

**Emergency Services Communication
in
North Dakota
A Status Report
2010**

**Prepared by the
Emergency Services Communications Coordinating
Committee**

**Pursuant to:
NDCC 57-40.6-12**

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Purpose

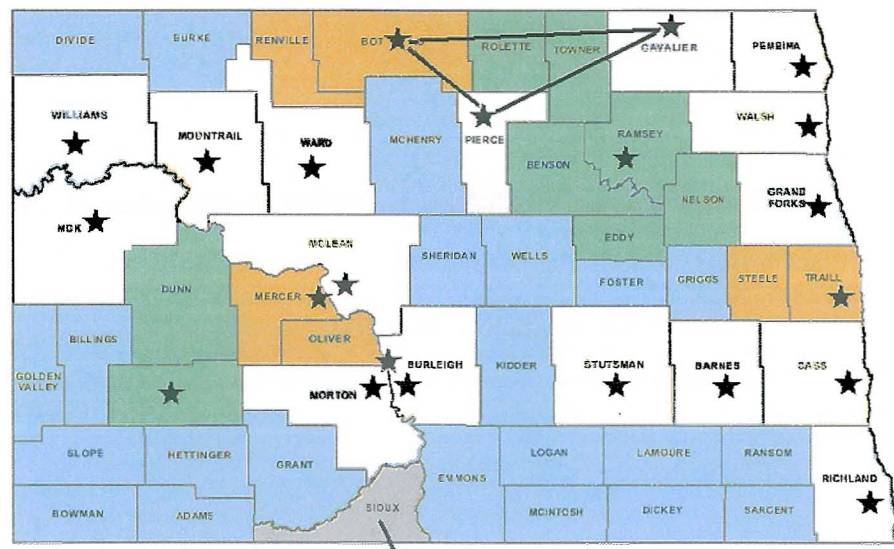
North Dakota Century Code (57-40.6-12) establishes an “*emergency services communications coordinating committee*” (ESC3) and creates a reporting requirement of the compiled “*income, expenditures, and status*” information from the individual jurisdictions of the State which levy an emergency services communication systems (ESCS) fee. Appendix A contains the statute and composition of the committee. This report constitutes the committee’s 2010 report, and has been prepared for submittal as requested by the Legislative Council to the Public Safety and Transportation Committee.

The four members of the ESC3 are full-time employees of the agencies they represent and receive no compensation for their Committee activities. The Committee has no budget, no appropriation, and no staff support. Activities of the committee are carried out by the voluntary dedication of the committee members’ time and the staff time provided by telecommunications companies and employees of State and local agencies with an interest in emergency communications.

Background

Emergency services communication is a complex and multi-faceted system of telecommunication devices, computers, and radios that connects every citizen of the State to the over 710 law enforcement, fire, and emergency medical responding agencies through 22 public safety answering points (PSAPs) in North Dakota (one less than in the previous report) and one in South Dakota. While from one perspective this network can be viewed as 23 separate systems, it is in reality a single system with 23 points of contact.

Emergency services communication has existed in this State since the development of telephone and radio; however it became more accessible, reliable, and consistent with the advent of E-911.



E-911 refers to the policies, procedures, and technologies that allow immediate connection to the appropriate PSAP throughout the State by dialing the digits 9-1-1; and the ultimate dispatch of the most appropriate and available emergency service. The integration of these policies, procedures, and technologies has been partially funded through a ESCS fee levied on telecommunication service in the State. The State's 53 counties and 2 cities have imposed such fees.

Rolette County was the final geographic area of the State to establish a fee. The County and the Bureau of Indian Affairs have negotiated a cooperative agreement and they have contracted with the (previously 5-county) Lake Region PSAP in Devils Lake.

It is also significant to note that recently a joint need to replace equipment has allowed the counties of Bottineau, Cavalier, Pierce, and Renville to consolidate what is termed "Customer Premise Equipment" or CPE. This CPE, housed in Langdon, serves three separate dispatch locations, but is technologically one PSAP. In addition to providing these counties a significant cost savings, it permits very simple switching of the call-answering function among the locations – allowing each site to provide immediate back-up to the others.

While this 4-county collaboration is the most recent, it is obvious with 55 governing bodies imposing fees but only 22 PSAPs in North Dakota, there is considerable sharing of services across the State. Notably, 22 of the counties are served by the PSAP operated by State Radio, six are jointly dispatched by the Lake Region Law Enforcement Center, and three other two-unit PSAPs exist. North Dakota also has possibly the only true multi-state PSAP – the Red River Regional Dispatch Center in Fargo serving the separate jurisdictions of Fargo, West Fargo, Cass County as well as Moorhead and Clay County, Minnesota. A complete listing of PSAPs and the approximate population served by each is attached to this report as Appendix B.

State	Number of of Primary PSAP's
North Dakota	22
South Dakota	45
Idaho	49
Wyoming	56
Montana	59
Minnesota	115
Iowa	122
Kansas	159

It is often of interest to compare North Dakota to neighboring states in the area of emergency services communications. The table contrasts the number of PSAPs operated in surrounding states. North Dakota has, by far, the fewest number of PSAPs of any State in the region, and actually serves 4,000 more people per PSAP than the regional average.

Consolidation of PSAPs is often cited as a means to reduce the costs of our emergency services communications system, and this topic is explored in a separate section of this report.

North Dakota law (NDCC 57-40.6) has, for many years, allowed city and county governing bodies to impose a “*fee that does not exceed one dollar per month per telephone access line and per wireless access line*” for the support of “*an emergency services communications system*”. In 2009, the Legislature allowed jurisdictions involved in “*an intrastate multi-county PSAP*” to raise their fee to a maximum of \$1.50 per access line per month. The statutory change requires that this higher threshold “sunsets” on June 30, 2010. Additionally, through home rule powers, cities and counties can impose such a fee within the limits of their home rule charters. Two cities have used their home rule authority for this purpose.

Of the governing bodies that have imposed a fee through the statutory provisions or their own home rule powers, all were levying one dollar on January 1, 2010. Since that time, the governing boards of five counties using State Radio as their PSAP have increased their fee to the new threshold and will be including a ballot measure in the 2010 General Election for their citizens to ratify or suspend the increase.

It is very important to note, as this report will show, Emergency Services Communications is much broader than simply E-911. While dialing 911 most often initiates the emergency response, the day-by-day, hour-by-hour communications between dispatchers and responders, the ongoing contact during an emergency, the location information, mapping software, faxes, and numerous other components make it possible for local emergency services to arrive and deliver services in the shortest time possible. This will become increasingly complex as our statewide system migrates to “Next Generation 911” (NG911) as termed by the federal government, which is also discussed later in this report.

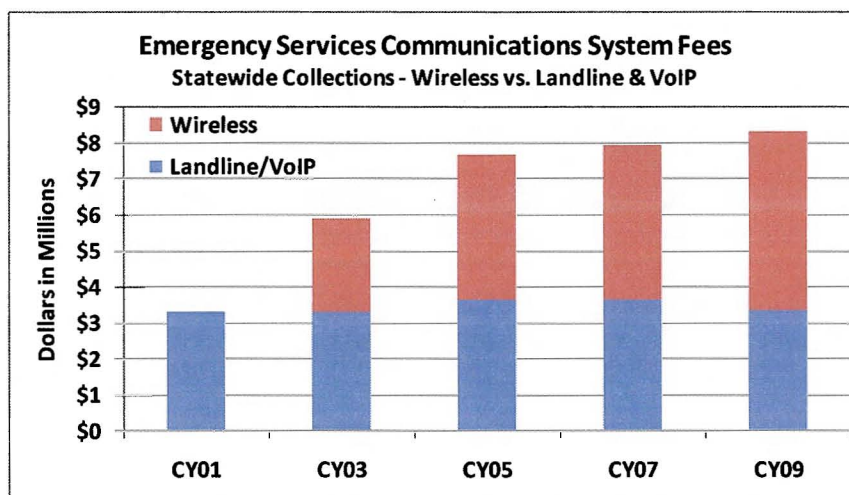
Methodology

To facilitate the statutorily required reporting and ultimately develop this report, each jurisdiction collecting the emergency services communications system (ESCS) fee was asked to complete a financial survey. Additionally, each PSAP was asked to complete an operational survey. Statewide data, collected for the development of the North Dakota NG911 Master Plan, has also been incorporated.

The first survey focused on the revenues and expenditures of the 55 entities that have imposed an ESCS fee. This was compiled in a manner that attempted to preclude counting revenue twice in situations where a county contracts with another entity for emergency communication services. Calendar year 2009 revenue and expenditure data was requested from all jurisdictions. The actual results from the entities are attached to this report as Appendix C (fiscal) and Appendix D (operational). The comments that were attached to the fiscal data (Appendix E) are important as a number of entities qualified their revenue data regarding grant awards, general fund deposits, and miscellaneous refunds that, in addition to fee revenue, were used to meet 2009 ESCS costs; as well as notes regarding unusual expenditures made in 2009 or anticipated for the future.

Status - Financial

The overall financial data indicates several significant changes and the continuation of several trends. The first-ever statewide decline in landline revenue reported two years ago has accelerated, even with the addition of revenue from at least 16 Voice over Internet Protocol (VoIP) providers. For CY2009, the “landline/VoIP” revenue has dropped by \$270,000 statewide and now represents only 41% of the total. Wireless service (including at least five “pre-paid” carriers) has increased by almost \$700,000 and now represents 59% of the total.



