOREST
- ◆ HELOTES
- ◆ HILL COUNTRY VILLAGE
- ◆ HOLLYWOOD PARK
- ◆ KIRBY
- ◆ LEON VALLEY
- ◆ LIVE OAK
- ◆ OLMOS PARK
- ◆ SAN ANTONIO
- ◆ SANDY OAKS
- ◆ SHAVANO PARK
- ◆ SOMERSET
- ◆ ST HEDWIG
- ◆ TERRELL HILLS
- ◆ UNIVERSAL CITY
- ◆ VON ORMY
- ◆ WINDCREST

# PSAP SERVICE AREAS



**Legend**

- |                                |                         |
|--------------------------------|-------------------------|
| Public Safety Answering Points | JBSA RANDOLPH           |
| PSAP                           | KIRBY PD                |
| ALAMO HEIGHTS PD               | LIVE OAK PD             |
| BALCONES HEIGHTS PD            | NEW BRAUNFELS PD        |
| BEXAR COUNTY SHERIFF           | SAN ANTONIO PD FIRE/EMS |
| CASTLE HILLS PD                | SCHERTZ PD              |
| COMAL COUNTY SHERIFF           | SEGUIN PD               |
| GUADALUPE COUNTY SHERIFF       | UNIVERSAL CITY PD       |
| HELOTES PD                     | UTSA PD                 |
| JBSA FT. SAM HOUSTON           | WINDCREST PD            |
| JBSA LACKLAND                  |                         |



# BEXAR METRO 9-1-1 NETWORK

## PSAP MAP UPDATES

The Bexar Metro 9-1-1 digital map is updated daily to ensure an accurate reflection of addresses, streets, and boundaries are represented seamlessly for Bexar, Comal, and Guadalupe Counties. Currently, throughout the three-county region, there exist approximately 123,000 street segments, 773,000 address points, and 500 polygons which are populated with municipal, unincorporated, and emergency service zone (ESZ) areas. Numerous map changes flow in from plat recordation and various addressing coordinator updates from across the District. Each plat is processed in-house and validated to ensure characteristics for house number, street name, address range, ESZ, and county are populated correctly to enable accurate 9-1-1 call map display at each Public Safety Answering Point (PSAP). Also, all address and street modifications are validated against the Master Street Address Guide (MSAG) database to ensure proper routing of 9-1-1 calls to each PSAP.

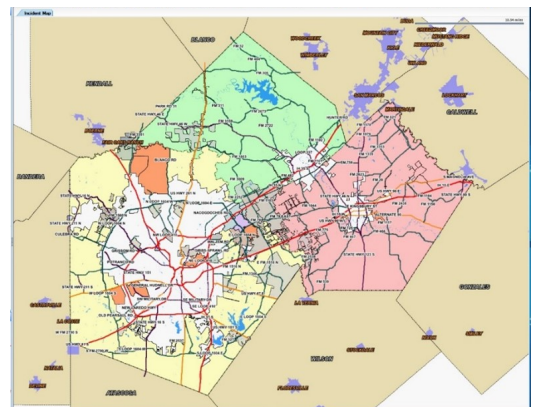
Bexar Metro GIS staff are able to distribute map updates faster due to a recent upgrade to the Vesta 9-1-1 map during fiscal year 2018. There are 214 clients to update every 45 days, and the process has evolved from manually updating each PSAP with media to sending data across a network housed at Quarry Run and Brooks data centers, known as System 1A/1B and System 2A/2B. Data transfer is simpler now with multiple AT&T Switched Ethernet circuits (ASE) which serve as a backbone to transport map data to each 9-1-1 call center in an efficient manner. The map update is initialized from our Quarry Run facility using a map publisher to detect changes and rebuild spatial searches. Data is then distributed via a Datasync Server to all PSAPs on System 1. Another scheduled job is utilized to synchronize updates to Brooks and all System 2 PSAPs.