Somewhat surprisingly, the percentage of the fee revenue remitted to the larger communities has dropped slightly after a steady increase for several years. In 2007, 56% of the fee revenue statewide was collected in the four largest counties, while in 2009 their share was only 54% of the statewide total.

When analyzing the revenues and expenditures associated with emergency services communications, consistency of the data has increased significantly. 2007 Legislation directed the development of expenditure guidelines for costs considered appropriate for ESCS fee revenue support. While the guidelines were not official until January 1, 2008, they were under discussion in draft for several months and facilitated a much clearer understanding of the various cost categories used in the CY07 survey and this continued through the CY09 survey used to develop this report.

While the largest portion of ESCS expenditures are paid from the special fund created by the statutory and home rule fees, many jurisdiction reports indicate that there are significant system costs borne by other funds, but that these costs are often not reflected in the special fund transactions. Salaries and (particularly) benefits for dispatchers are often funded through local city or county property tax sources.

Appendix C contains the actual data gathered from the individual jurisdictional reports; however the following table and charts provide a statewide picture of the finances. The reports have been grouped by “State Radio” and “Non-State Radio” dispatched counties, and some grouping of expenditure categories has been done to make the charts more meaningful.

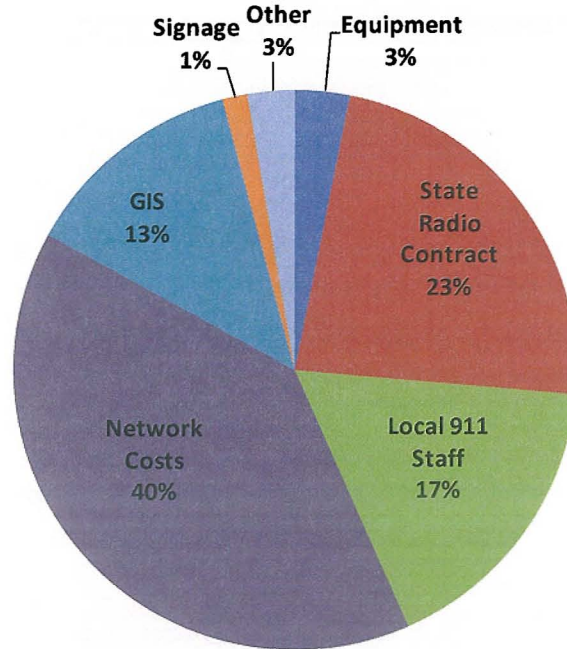
	State Radio Dispatched Jurisdictions	Non-State Radio Dispatched Jurisdictions
2009 Landline Revenue	\$ 419,278	\$ 2,937,687
2009 Wireless Revenue	\$ 449,508	\$ 4,526,719
Other Funds/Previous Reserves	\$ 64,735	\$ 6,722,275
2009 ESCS Expenditures	\$ 956,236	\$15,135,553

ESCS – Emergency Services Communications Systems (NDCC 57-40.6)

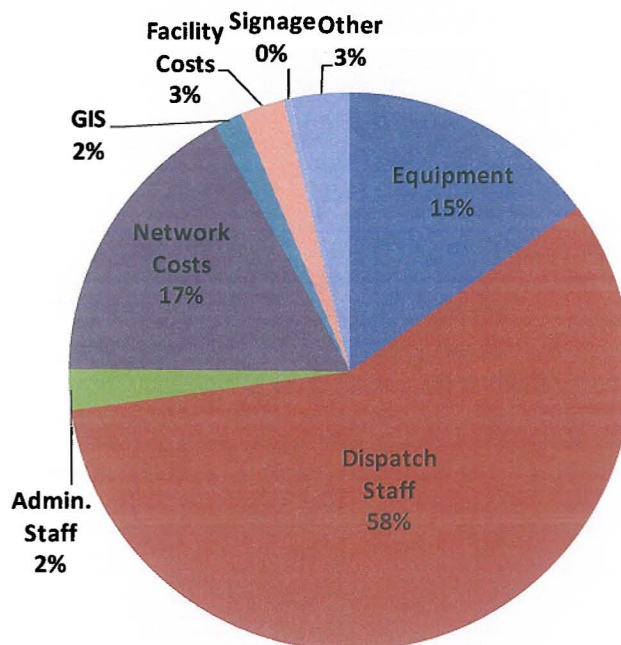
Many of the jurisdictions also included notes (Appendix E) regarding major purchases they are anticipating. As an example, Grand Forks indicated they are planning a major PSAP relocation and upgrade, and Bismarck/Burleigh is planning for the implementation of a mobile data and automated vehicle location system. Several of the State Radio dispatched counties spoke of planned expenditures for maintaining Geographical Information System (GIS) data and all counties are looking to the network upgrade necessary for Next Generation 911 (discussed below). The ESC3 concludes that the data documents the prudent planning for strategic expenditures that was envisioned by the Legislature when this special revenue source was created.

The compiled CY2009 expenditures are illustrated below in the two pie charts. To facilitate comparison between the two types of jurisdictions, the category "Dispatch" includes direct salaries and benefits paid to staff as well as payments made to other jurisdictions for contract dispatch. The "Equipment" category includes both the purchase of towers, dispatch consoles, computers, base stations, etc. as well as the ongoing maintenance of this equipment.

State Radio Dispatched Counties



Non-State Radio Dispatched Counties



The “Network Costs” category includes payments for voice and data trunks to local phone companies as well as the portion of the wireless project fees that are paid for selective routing of wireless calls and database services on behalf of the wireless carriers.

The analysis of the data reported to the Emergency Services Communications Coordinating Committee indicates that all of the local jurisdictions have expended their ESCS fee revenue in a manner consistent with State Statute and the Expenditure Guidelines established January 1, 2008 by the ESC3.

Status – Operational

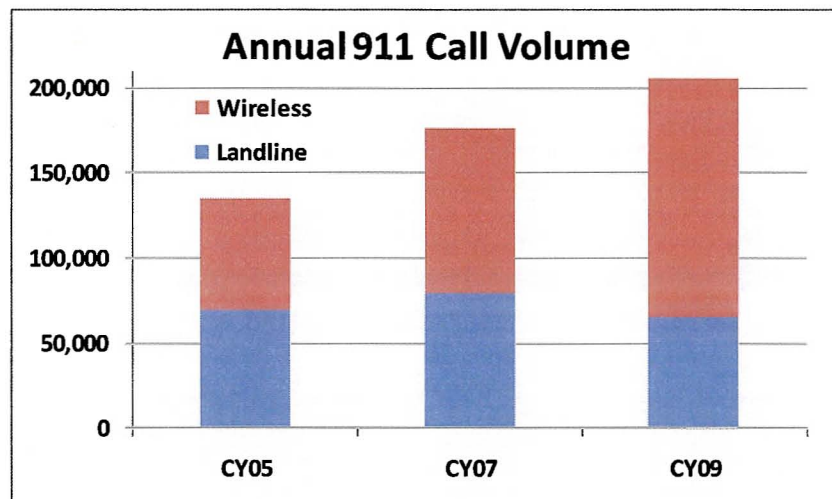
The financial information is better understood when the emergency communication activities and responsibilities supported by this revenue are profiled. The table below provides a picture of what the PSAP Surveys have indicated. It is significant to realize that in a single year the public safety answering points of North Dakota manage over 200,000 emergency calls, (a 16% increase over 2007) – two-thirds of which are now coming from cellular phones. This indicates a dramatic shift from landline to wireless calls in the last two years.

	Statewide	Largest	Smallest
	Total	PSAP	PSAP
Dedicated 911 Trunks	90	10	2
Administrative Phone Lines	173	10	4
911 Calls per Month	17,069	5,631	73
Admin. Calls per Month	82,964	20,294	1,975
Total of all Calls per Month	100,033	25,925	2,048
Total 911 Calls per Year	204,830	67,573	800
Wireless as % of 911 Calls	68%	80%	53%
Active Dispatch Stations	72	8	2
Dispatchers – Full-Time	275	26	7
Dispatchers – Part-Time	32	0	0
LE Agencies Dispatched	113	9	3
Ambulances Dispatched	142	6	1
Quick Response EMS Units	83	14	1
Fire Agencies Dispatched	<u>373</u>	<u>31</u>	<u>10</u>
Total Agencies Dispatched	711	60	15

For individual jurisdiction data see Appendix D

The busiest PSAP averages a 911 call every 7 minutes – 24 hours a day, 7 days a week, 52 weeks a year. Statewide, these 22 locations handle an additional 82,964 administrative calls per month, or a combined total of over 1.2 million calls per year.

The rapid and sustained growth in 9-1-1 calls (13% per year) is rather startling when contrasted with the rather stable population of the State. As indicated by the chart, this growth is all due to wireless calls – in fact landline call volume has been decreasing while total calls have been increasing. Clearly, much of this results from the “multiple calls” for the same emergency that become common with the proliferation of cellular phones. Each of these “multiple calls” however must be treated as a separate emergency until determined otherwise, and PSAP staffing has increased in some locations due to call volume growth.