Map updates are coordinated and timed more frequently in the event a boundary changes due to the following reasons:

- **Annexation** - City limits expand and require an update to existing information at the PSAP.
- **Deannexation** - Annexed areas may be swapped with another entity, which in turn creates an area of responsibility revision for adjacent municipalities or unincorporated regions.
- **Service Boundary change** - Fire or EMS boundaries can change throughout the region, and map updates are used to facilitate a smooth transition for 9-1-1 call delivery and response.
- **PSAP commission/decommission or change** - The responsibility of 9-1-1 call answering can change and a map update represents a newly assigned PSAP for a specific territory.

During the 2018 fiscal year there were 10 annexations, 6 voluntary annexations, and 6 service boundary changes within the three-county area.

Regardless of jurisdiction, changes were handled with quick communication and timely updated information to each PSAP. The edits were processed in a Geographic Information System (GIS) and disseminated to the proper jurisdiction to aid in 9-1-1 call delivery and map display.



\*Representation of the new Vesta 9-1-1 map

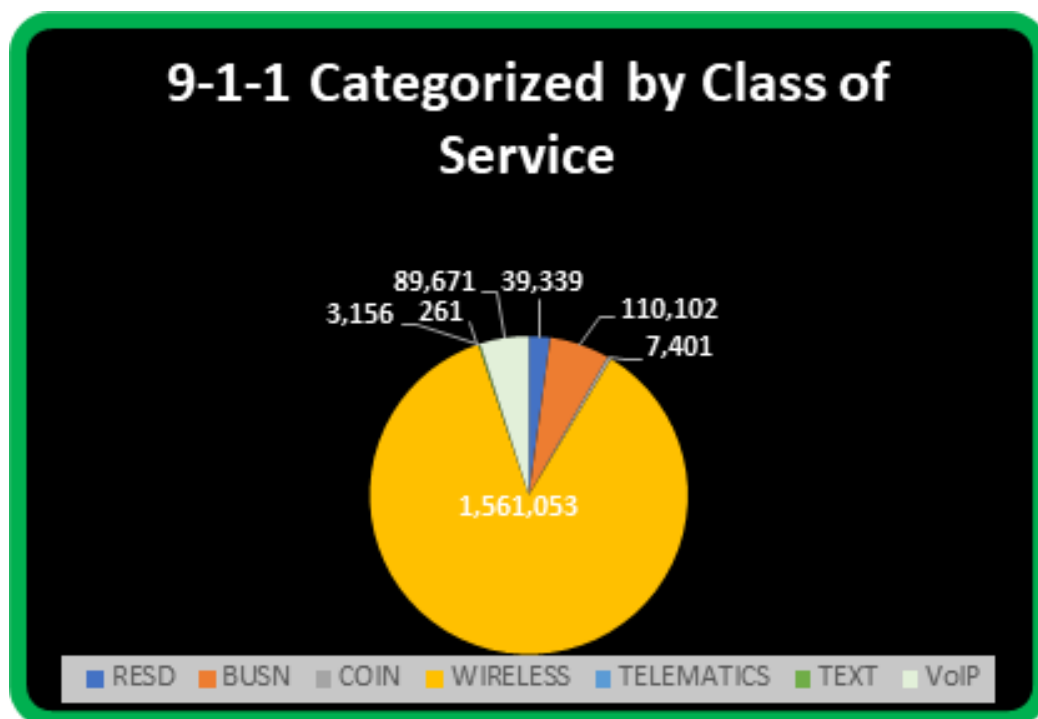
# 9-1-1 CLASS OF SERVICE TRACKING



The National Emergency Number Association (NENA) defines class of service as a designation of the type of telephone service used to generate a 9-1-1 call, e.g. residential, business, coin, wireless. Public Safety Answering Points (PSAPs) in the Bexar Metro 9-1-1 Network received over 1.8 million requests for service during the 2018 fiscal year. Each 9-1-1 request for service is tracked by a unique class of service code that allows a telecommunicator to determine basic information from the device used to generate each 9-1-1 call. Bexar Metro staff combines different codes delivered into the PSAP to create a class of service report using seven categories which give a yearly accrual and snapshot of residential, business, coin, wireless, telematics, text, and Voice over Internet Protocol (VoIP). Currently, classification codes clarify the following situations about a 9-1-1 call.