275 full-time and 32 part-time staff persons are now employed by the State's PSAPS to handle this call volume on the front line as call-takers and dispatchers. Of these, from 37 to 58 are on duty at any given time. Additionally, these front-line individuals are supported by 80 full-time and 15 part-time dispatch supervisors, computer/radio technicians, GIS specialists, trainers, and administrative staff. At the time of the survey, the 23 PSAPs had a collective vacancy rate of 1.9%.

These PSAPs coordinate and manage the activities of over 710 emergency responding agencies. It is interesting that some of the PSAP's serving the smallest population and the most rural areas have the largest number of agencies to dispatch. On the average, each PSAP must manage 27 responding agencies, and sometimes several of them are being dispatched simultaneously.

Statewide, on an annual basis, over 350,000 emergency response services of all types (fire, EMS, law enforcement) are dispatched by the 22 North Dakota public safety answering points. These same PSAPs also respond to FBI (NCIC/NLETS) requests, log and confirm warrants, and most also activate emergency sirens, manage emergency cable interrupts, dispatch public works agencies during emergencies, and perform other emergency communications functions. To dispatch these services, the individual PSAP's manage from 4 to 44 local radio frequencies, in addition to those of State Radio.

This information, detailed to the PSAP level, is contained in the tables making up Appendix D.

Issue 1 – Wireless 911

The single most significant change in emergency services communications since its inception has been the development of cellular technology and its rapid adoption by the public. The ability to make emergency calls from virtually anywhere at anytime has dramatically improved the possibility of rapidly dispatching emergency services.

This development, however, has posed challenges for local jurisdictions as well as the cellular companies themselves. While the federal government (FCC) mandated that cellular companies implement “wireless 911 services”, they made the requirement contingent upon local and state authorities requesting the services, being capable of receiving the data, and the existence of a “cost-recovery” mechanism.

The 2001 Legislature responded by enacting legislation allowing governing bodies that had imposed a 911 fee on landline communication service to extend that fee to wireless (cellular) service. Every 911 jurisdiction did this in 2001.

The 911 authorities, through a joint powers agreement, designated a project coordinator and in 2002 made a statewide request for “wireless 911 services” from the eight cellular service providers operating (at that time) in the State. Initially dedicating 50-cents per wireless device per month toward networking and “cost-recovery”, that amount was lowered to 38-cents after a statewide, 5-year, \$7 million contract was negotiated and the initial “non-recurring” costs were paid.

As of May 2005, every North Dakota PSAP had deployed the necessary hardware and/or software upgrades in order to receive the wireless location (latitude/longitude) information, and every cellular company had implemented “wireless 911 services” statewide. North Dakota became the sixth (6th) state in the nation to achieve 100% statewide implementation.

After providing partial “cost recovery” (\$5.2 Million) for the benefit of cellular providers over six years, the joint powers entity restructured its agreement and limited its payments to the amount necessary to maintain the “network costs” directly associated with wireless 911 calls only. The fifty-four 911 jurisdictions networked to North Dakota PSAPs now dedicate 20% (\$0.19) of the approximately \$0.95 they collect for every wireless device to the network costs. Due to the complexity of the wireless networking, this amount remains somewhat higher than the \$0.10 per landline device most jurisdictions pay directly to the phone companies for comparable landline network services.

2009 Wireless Project Finances		
\$0.38/Device	\$ 2,099,356	
Interest	\$ 9,638	
Total Revenues		\$ 2,108,994
Network Costs	\$ 841,098	
Cost Recovery	\$ 580,000	
NG911 Consultant	\$ 67,895	
Admin/Legal/Refunds	\$ 273,734	
Total Expenditures		\$ 1,762,727
Revenue over Expenditures		\$ 346,266

Calendar year 2009 wireless project costs are illustrated in the table. These costs reflect the previous contract payment schedule when payment for both “cost recovery” and network services were included. The contract reductions

eliminating “cost recovery” took effect April 1, 2010.

The original contract costs were based on projections that eight cell providers would be routing 190,000 cell phones through 350 cell sites across the state. Since project initiation that number has grown to 425,000 cell devices and 650 cell sites – although the number of providers has shrunk to seven. These seven in order of the size of their cell site footprint in North Dakota are: Verizon, Alltel, Sprint/Nextel, SRT, T-Mobile, Sagebrush, and AT&T Mobility.

The joint powers entity consisting of 52 county and 2 city jurisdictions contracted with the North Dakota Association of Counties for program and fiscal management of the wireless project. All of the funds are treated in the same manner as similar

special funds received by local government – they are maintained in a separate account and expended only pursuant to the ESC3 Expenditure Guidelines and at the direction of the governing body of the joint powers entity.

As this project essentially now pays only for the network and management to deliver cell calls to the PSAPs, those payments (as well as the direct landline network payments) will eventually be replaced by the costs associated with a more comprehensive Next Generation 911 network - discussed below.

RECOMMENDATION: The newly negotiated contract for Wireless 911 has limited local jurisdiction funding responsibility to routing and transport charges and therefore has significantly reduced local costs. The ESC3 should support the efforts of the governing body of the Wireless 911 project to ensure there is no loss of service from cellular companies as a result of this change.

Issue 2– Pre-paid Wireless

Citing challenges to properly collecting and remitting the ESCS fee, at least one telecommunication company interpreted North Dakota law to exempt “pre-paid wireless” phone service from the ESCS fee. This created a situation of unequal service costs within the communication industry, and impacted local government revenues as landlines were removed in favor of wireless service.

The 2005 performance audit of the ESCS fees identified this situation as a problem and recommended that legislation be considered to clearly assess the fee on this particular type of wireless service – leveling the playing field for all communication providers. The 2007 Legislature made this change and also provided pre-paid wireless companies two options for calculating and remitting these fees – the local device fee per month or a 2% fee calculated on the gross receipts of this service.

Since that time, local jurisdictions have seen steady growth in the remittance by a number of nationally recognized pre-paid wireless providers. At least five of these providers are regularly remitting the fees and the payments represent approximately 3% of the total wireless collections. As this is significantly less than what is believed to be the national average of pre-paid wireless use (18%) and as one of the largest pre-paid wireless providers in the country stopped remitting fees, this remains a problem.

North Dakota is not alone in this problem, as this single company refuses to pay this fee in most, if not all, States. Even where state agencies are the collection point with statutory audit authority over the companies, compliance has not been achieved.

RECOMMENDATION: Joint efforts with other states to achieve compliance should be supported by the ESC3 – working through organizations such as the National Emergency Number Association (NENA) and the National Association of State 911 Administrators (NASNA), as well as continued communication with the FCC.

Issue 3 – VoIP

Somewhat like wireless service ten years ago, Voice over Internet Protocol or VoIP is a growing new technology that poses challenges for local 911 jurisdictions. This technology allows individuals to use almost any existing personal computer with an Internet connection to place voice calls to anywhere in the world.

The pricing of this service has made it quite attractive for some businesses and it is also becoming increasingly popular with individuals as well – although a 2007 study indicated that VoIP worldwide had only 1% of the telecommunications market, and adoption rates are much higher in Asia than in the U.S.

Since this service can be activated anywhere and later moved almost anywhere else that the customer desires, a PSAP can find 911 calls from VoIP subscribers much more difficult to handle – if they are received at all.

The FCC has required that VoIP service providers (VSPs) to pay applicable local 911 fees and to immediately route all 911 calls to the proper PSAP – based on the address that each consumer keys into their equipment. While this ensures the routing of a 911 call, it only ensures correct routing if the user is conscientious in maintaining an accurate location, as they move their computer.

In North Dakota, the governing board of the joint powers agreement for the wireless project directed their wireless 911 Project Manager to facilitate VoIP 911 implementation by the VSPs as part of the Wireless 911 Project. Since that time, numerous VSPs and their database support companies have worked with the 911 Project Manager to ensure proper routing of VoIP 911 calls and approximately 1% of total landline 911 revenues now come from VoIP companies.

RECOMMENDATION: As there are now at least 16 VoIP companies operating in North Dakota in compliance with the FCC ruling and remitting 911 fees based on the customer-reported location, current efforts to identify and contact VoIP providers operating in North Dakota should continue.

Issue 4 – Next Generation 911

Nationwide efforts to overhaul the current E-911 system to meet our country's advancing telecommunication needs have been termed "Next Generation 911" or "NG911". From the federal level, the US Department of Transportation has been given a lead role, and they are working cooperatively with the FCC and the National Emergency Number Association (NENA) to assist in a nationwide transition.

It is generally recognized that this transition will require the addition of a broadband Internet Protocol (IP) based network that will gradually replace the existing voice-only network. PSAP equipment replacement will ultimately be necessary, very likely with IP-based equipment that will reside on this new broadband network and serve multiple dispatch locations.

With funding and direction from the USDOT, NENA contracted with the consulting firm L.R. Kimball to assist in plan design. NENA is also coordinating multiple committees made up of public safety professionals, telecommunication company representatives, and network specialists to develop technical and policy standards that states and local jurisdictions can ultimately use for their own implementation.