- Wireless and VoIP calls are classified differently to help determine the expected level of location accuracy. The 9-1-1 caller could be fixed, mobile, or nomadic VoIP.
- The 9-1-1 customer premise equipment can use a different class of service to aid in mapping a call based on x, y coordinates or the civic location.
- Each classification can aid in how a telecommunicator handles delivery of a 9-1-1 call from commercial buildings versus a single-family residence or dispatching a 9-1-1 hang up call with no answer on callback.

Our mobile society results in the majority of 9-1-1 calls being generated from a wireless device. On a yearly average, over 85% of 9-1-1 calls are wireless. The class of service types WRLS (cell tower location) and WPH2 (approximate caller location) associated with wireless call assist the call taker in determining the location accuracy of a mobile caller. For illustration purposes, the graph below depicts a categorized approach of 9-1-1 class of service types in Bexar, Comal, and Guadalupe Counties.





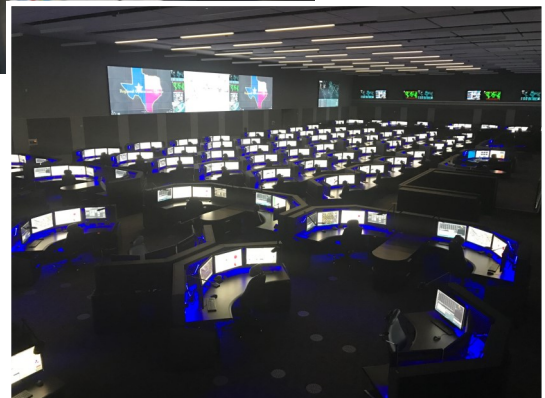
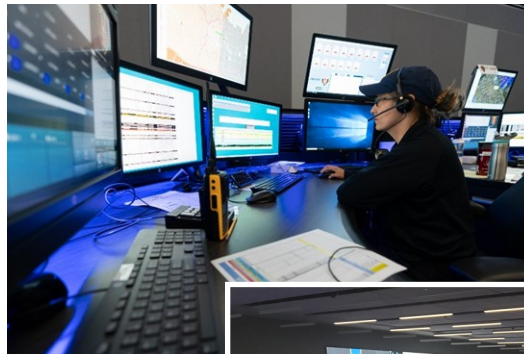
# EVOLUTION OF 9-1-1

## NG9-1-1

In November 1967, the Federal Communications Commission (FCC) met with the American Telephone and Telegraph Company to find a means of establishing a universal emergency number that could be implemented quickly. In 1968, the digits 9-1-1 (nine-one-one) were established as the emergency code throughout the United States. With Enhanced 9-1-1, or E9-1-1, local PSAPs were given the option and responsibility to purchase telephone answering equipment from the vendor of their choice, creating multiple platforms or systems available to any PSAP for answering emergency calls. Nearly thirty years later, new standards were announced for “Next Generation” or NG9-1-1 IP-based systems, marking the industries transition towards true IP “networks.”

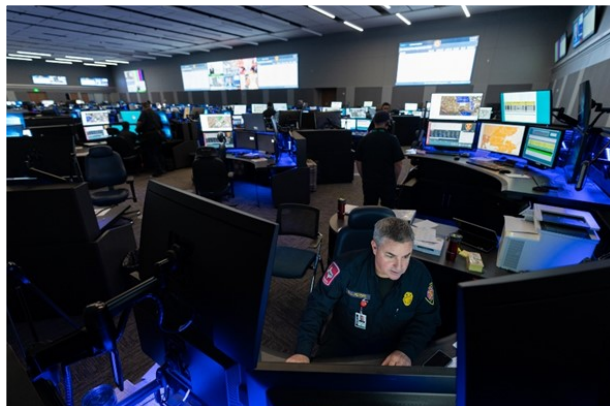
Today’s rapidly changing world of next generation 9-1-1 communications systems require supporting agencies and networks to adapt and evolve at a pace far greater than at any time in its nearly fifty years, and Bexar Metro is meeting these challenges.

Throughout the second half of 2017 and much of 2018, Bexar Metro was busily upgrading the call taking customer premise equipment (CPE) for all the PSAPs in the three-county region, including our new headquartered operations facility at Quarry Run, and the Brooks City Base on the other side of town. This was a very different approach, taking the core of the system and moving it to a traditional hub-and-spoke type of client and server design, paving the way for NG9-1-1 IP-based call taking and call handling.



With the new Vesta 9-1-1 system in place, we were able to create a redundant, robust core housed at both Quarry Run and Brooks, with each system serving to back up the other. Each agency has multiple consoles with the ability to connect to either site on either primary system, and layered survivability added with the ability to run off the site’s secondary system in the event of any system-wide event. These new systems use IP Networking across new, diverse path ASE (or switched ethernet) circuits. This allows everything to be IP “addressable” which enables us to deliver more data and services such as video and text, across what used to be copper voice only lines. This will be further enhanced as we’re moving to the ESI network which is fully IP-based to allow additional services, as well as agency-to-agency internetworking capabilities.

Additionally, these upgrades over the past year are allowing Bexar Metro to serve new technologies and protect emergency calls with new standards. We’ve added Long Term Evolution (LTE) cellular communications to all of the PSAPs as a tertiary redundancy, we can host any PSAP at Quarry Run in a contingency or semi-permanent function, we’re providing greatly improved analytical data with new tools and dashboards, and we have the ability to expand our standard telephone systems to true “enterprise” grade for easily communicating and transferring non-emergency voice calls.



All these upgrades and enhancements are continually blurring the lines between 9-1-1 Emergency Networks and common IP-Based networks seen in traditional operations such as retail and banking. New Text-to-9-1-1 applications will become common place for consumers and callers, as will the need to support new media such as video and digital photographs. The forthcoming ESInet will be a catalyst for much of the 9-1-1 future trends, and Bexar Metro plans to stay on the leading edge. As Bexar Metro advances these technologies, we will never lose sight of the importance of securing and protecting all that data. Like the tools we're putting in place to deliver new services, we'll be implementing the right toolsets to monitor and protect the network and its assets. Real-time visibility into data sets, networks and transport protocols, and endpoints will allow us to continually monitor and understand our systems and "normalize" behaviors in order to proactively address any anomalies.

Given the scope and importance of securing both Bexar Metro and the public's data, we are partnering with some of the best resources available in cyber security in the government space. We'll be doing security assessments that span multiple networks and looking at the connections to various service providers – an area previously always assumed as secure. We've deployed a new type of system-level protection that prevents any unauthorized process from running on our clients. We are leveraging and supporting local companies that have headquarters here in San Antonio, contributing to the local economy and supporting local employment opportunities beyond our doors. Bexar Metro Network is forging ahead with no signs of slowing down!





# Training And Education

As part of our continued efforts to meet local telecommunicator training needs, Bexar Metro staffed a full-time trainer in late 2017. Bexar Metro is dedicated to fund, develop and implement various training and educational programs. In 2018, 578 telecommunicators attended various types of training to support their high-demanding occupation and meet all state and federal requirements.