At the State level, North Dakota jurisdictions have leveraged their joint powers agreement to address this issue cooperatively. The governing board authorized a consulting contract to begin North Dakota's system assessment and initial network design – providing as an end product a North Dakota NG911 Master Plan. The JPA governing board chose the same consulting firm that was under contract with NENA, and was doing state plans for Minnesota and Montana – L.R. Kimball. The Master Plan was completed in December 2008 and the results provide the foundation for statewide deployment of NG911.

At the federal level, Congress has provided a modest amount of funding to assist in this NG911 effort. In 2004, they enacted the ENHANCE 911 Act, which authorized \$250 Million per year for five years (\$1.25 Billion). Unfortunately, four years of no appropriation was followed, in its final year of authorization, by only \$41.3 million made available nationwide – with an initial allocation of \$500,000 for North Dakota.

The State of North Dakota, through the ESC3, used its (Kimball prepared) Master Plan as the foundation for a ENHANCE 911 Act grant application and was successful in obtaining not only the \$500,000 allocation, but an additional \$413,000 of funding that was not awarded to states that were less prepared for this opportunity.

As the ESC3 has no budget, appropriation or financial staff, the Information Technology Department agreed to act as grant recipient and the Budget Section authorized their acceptance of the \$913,000 grant in December of 2009.

With the exception of the 10% allowed for administration, the grant funds must be used exclusively for hardware, software and training related to implementing NG911. Additionally, the grantee must be able to document that all of the implementation funds are dedicated to the direct benefit of the actual public safety answering points, either individually or collectively. Due to this local benefit requirement, ITD chose to contract with the North Dakota Association Counties to fulfill the grant management reporting responsibilities – documenting local benefit, federal expenditures, the required match, and the program progress.

The federal grant period is three years, and all funds must be expended by September 30, 2012. As the ESC3 is still in the data gathering phase of its efforts, implementation funds have not yet been expended – although the documentation of allowable matching funds has begun.

The ESC3 has conducted five meetings since the Budget Section approval of the grant and has dedicated a significant portion of their meeting time to NG911 information gathering. Presentations have been made by a number of individuals and groups that have knowledge or an interest in North Dakota's NG911 system.

The first was the NG911 Program Manager for the State of Minnesota, which recently awarded a contract for implementation in three phases; IP Network build out, piloting in selected PSAPs, and Statewide implementation. Their long term cost estimate (after implementation) is \$14 million per year. Minnesota's efforts will be important to North Dakota, particularly along the border where communication networks and resources are shared.

The network staff of North Dakota's Information Technology Department provided a presentation on their implementation of improvements to the State's broadband IP network and its possible applicability to NG911.

The NG911 Product Manager from Qwest, who has been involved in the State of Washington's ongoing NG911 implementation, presented to the ESC3 in May of this year. She explained several implementation options that their company offers – suggesting that a joint effort with the State of South Dakota may also be possible.

In early July, a North Dakota firm, Bullberry Systems, will be jointly presenting with Red Sky Telecommunications regarding their current work in North Dakota and other States and what they could offer to a North Dakota NG911 implementation.

The ESC3 is also collecting Requests for Proposals (RFP) and Requests for Information (RFI) from other States as resource materials, although the fact that NENA has not yet completed all of the technical standards for a true NG911 system makes responding to such requests quite difficult for network providers.

As we move from E-911 to NG911, mapping becomes much more critical. The new devices sending text, video, crash data, etc. to the PSAPs will use latitude and longitude as locatable addresses that will require very accurate mapping and GIS processes. Both traditional addressing and geocoding will require much greater accuracy, and the nature of NG911 will demand seamless consistency from jurisdiction to jurisdiction.

This was largely the motivation for the seamless statewide base map project undertaken by our Department of Emergency Services and the Department of Transportation. Aerial photography (the first step in this process) was completed for one county (McHenry) as a pilot; and post-processing is now finished, providing proof of concept for the project. The photography and processing for the rest of the state is now proceeding.

The Department of Emergency Services was also appropriated \$100,000 for NG911 planning, and proposes to target this funding to answer state-specific technical questions that may not be answered by information from other states and national standards.

As stated in North Dakota's NG911 Master Plan, a key first step in NG911 implementation is to address the "governance" of the implementation effort. As demonstrated by the Wireless/VoIP project, a coordinated, statewide project is necessary to ensure a smooth transition to a robust yet cost-effective infrastructure that can serve the emergency needs of North Dakota's citizens.

RECOMMENDATION: The ESC3 will continue its thorough evaluation of NG911 technologies and the implementations in other States – acting as a focal point for such information. Monitoring of the ongoing development of national standards will also continue. This information gathering will provide the foundation for the development of a NG911 implementation strategy.

Issue 5 – Operating Standards

As indicated in Appendix A, NDCC 57-40.6-12 requires that the ESC3 “*recommend to the legislative council changes to the operating standards for emergency services communications, including training or certification standards for dispatchers.*”

The ESC3 has recently completed a rather extensive review and series of public hearings on proposed changes to the “standards” as currently spelled out in NDCC 57-40.6-10. The current statutory standards were enacted as state law in 2001 with the repeal of the Governor’s Committee that had been tasked with maintaining them. They have been largely unchanged since that time.

The ESC3 examined operating standards recently enacted in other States as either law or rule, and developed an extensive draft proposal to restructure and expand North Dakota’s standards. The draft was distributed to state and local officials and telecommunication company representatives for comment. A written comment period was allowed and a public hearing was held, resulting in a second draft. This process was repeated and following the second public hearing, a final draft was prepared and circulated to all interested parties.

The ESC3 adopted the third draft for formal recommendation to the interim interim committees charged with studying this topic. This document is attached as Appendix F of this report.

RECOMMENDATION: The ESC3 urges the appropriate interim committee to review and consider recommending the standard changes contained in Appendix F to the 62nd Legislative Assembly.

Issue 6 – Database Update Fees

State law permits telecommunications companies to retain, from the emergency services fee, sufficient revenue to cover their costs of administering its collection – up to 5%. Most companies report that they retain from 3% to 5% for this function.

This “collection fee” however is not the only fee charged by some phone companies for the support of this system. As the delivery of caller location information for traditional landline calls are dependent upon accurate location information, every “connection” “disconnection” and “move” of landline service must be reported to the jurisdiction or their database provider.

Some telephone companies provide this information at no charge; some charge a monthly fee regardless of the number of changes; while some charge up to \$4 per change. At least one jurisdiction reports paying more money to the landline phone companies for service change records than they pay to State Radio for dispatch services. This can be a rather expensive service for a small jurisdiction with few phone customers – a service that would appear to have great potential for automation and cost reduction.

RECOMMENDATION: The ESC3 should request representatives of the landline telecommunications companies to attend an ESC3 meeting and discuss a voluntary standard for these charges rather than seek a statutory limitation.

Issue 7 – PSAP Consolidation

Since passage of the legislation assigning the development of our State’s emergency services communications system to county and city government in 1985, there has been a recurring discussion among state and local officials about the proper and most efficient number of PSAPs. This discussion resulted in the original development of only 26 PSAPs (in contrast to the 45 in South Dakota and 115 in Minnesota) and the further reduction to 22 over the last ten years, largely through the expansion of the State Radio and Lake Region PSAPs and through the development of the multi-state Red River Regional Dispatch Center.

Additionally, as noted above, the counties of Bottineau, Cavalier, Pierce and Renville have essentially created a “virtual PSAP” by consolidating their Customer Premise Equipment (CPE) and running remote dispatch terminals in three locations. From a network standpoint, we now have only 20 PSAPs in operation. It is clear that as we move further into the implementation of “Next Generation 911”, discussed below, there will be additional opportunities to consolidate equipment – reducing jurisdictional costs in this area.

The further reduction in the number of “dispatch locations”, however, is a separate issue – an issue that is technologically tied to radio traffic and safety concerns rather than the technology of the telecommunications industry. All “9-1-1 calls” *could* be routed to one location, even with today’s technology. That one location however could not possibly have direct radio communication with the more than 710 fire departments, law enforcement agencies, and EMS units. The response agencies operate on over 200 local emergency radio frequencies, in addition to those of State Radio. Most of these frequencies are operated in a very limited geographical range (single cities, portions of counties) and could not be accessed from a large distance with today’s technology without a very, very large investment.

The limited number of “statewide frequencies” managed by State Radio does not provide the capacity at this time to safely dispatch the vast number of agencies involved in emergency response.

Even consolidation of PSAPs closely located can be challenging. The most recent consolidation of the West Fargo PSAP into the Red River Center in Fargo involved almost a year of frequency planning and testing, policy unification, and training. Such a change cannot be undertaken without a detailed migration plan implemented with adequate time – or public safety will suffer.

Further developments like the 4-county sharing of CPE will be the most immediate “consolidation efforts” that can be expected to take place. This will also allow jurisdictions to better test the ability of one PSAP to “back up” another on a routine basis – allowing for experimentation with further consolidation in an environment that doesn’t jeopardize safety.

RECOMMENDATION: The ESC3 should continue to encourage the local consideration of equipment sharing and make this a priority in Next Generation 911 Planning.

Issue 8 – ESCS Funding

As discussed in the financial analysis above, the \$1 device fee on telecommunication service, generated about \$8.2 million of the \$16.2 million necessary (in FY09) to operate our State’s Emergency Services Communications System. This fee mechanism is used at some level in every state in the country except California – and is reported to be largely insufficient to support all of the costs of emergency communications in the other states as well. North Dakota however is one of a relatively few States that have not experienced the wholesale diversion of the fee revenue to unrelated governmental costs – this is more common in “central-collection states” where Legislatures have found it necessary to fund other priorities.

The Legislature did permit a fee increase (up to \$1.50), although its continuation is contingent on the outcome of an election – and the increase “sunsets” in two years. The increase is, also, only permitted for jurisdictions “*within an intrastate multicounty public safety answering point*”.

There is much discussion and debate nationwide about the appropriateness of this fee mechanism and different proposals have emerged but have not been implemented as a replacement for the “per device per month fee” – and only rarely as an augmentation. At the federal level there have been proposals to include telecommunication taxes and fees into the debate over “streamlining” sales taxes. One proposal would require the

statewide, centralized collection of such fees, if a State desired to join in multi-state efforts to collect taxes on mail-order and Internet sales. As of the date of this report, the inclusion of telecommunications taxes and fees does not appear likely.

At the State level, in addition to the questions of sufficient revenue to meet ESCS costs and the streamline sales tax compliance, several other issues have been raised about the current fee.

The first issue is the avoidance of the fee by several large prepaid wireless providers. As fees collected by local jurisdictions from prepaid providers continue to grow, it appears that this problem is confined to a single company. The sampling of several counties suggests that fees associated with prepaid service are collected from Jitterbug/ GreatCall, Boost Mobile, Virgin Mobile, Sienna, as well as quite possibly Alltel and Verizon Prepaid. Anecdotal data suggests that prepaid service is about 3% of our State's wireless collections, while nationwide prepaid is estimated to represent about 18% of users.

While centralized collection of this fee (or a gross receipts tax alternative) has been suggested as a possible solution to leverage the State's greater ability to force compliance, other states with state-level collection have found that costly legal proceedings have been largely unsuccessful. This company however is listed by the State Tax Department as a payor of the State's "gross receipts tax" – suggesting that compliance with the "alternative tax" authorized by 57-40.6-03 may be possible.

The second issue is the difficulty in remitting the fee to "correct" jurisdiction. Federal and state law requires all taxes and fees on telecommunications services to be paid to the taxing jurisdiction associated with the customers "place of primary use" (PPU). With mobile devices including cell phones and VoIP this becomes largely an issue of customer reporting. (Note: at least 16 VoIP providers are now remitting) If a customer doesn't specify a different PPU, fees and taxes are generally remitted to the billing address. It is likely true that a certain percentage of phones activated within the State are not associated with the correct PPU and it is possibly more likely that multi-state and multi-national firms with a presence in North Dakota have phones where the PPU is associated with corporate offices outside of North Dakota.

It has been suggested that the proposal to centrally collect an "enhanced" gross receipts tax in place of the \$1 device fee would solve the "PPU problem", but that may not be true. If an out-of-

state PPU is associated with a phone, the gross receipts tax charged to that phone service would still not reach North Dakota; and the problems with coming up with a distribution formula for centrally collected fees (taxes) would either fix the current distribution in law, (making any “in-state” PPU errors permanent) or ignore PPU entirely – greatly shifting revenue.

It is also significant to note that there is no record of a citizen vote regarding a local ESCS fee ever being defeated in North Dakota. In fact, generally the results are overwhelmingly positive. Four such votes were on the June 2010 ballot – all of which passed with very large margins.

June 2010 – Election Results – ESCS Fee

Griggs Co.	Increase fee to \$1.50/device	Yes – 76.5%
Divide Co.	Continue \$1/device fee	Yes – 88.0%
McKenzie Co.	Continue \$1/device fee	Yes – 86.2%
Stutsman Co.	Continue \$1 device fee	Yes – 91.0%

RECOMMENDATION: The ESC3 suggests that the “sunset” of the \$1.50/device maximum be removed and this threshold be made available to all jurisdictions; however it should be structured to require a vote prior to its effective date in a particular jurisdiction. It is further suggested that the statutory “re-vote” requirement every 12 years when no change in fee has been suggested; be replaced by a provision allowing the governing body or the voters themselves to put it back on the ballot for an increase, decrease or elimination.

APPENDIX A

Authorizing Statute

The following section of North Dakota Century Code was enacted by the 54th Legislative Assembly, and took effect August 1, 2001, with changes in 2005, 2007 and 2009.

57-40.6-12. Emergency services communications coordinating committee -- Membership -- Duties.

1. The governing body of a city or county, which adopted a fee on assessed communications services under this chapter, shall make an annual report of the income, expenditures, and status of its emergency services communication system. The annual report must be submitted to the emergency services communications coordinating committee. The committee is composed of four members, one appointed by the North Dakota 911 association, one appointed by the North Dakota association of counties, one appointed by the chief information officer of the state, and one appointed by the adjutant general to represent the division of state radio.
2. The committee shall:
 - a. Recommend to the legislative management changes to the operating standards for emergency services communications, including training or certification standards for dispatchers;
 - b. Develop guidelines regarding the allowable uses of the fee revenue collected under this chapter;
 - c. Request, receive, and compile reports from each governing body on the use of the proceeds of the fee imposed under this chapter, analyze the reports with respect to the guidelines, file its report with the legislative council by November first of each even-numbered year regarding the use of the fee revenue, and recommend to the legislative assembly the appropriate maximum fee allowed by section 57-40.6-02;
 - d. Periodically evaluate chapter 57-40.6 and recommend changes to the legislative management; and
 - e. Serve as the governmental body to coordinate plans for implementing emergency 911 services and internet protocol enabled emergency applications for 911.
3. The committee may initiate and administer statewide agreements among the governing bodies of the local governmental units with jurisdiction over an emergency 911 telephone system to coordinate the procurement of equipment and services, fund the research, administration, and activities of the committee, and contract for the necessary staff support for committee activities.

Committee Composition

Jerry Bergquist, Chairman – Stutsman County 911 Coordinator
Appointed by the North Dakota 911 Association

Mike Lynk, Vice Chairman – Director of State Radio
Appointed by the Adjutant General to represent the State Radio Division

Terry Traynor, Secretary – NDACo Assistant Director
Appointed by the North Dakota Association of Counties

Mike Ressler – Deputy CIO & ITD Director
Appointed by the Chief Information Officer of the State

APPENDIX B

Public Safety Answering Points in North Dakota

<u>PSAP Location</u>	<u>Counties Served</u>	<u>Service Area Notes *</u>	<u>Census Estimate*</u>
Fargo	Cass, Clay MN	Multi-State PSAP (Population Served is Total)	195,685
Bismarck	Burleigh	Includes portion of McLean Co. (Wilton Area)	78,689
Grand Forks	Grand Forks		66,585
State Radio Bismarck	Adams, Billings, Bowman, Burke, Dickey, Divide, Emmons, Foster, Golden Valley, Grant, Griggs, Hettinger, Kidder, LaMoure, Logan, McHenry, McIntosh, Ransom, Sargent, Sheridan, Slope, & Wells		64,484
Minot	Ward		55,986
Devils Lake	Ramsey, Eddy, Towner, Benson, Nelson & Rolette		37,398
Mandan	Morton	Includes fringe areas of Stark, Dunn, Mercer, Oliver & Grant Counties	26,255
Dickinson	Stark & Dunn		25,893
Jamestown	Stutsman		20,394
Williams	Williams		19,864
Bottineau	Bottineau Renville	Single PSAP Controller - Distributed Dispatching in Three locations	8,583
Langdon	Cavalier		3,841
Rugby	Pierce		4,091
Wahpeton	Richland	Portions of Sargent & Ransom Co. ND and Wilken & Roberts Co. SD	16,334
Grafton	Walsh		10,880
Valley City	Barnes		10,682
Washburn	McLean		8,604
Stanton	Mercer & Oliver		9,549
Hillsboro	Traill & Steele		9,615
Cavalier	Pembina		7,419
Stanley	Mountrail		6,511
Watford City	McKenzie		5,674
Mobridge, SD	Sioux	North Central South Dakota 911 Center	27,640

* Census figures do not include small portions of adjoining counties

APPENDIX C

Emergency Services Communications System (9-1-1) Revenues & Expenditures Based on CY2009 Survey Compiled by the Emergency Services Communications Coordinating Committee