Here is an example of courses offered:

- ◆ Telecommunicator Spanish
- ◆ Basic Telecommunicator
- ◆ Active Shooter
- ◆ Stress Management
- ◆ 9-1-1 Liability

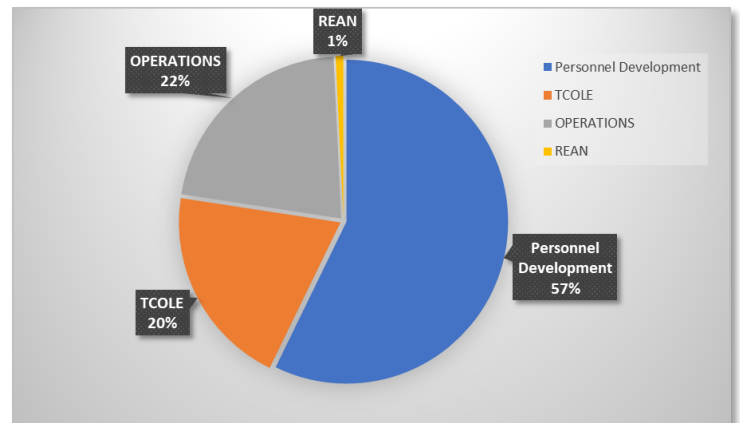
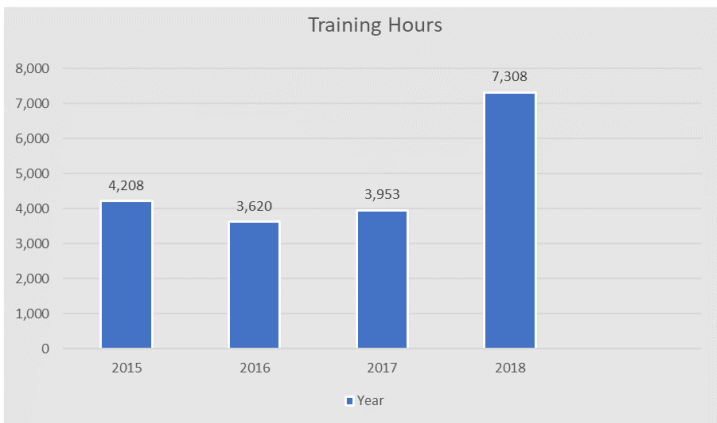
Additionally, Bexar Metro's Training and Education Program was able to provide state and federally mandated courses more often to accommodate the grueling schedules of the telecommunicators.

Here are a few of the mandated courses:

- ◆ TCIC/NCIC
- ◆ TLETS/NLETS
- ◆ Crisis Communications
- ◆ TDD/TTY

Bexar Metro staff also conducted in-house training on the following mission critical systems:

- ◆ Vesta 9-1-1
- ◆ Analytics
- ◆ Regional Emergency Alert Network (REAN)



# FACILITY OPERATIONS



Bexar Metro Facility Operations strives for excellence while staying under the radar. We have many tasks that fall under the Facilities umbrella, which include disaster planning and readiness for the facility and its tenants. These preparations helped the Quarry Run Regional Operations Center make it through its first winter.



Facility Operations participated in many tours this year; foremost, was the Commission on State Emergency Communications (CSEC). Other organizations that toured the facility include; Bexar County Sheriff Office (BCSO) Explorers; City of San Antonio Transportation Security Administration (TSA); City of Austin Communications Services Division and the Texas Department of Public Safety Communications and Operations Administrators, as well as several surrounding Emergency Communication Districts from south and west Texas..

The Facilities staff has grown with the addition of a Maintenance Specialist to help with the upkeep of the facility as demands grow each year. Projects completed by our staff include the oversight of renovations at the Bexar Metro Saddletree Court location, including an upgrade of the security and camera systems. The Quarry Run facility has undergone the overhaul of the chilled water pump valves, increased capacity of both the electrical and the cooling system in the data center, and added lightning protection to the exterior gates. Projects come and go but our focus and dedication is always to provide customer service to our member jurisdictions, our tenants, and our fellow Bexar Metro teammates in support of the Bexar Metro mission.





# BEXAR METRO

## 2018 BUDGET SUMMARY

More than 99 percent of the total funding for the Bexar Metro 9-1-1 Network (Bexar Metro or District) is generated by emergency service fees on telephone services, including traditional wireline, wireless, private switch and Voice over Internet Protocol (VoIP). These small monthly service fees, collected on behalf of the District by telephone service providers in Bexar, Comal, and Guadalupe counties, fund the planning, implementation, operations, and maintenance of one of the premier Enhanced 9-1-1 systems in the Nation.