Ref. No. Notes		Fund Balance 1/1/2009	Landline/VoIP Revenue	Wireless Revenue	Property Tax Reserves/Other	CY2009 Expenditures	Fund Balance 12/31/2009
State Radio Dispatched Counties							
1	Adams county	69,039	14,952	17,646	169	27,170	74,636
2	Billings County	42,510	5,725	5,673	0	16,269	37,639
3	Bowman County	37,113	20,102	22,786	2,326	52,632	29,694
4	Burke County	85,965	8,335	11,876	11,607	60,685	57,097
5	Dickey County	110,236	31,320	35,086	5,928	83,439	99,130
6	Divide County	50,961	15,985	12,367	0	35,310	44,002
7	Emmons County	18,584	23,122	22,384	8,620	51,317	21,394
8	Foster County	215,692	20,126	26,435	0	55,935	206,319
9	Golden Valley County	46,582	11,435	10,808	565	25,857	43,533
10	Grant County	50,911	15,656	13,251	12,409	31,509	60,718
11	Griggs County	46,914	17,001	17,284	0	39,617	41,582
12	Hettinger County	24,038	14,911	11,467	2	28,099	22,319
13	Kidder County	20,339	15,288	17,143	2,788	28,156	27,402
14	LaMoure county	42,373	25,292	30,335	2,310	40,104	60,205
15	Logan County	26,258	11,766	13,785	431	23,761	28,479
16	McHenry County	264,619	31,189	51,370	0	58,302	288,876
17	McIntosh County	16,951	19,691	16,574	0	36,281	16,934
18	Ransom County	106,237	34,060	43,502	0	75,662	108,137
19	Sargent County	64,408	22,709	28,267	0	65,539	49,845
20	Sheridan County	11,758	9,135	9,322	190	23,775	6,630
21	Slope County	4,130	4,135	1,118	0	5,986	3,397
22	Wells County	83,219	47,345	31,029	17,400	90,840	88,152
23	State Radio County Total	1,438,836	419,278	449,508	64,744	956,245	1,416,122
Other Single & Multi-Jurisdictional PSAPs							
a	Barnes/Valley City	137,849	63,414	81,747	183,625	318,701	147,935
b	Bismarck/Burleigh	883,752	399,168	657,077	799,567	2,001,227	738,336
c	Bottineau/Renville	308,959	61,556	85,372	91,164	261,337	285,714
d	Cavalier County	217,932	28,067	32,723	161,499	178,963	261,258
e	Grand Forks County	879,095	251,181	479,975	745,364	1,569,999	785,617
f	Lake Region E-911 (6 Counties)	48,039	217,534	252,380	6,151	507,210	16,895
g	McKenzie County	177,322	37,350	35,633	167,296	256,559	161,042
h	McLean County	54,543	48,985	64,677	147,555	260,426	55,333
i	Mercer/Oliver	107,965	111,812	80,047	327,829	611,094	16,559
j	Morton County	831,972	122,811	178,662	580,326	1,093,570	620,202
k	Mountrail County	161,642	43,251	62,095	262,557	347,792	181,753
l	Pembina County	81,184	52,025	68,231	118,882	246,787	73,534
m	Pierce County	75,387	26,046	29,986	128,647	216,310	43,756
n	Red River Regional Dispatch	596,283	642,513	1,267,416	791,915	2,886,302	411,825
o	Richland County	7,000	87,751	120,369	525,365	739,486	999
p	Sioux County/NCSD PSAP	38,260	19,447	12,674	0	31,266	39,114
q	Stark/Dunn	204,721	156,886	182,075	535,592	902,027	177,246
r	Steele/Trail	150,455	60,797	71,179	14,422	135,708	161,144
s	Stutsman County	204,492	107,113	139,703	243,608	470,678	224,238
t	Walsh County	263,898	64,663	86,540	270,437	410,964	274,574
u	Ward County	2,071,395	328,310	473,328	744,714	1,638,669	1,979,078
v	Williams/Williston	234,779	70,423	146,578	59,385	369,180	141,984
	Other PSAPs Total	7,599,073	2,937,687	4,526,719	6,722,275	15,135,553	6,650,202
	Grand Total	9,037,910	3,356,965	4,976,227	6,787,020	16,091,798	8,066,324

Emergency Services Communications System (9-1-1) Detailed Expenditures

Based on CY2009 Survey Compiled by the Emergency Services Communications Coordinating Committee

	EQUIPMENT(Purchase/Lease)			EQUIPMENT(Repair/Maintenance)			Staffing: (Salary, Benefits & Payroll Taxes)			911 Network Costs:					Other Operations:									
State Radio Dispatched Counties	9-1-1 Equip.	Radio Equip.	Other Equip.	9-1-1 Equip.	Radio Equip.	Other Equip.	9-1-1 Coordinators	Call Takers/ Dispatchers	PSAP Managers/ Support	Wireless Contract	Qwest Tandem/ Database	Other Local 911	Database Updates	Other Network	PSAP Contract	Supplies (PSAP/ Admin)	GIS (Software, contracts, etc)	Signage (purchase/ contracts)	Training & Travel	Public Education	Facility (rent, util, maint.)	Other	Total	
Adams County	1,212		5,900				1,969			6,688			1,772		9,127		503							27,170
Billings County										2,177		708	52		3,265		9,063	335	669					16,269
Bowman County	711			519			17,970			9,501	2,500		1,566		5,261	216	8,895		1,075		333	4,084		52,632
Burke County			1,500				5,813			4,142		21,309		8,323	7,873	684		10,600	441					60,685
Dickey County				13,382			20,521			14,520	3,454	208	2,772		16,894	470	5,665	1,089	2,477		1,990			83,439
Divide County			935				5,529	-	-	4,939	-	6,874	-	-	16,641	-	-	-	333	-	-	60		35,310
Emmons County							18,201			9,042		900	978		11,640	432	8,613	942	348		194	27		51,317
Foster County							4,344			17,744	2,303		7,724	3,085	19,608				1,104			24		55,935
Golden Valley			1,058		1,200		2,747			4,576		2,209	350	31	5,859	167	6,015		1,645					25,857
Grant County							2,590			5,286	4,277				8,747		10,315		294					31,509
Griggs County							5,925	-	-	7,527	-	-	6,915	-	9,519	313	9,321	-	98	-	-	-		39,617
Hettinger County							6,650			7,987	833		1,230		7,839		3,550					10		28,099
Kidder County							4,256			7,069	4,573				8,235	53	3,550	239	171			10		28,156
LaMoure county		1,076					6,303			9,262	1,485		3,416	143	8,559	209	7,640		579		1,431			40,104
Logan County							1,237			5,992	1,151	1,376	476		6,534	110	6,225		30			630		23,761
McHenry County							3,694			20,817		5,295			20,806		7,040	454	196					58,302
McIntosh County			730				5,700			6,559	2,303		3,393	900	8,400		7,003		261		1,024	10		36,281
Ransom County							10,953			17,910	3,454	7,912	10,584		9,888	305	11,606	156	242		932			75,662
Sargent County		516	463		742		22,871			11,482	2,303	2,772	388		14,132		10,525		992			75		65,539
Sheridan County							4,950	-	-	3,856	-	3,156	-	-	4,622	-	7,100	-	91	-	-	-		23,775
Slope County							3,150			647	625		124		1,359							81		5,986
Wells County							7,148			31,921			33,022		17,400	300			1,049					90,840
	1,923	1,592	10,585	13,901	1,942	-	162,521	-	-	209,643	29,260	52,718	74,761	12,482	222,209	3,259	122,627	13,815	12,094	-	5,905	5,011		956,247
Barnes/Valley City				20,759		2,512	57,428	168,892		40,200	16,640				1,784				2,056		8,431			318,701
Bismarck/Burl.	178,872	11,800	164,350					863,026	206,420	262,537	61,835	8,505	4,286	29,879		40,063	81,779		15,148		72,727			2,001,227
Bottineau/Renville	10,907	-	-	-	5,743	-	17,529	116,166	-	33,535	8,261	12,071	504	-	2,400	4,046	36,462	12,401	1,196	117	-	-		261,337
Cavalier County							3,036	162,838		13,089														178,963
Grand Forks County	66,236	44,976		14,906	52,874	7,846		930,173	12,971	174,171		66,236		780	1,969	3,566	7,900	16,388	5,922	1,439	8,499	153,146		1,569,999
Lake Region (6 Co.)	12,542	16,343		2,590	237		55,009	180,317	24,828	101,925	12,635	74,182		423		175		1,395	5,675	3,349	15,584			507,210
McKenzie County		34,743	7,706		6,008	156		165,040		14,515	3,444	7,123					12,300	1,213	4,311					256,559
McLean County	15,496				6,915		13,243	76,419		23,909	18,500				1,979	3,842		125		100,000				260,426
Mercer/Oliver	97,015	5,491	-	-	2,925	-	40,221	409,278	14	27,420	3,211	12,696	-	-	-	-	-	-	4,171	8,652	-	-		611,094
Morton County	157,439	157,439	9,898		2,698		12,000	556,740		71,765	18,524		4,938		5,850	8,455	14,970	3,533			60,364	8,958		1,093,570
Mountrail County				4,411	24,365	787	20,004	246,634		25,054	4,816	3,589			3,299	8,300	5,729			800		5		347,792
Pembina County	4,558	1,726		4,815	5,213			143,104	26,214	27,789	5,962	18,010		3,266	303	1,350		2,087				2,388		246,787
Pierce County				4,553	163,858		4,553	163,858		12,548				17,965	189		1,241					11,402		216,310
Red River Regional	20,000	20,571	168	57,886	15,292	-	-	1,878,456	-	469,349	112,656	6,625	-	21,000	-	-	52,892	-	-	-	110,400	121,007		2,886,302
Richland County	2,206	35,289	13,043	3,478	4,763	16,276		453,899	51,550	49,006	68,335		1,200			4,473			10,021	1,249		24,698		739,486
Sioux County	6,167			179			2,592	6,014				5,566					983	9,014				751		31,266
Stark/Dunn	27,081	28,675	12,534	12,410	1,739		31,533	551,222	124,150	72,395	19,281		7,876		437	7,000	2,720	1,556	1,418					902,027
Steele/Trail	-	-	-	1,618	-	-	26,475	38,296	-	30,137	8,702	11,985	-	-	10,753	306	-	-	2,436	-	-	5,000		135,708
Stutsman County		4,106		3,000	5,478	5,491		335,439		54,150	15,504	7,200	650	6,658		2,450	23,588		4,782			2,182		470,678
Walsh County			37,373	4,833	5,842	7,214		7,896	262,860	35,423	8,229	7,890			741	3,230		3,186	662	5,690	2,630			410,964
Ward County	368,753	60,345	314,193		34,965	10,310	70,801	447,171	56,272	194,125	5,180	7,758	1,918	42,347		2,951	6,000	974	2,029		10,999	1,579		1,638,669
Williams/Williston	-	-	-	7,392	4,427	1,880	-	240,027	9,847	59,432	28,839	1,601	4,128	-	-	2,259	-	347	1,275	-	7,725	-		369,180
	967,271	421,503	559,265	142,831	179,484	52,472	362,321	8,395,869	529,532	1,792,474	420,554	####	25,499	122,318	15,122	74,869	254,082	64,996	65,228	19,213	388,984	349,329		15,135,551
Statewide Total	969,194	423,095	569,850	156,731	181,426	52,472	524,842	8,395,869	529,532	2,002,117	449,814	####	100,260	134,801	237,331	78,128	376,709	78,811	77,322	19,213	394,889	354,340		16,091,798

APPENDIX D

Emergency Services Communications System (9-1-1) Operational Statistics Based on CY2009 Survey Compiled by the Emergency Services Communications Coordinating Committee

PSAP	Authorized Staff Positions in Each Category - Full-Time/Part-Time							Current Vacancies	
	Dispatcher	Call Taker	Shift Supervisor	GIS/Tech Support	Training	Public Education	Mgmt./Admin.	Full-Time	Part-Time
State Radio	26/2	26/2	4	3/1			3		
Red River Regional Dispatch Center	26		6	3			2		
Bismarck/Burleigh Combined Comm	18		2	1			1.5	3	
Lake Region Law Enforcement Center	8/1	0/1					2		1
Mercer-Oliver E911	11	11	1	0/1	0/3	0/3	2		
Grand Forks 911 Center	14	14	3	1	1	1	1	1	
Morton County/Mandan Comm	12	0	2				1		
Minot Central Dispatch	12/2	0/2					1	2	
Richland County	7		2	1			1		
Stark/Dunn 911	10/1	0/1		0/1			1		
Stutsman County Communications	3/6	0/6	9				1		
McKenzie County Sheriff/911	7		0/1	0/1			0/1	1	
Valley City/Barnes County 911	6/3	6/3	2		2	2	2		
Pembina County 911 PSAP	6/2	0/2	1	0/1			1		
Mountrail County Sheriff's Department	6						2		
Walsh County Communications	6/1	0/1					2		
McLean County E-911	11		2				2		
Cavalier County Sheriff's Department	4/1	4/1					1		
Williston Police Department	5		1						
Trail / Steele 9-1-1	4/1	0/1		1		2	1		
Bottineau County E911	4/2	4/2					0/1		
Pierce County	4/2	0/2							
	210/24	25/8	35/1	7/5	3/3	5/4	27.5/2	7	1

PSAP	On-Duty Staff - Busiest Shift			On-Duty Staff - Quietest Shift			Operational Workstations			Phone lines operational		
	Call Taker (Only)	Call Taker/Dispatcher	Shift Supervisor	Call Taker (Only)	Call Taker/Dispatcher	Shift Supervisor	Can answer 911 calls & dispatch	Can answer 911 calls BUT NOT dispatch	Can dispatch BUT NOT answer 911	Dedicated 911 lines	Admin. lines that 911 calls CAN roll to	Admin. lines that 911 CAN NOT roll to
State Radio		7	1		5	1	8			12	5	
Red River Regional Dispatch Center	2	6	1		3	1	8			10	10	
Bismarck/Burleigh Combined Comm		4			3		6			5	5	4
Lake Region Law Enforcement Center		2			2		3			5		7
Mercer-Oliver E911		2	1		2	1	1	1		2	3	1
Grand Forks 911 Center		4	1		2	1	4			3	6	14
Morton County/Mandan Comm		3	1		2	1	3			5	5	3
Minot Central Dispatch		3			2		5			6	7	9
Richland County		2			2		3			6	6	
Stark/Dunn 911		2			2		4			3	6	6
Stutsman County Communications		2	1		1	1	3			3	4	7
McKenzie County Sheriff/911		3			1		2	1		2	3	1
Valley City/Barnes County 911		2	1		1		3			2	6	2
Pembina County 911 PSAP		2	1		1		2			2	3	2
Mountrail County Sheriff's Department		2			1		3			8		10
Walsh County Communications		2			1		2			3	3	7
McLean County E-911		2			1		2	1		2	3	
Cavalier County Sheriff's Department		1	1		1		2			2		3
Williston Police Department		1	1		1		2		1	3	3	5
Trail / Steele 9-1-1	1	1			1		2	1		2	3	6
Bottineau County E911		1			1		2			2	2	0
Pierce County		1			1		2	2		2		3
	3	55	10	0	37	6	72	6	1	90	83	90

Emergency Services Communications System (9-1-1) Operational Statistics

Based on CY2009 Survey Compiled by the Emergency Services Communications Coordinating Committee

PSAP	Agencies Dispatched					# of radio frequencies in PSAP use (tx & rx)					2009 Call Volume	
	Sheriff/PD	Fire	Quick Reponse	Ambulance (BLS/ALS)	Tribal/ Other	State Radio frequencies	Local emerg. Responders	Public works/school	Pager-only	Other	Total 911 Calls Received	Wireless Adm 911 Calls Non-Received Calls
State Radio	22	60	12	42		3					24,877	Unknown
Red River Regional Dispatch Center	9	31	14	6		5	23	6	3	1	67,573	80%
Bismarck/Burleigh Combined Comm	5	7	1	5	5		18	3	2		23,231	48%
Lake Region Law Enforcement Center	13	31	4	15	4	3	25	1			6,243	55%
Mercer-Oliver E911	9	8		5		6	10	38	2		2,400	Unknown
Grand Forks 911 Center	7	18	14	7			34				20,103	66%
Morton County/Mandan Comm	2	7		6		3	7	3			7,504	68%
Minot Central Dispatch	5	17	2	9	2	3	7	3		1	14,005	71%
Richland County	4	16	8	5		2	12	1	7		3,819	59%
Stark/Dunn 911	6	14		9			2	1			5,135	58%
Stutsman County Communications	3	14	4	4	3	3	4	2			5,223	63%
McKenzie County Sheriff/911	3	10	1	1		2	4	1	1	1	800	53%
Valley City/Barnes County 911	1	10	6	1		3	6	1			3,405	73%
Pembina County 911 PSAP	3	10	4	4		6	36	3	3	2	1,567	55%
Mountrail County Sheriff's Department	3	11		8		1	1				2,353	Unknown
Walsh County Communications	2	11	7	2		3	1	2	1		3,793	70%
McLean County E-911	1	9		7			3	1			1,384	51%
Cavalier County Sheriff's Department	1	12		3	1	3	4				870	31%
Williston Police Department	2	8	2	4		3	5	2	1		6,675	44%
Traill / Steele 9-1-1	4	11	4	7		3	2	1			1,780	Unknown
Bottineau County E911	5	17		12		3	4	1	1		1,823	72%
Pierce County	2	7	2	2		3	2	1	4		267	56%
Cumulative Total Dispatched	112	339	85	164	15		210	71	25	5	204830	68%
Actual Total Number of Agencies	113	373	83	142								

PSAP	Tasks that are performed in the communications center.									
	All 22 PSAPS indicated that their tasks include:	Call Answer- Other (i.e. after hours)	Siren Activation	Surveillance Monitoring	Alarm Board Monitoring	Cable Interrupt	Dispatch City/ Co. Services/ Pub. Works	Jail Door Control	Other (please specify)	
State Radio									Control Terminal	
Red River Regional Dispatch Center		Yes	Yes			Yes			Emerg. Notification Sys.	
Bismarck/Burleigh Combined Comm		Yes	Yes	Yes	Yes		Yes		Emerg. Notification Sys./Alert	
Lake Region Law Enforcement Center		Yes	Yes	Yes	Yes	Yes		Yes	Crisis Line, Utility Emerg.	
Mercer-Oliver E911		Yes	Yes	Yes	Yes			Yes		
Grand Forks 911 Center		Yes	Yes	Yes		Yes				
Morton County/Mandan Comm		Yes	Yes	Yes	Yes		Yes	Yes		
Minot Central Dispatch	911 Calltaking	Yes	Yes	Yes	Yes	Yes	Yes		Case report administration	
Richland County	NCIC/NLETS	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Stark/Dunn 911	LE Dispatch	Yes	Yes	Yes	Yes		Yes			
Stutsman County Communications	Fire Dispatch	Yes	Yes		Yes	Yes	Yes			
McKenzie County Sheriff/911	EMS Dispatch	Yes	Yes	Yes	Yes		Yes	Yes	Case report administration	
Valley City/Barnes County 911	Admin Calls	Yes	Yes	Yes			Yes		Case report administration	
Pembina County 911 PSAP	Warrant Confirm	Yes	Yes	Yes	Yes			Yes	Emerg. Notification Sys./Alert	
Mountrail County Sheriff's Department		Yes	Yes	Yes	Yes			Yes		
Walsh County Communications		Yes	Yes	Yes	Yes	Yes	Yes	Yes		
McLean County E-911		Yes	Yes	Yes			Yes	Yes		
Cavalier County Sheriff's Department		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Search & Rescue	
Williston Police Department		Yes	Yes	Yes		Yes				
Traill / Steele 9-1-1		Yes	Yes	Yes			Yes	Yes		
Bottineau County E911		Yes	Yes	Yes	Yes			Yes		
Pierce County		Yes	Yes	Yes	Yes		Yes			

APPENDIX E

NOTES REGARDING PLANS FOR FUND BALANCES

State Radio Dispatched Counties

Dickey County - Funds reserved for database and paging system

Emmons County - Any remaining balance will be expending on replacing, repairing and adding numerous road signs throughout the county. Little or no maintenance was conducted in 2009 due to other higher priorities by the county highway dept caused by the flooding last spring.