The Bexar Metro annual budget is adopted by its Board of Directors each year after the governing bodies of each of the 40 member jurisdictions have had the opportunity to review, consider, and approve a draft version. Budget expenditures required for the 9-1-1 operation are divided into two primary sections; the Operations and Maintenance (O&M) expenditures, and the Capital expenditures. The O&M expenditures provide for the ongoing management of existing operations while the Capital expenditures, including funds transferred from the capital reserve fund, provide for current and future enhancements to District Operations. The District's Capital Reserve Fund is set aside for those enhancements.

Currently, the majority of the Bexar Metro Capital Reserve Fund is dedicated for the deployment of a Next Generation 9-1-1 system that will support the operations of all 21 PSAPs currently served by the District.

Bexar Metro has, from the start, adhered to a policy of sound fiscal planning and management and has never borrowed funds. Because of strong leadership, the District is in a strong fiscal position to meet its future obligations while continuing to enhance the services it provides to the citizens it serves.





**Bexar Metro 9-1-1 Network District  
Fiscal Year 2018 Budget Summary**

	<b>FY 2018 Budget</b>	<b>FY 2018 Actual</b>
<b>Revenue</b>		
9-1-1 Service Fee Revenue	\$ 13,517,400.00	\$ 13,237,218.00
Interest Income	\$ 34,600.00	\$ 200,855.50
Miscellaneous	<u>\$ 12,000.00</u>	<u>\$ 41,372.42</u>
Total Revenue	\$ 13,564,000.00	\$ 13,479,445.92
Planned Reserve Transfer	\$ 6,971,000.00	\$ 3,451,427.50
Previous Year Carry-Over	<u>\$ -</u>	<u>\$ -</u>
Total Funds Available	<u>\$ 20,535,000.00</u>	<u>\$ 16,930,874.00</u>
<b>Expenditures</b>		
Personnel Services	\$ 2,755,000.00	\$ 2,538,119.32
Operations	\$ 6,468,000.00	\$ 5,415,335.00
Facilities	\$ 1,520,000.00	\$ 1,209,234.03
Education and Training	\$ 142,000.00	\$ 119,097.37
Contingencies	<u>\$ 500,000.00</u>	<u>\$ 250,000.00</u>
Total O&M Expenses	\$ 11,385,000.00	\$ 9,531,785.72
Capital Expense	\$ 9,150,000.00	\$ 7,399,088.00
Capital Reserve	<u>\$ -</u>	<u>\$ -</u>
Total Capital Expense	\$ 9,150,000.00	\$ 7,399,088.00
Total Expenditures	\$ 20,535,000.00	\$ 16,930,873.72

***The Budget Summary utilizes a cash basis for accounting. The accompanying Audit Report differs slightly because it utilizes an accrual basis.***



SWORN STATEMENT

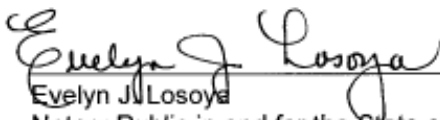
STATE OF TEXAS        )  
                                  )  
COUNTY OF BEXAR    )

Before me, the undersigned personally appeared and stated:

I, W.H. Buchholtz, Chief Executive Officer of the Bexar Metro 9-1-1 Network, do solemnly swear that the following Fiscal Year 2018 Budget Summary of revenues and expenditures is a true and correct report of the financial activities of the District for the fiscal year ending September 30, 2018.

  
\_\_\_\_\_  
W.H. Buchholtz, Chief Executive Officer

Sworn to and subscribed this 18 day of December 2018.

  
\_\_\_\_\_  
Evelyn J. Losoya  
Notary Public in and for the State of Texas  
My Commission Expires: September 6, 2019







**Bexar Metro 9-1-1 Network**  
**911 Saddletree Court, San Antonio, Texas 78231-1523**  
**210-408-3911 Telephone**