Foster County - Contracts for GIS software pending.

Golden Valley County - In 2009, the county began transferring wireless fees into County 911 to help cover the annual expenses of the fund. 2009 was the first year where the total expenditures exceeded the total fees collected by the county (\$3,049.93). The projected budget for 2010 also shows a deficit of about \$7,000. The balances in the County 911 & Wireless funds will be used to offset the revenue shortfall due to the expected and unexpected increases in the costs of providing 911 services.

Griggs County - We have been trying to develop a plan to get our 911 address signs up. They will be put up this year in 2010.

Hettinger County - Continue working on GIS

McHenry County - Maintain 911 signage and expenses for 911 coordinator

McIntosh County - To continue paying all the bills and to replace signs as needed.

Sargent County - The continued rise in the NDSR fees is a concern it will deplete the fund at a faster pace than the revenues will be able to keep up. Continued changes in technology and meeting the needs of federal and state mandates as well as public expectations continue to cause a rise in technology costs. Mapping and continued signing is our projects that we are hoping to complete with funds as long as they are available. We are looking at local backup needs for service if we lose service thru NDSR due to weather or other unforeseen events. That may be a large cost.

State Radio - This is not the full cost of the State Radio PSAP - it reflects State Radio and local 911 costs paid by the counties only.

Other Single & Multi-Jurisdictional PSAPs

Bismarck/Burleigh - The jurisdiction is currently undertaking the implementation of a new mobile data and AVL system in 2010 and just refreshed all hardware and software for the CPE in 2009. Additional planning is ongoing with a regional interoperable radio communications system with some funding likely allocated to this project, with implementation in 2010. Short and longer term initiatives include transitioning the Center to an IP-enabled emergency network in conjunction with the statewide entity assigned the coordinating responsibility, as well as replacement of the existing CAD system at some point in the next 5-10 years. We anticipate a CAD/RMS/Mobile replacement at that time to exceed \$1.5 million. We also anticipate a large initial financial burden in transitioning to an ESI-Net.

Grand Forks - Current fund balance to be used for relocation of the 911 Center and construction of a tower to enhance a new digital radio system.

Lake Region (6 County) Update to our City Watch (Reverse 911 system) approximately 6,500.00.

McKenzie County - We need to replace our 9-1-1 controller and are saving for that.

McLean County - Fund balance to maintain and run the 911 Center / Operations.

Morton County - Equipment upgrades and maintenance; expansion

Mountrail County - All dispatchers paid out of Property Taxes from the General and OASIS Funds

Pembina County - Upgrade to narrowband paging towers

Pierce County - Funds will be used to help with costs of dispatchers and 9-1-1 signage.

Red River Regional Dispatch - Expenditures include portions paid by Moorhead & Clay Co. MN

Sioux County - Sioux County Share only of North Central PSAP - Mobridge SD

Stark/Dunn Counties - To support CY 2010 911 budget, emergency (just in case) equipment purchases, next generation 911 implementation

Steele/Traill Counties - New paging frequencies - Radio repeater upgrade

Stutsman County - Balance being held for Next Generation 9-1-1 equipment and other system upgrades

Walsh County - Reserve Funds are being held for implementing a future CAD program and also for unknown Next Generation 911 implementation.

Ward County - A 911 Budget Committee was formed to reallocate expenditures for 2010. In the past, a large portion of Minot Central Dispatch's budget was funded with Municipal and County funds. In 2010, this portion will be paid entirely with 911 funds, providing property tax relief. The committee will continue this process annually, until the balance is reduced to a point where this is no longer viable. (An equipment depreciation fund is included in this budget plan.)

**PROPOSED AMENDMENTS TO STANDARDS AND GUIDELINES
FOR EMERGENCY SERVICES COMMUNICATIONS SYSTEMS**
(Proposed new language underlined – Language proposed for removal ~~over-struck~~)

57-40.6-01. Definitions. In this chapter, unless the context or subject matter otherwise requires:

1. "Public safety telecommunicator" means any employee of the state, or any political subdivision thereof, whose primary full-time or part-time duties are receiving, processing, and transmitting public safety information received through an emergency services communications system.

.....

"Public safety answering point service area" means the geographic area for which the answering point has dispatch and emergency communications responsibility.

57-40.6-10. Standards and guidelines.

1. The governing body of the local governmental unit with jurisdiction over an emergency 911-telephone services communications system shall be or shall designate a governing committee ~~of the emergency 911-telephone system~~ which shall:
 - a. ~~Designate a 911~~ an emergency services communications system coordinator to fulfill the responsibilities of subsection 3 of this section.
 - b. Enter written agreements with participating organizations and agencies.
 - c. Designate lines of authority.
 - d. Provide for a written plan for rural addressing, if applicable, which has been coordinated with the local postal authorities. After January 1, 1993, a rural plan must conform to the modified burkle addressing plan. A plan in use before this date does not have to conform with the modified burkle addressing plan. If implemented, all rural addressing signs must comply with the manual on uniform traffic control devices standards.
 - e. ~~Provide for an update of the emergency 911-telephone system's data base annually by obtaining current records from the appropriate telecommunications company.~~

- f. Define a records retention plan for all printed, electronic and recorded records in accordance with state law and jurisdictional requirements.
 - g. Encourage that ~~coin-free dialing~~ cost-free connection is available for 911 emergency calls.
 - h. ~~Define a mechanism to differentiate between emergency 911 telephone calls from other calls~~ Operate or contract for the operation of at least one public safety answering point to manage emergency services communications in compliance with this section.
 - i. ~~Provide for written operating procedures.~~
 - j. ~~Require the public safety answering point that initially receives an emergency call to be responsible for handling that call. If a transfer of an emergency call is made to a secondary public safety answering point, the initial public safety answering point may not disconnect from the three way call unless mutually agreed upon by the two public safety answering point dispatchers. Upon this agreement, the secondary public safety answering point becomes responsible for the call.~~
 - k. ~~Beginning June 1, 2002, ensure that the closest available emergency medical service is dispatched to the scene of medical emergencies regardless of city, county, or district boundaries. The state department of health shall provide emergency 911 telephone systems with necessary geographical information to assist in the implementation of this subdivision.~~
 - l. Ensure that fee proceeds collected under this chapter are expended in accordance with guidelines developed pursuant to section 57-40.6-12 and implement an accounting system sufficient to meet the requirements of section 57-40.6-05.
2. The governing committee may:
- a. Require appropriate liability protection.
 - b. Create a user advisory board.
 - c. Conduct an annual statistical evaluation of services.
 - d. Publish an annual financial report in the official county newspaper.
3. ~~An emergency 911 telephone system must access and dispatch the following services~~ communications system coordinator shall:
- a. ensure that address and mapping data is updated with the emergency services communications system's data base and

mapping system within 30 days of receipt of notice or request for change;

- b. provide for a complete review of the emergency services communications system's landline data base annually by obtaining current records from the appropriate telecommunications companies;
- c. maintain the law enforcement, fire and emergency medical service response boundaries for the public safety answering point service area;
- d. ensure that the dispatch protocols for emergency service notifications are documented and communicated with all law enforcement, fire and emergency medical services.

4. A public safety answering point shall:

- a. be operational 24 hours a day, seven days a week, or be capable of transferring emergency calls to another public safety answering point meeting the requirements of this section during times of non-operation;
- b. no later than July 1, 2013, be continuously staffed with at least one public safety telecommunicator on duty at all times of operation that is dedicated to handling the communications of the public safety answering point;
- c. have the capability to dispatch fire, law enforcement and medical responders to calls for service in the public safety answering point's service area;
- d. have two-way communication with all fire, law enforcement and medical responder units and operational incident or unified commands in the public safety answering point's service area;
- e. as authorized by the governing committee, access and dispatch poison control, suicide prevention, emergency management, and other public or private services; however it may not accept one-way private call-in alarms or devices as 911 calls.
- f. dispatch the emergency medical service that has been determined to be the quickest to arrive to the scene of medical emergencies regardless of city, county or district boundaries. The state department of health shall provide public safety answering points with the physical locations of the emergency

medical services necessary for the implementation of this subdivision;

- g. be capable of providing emergency medical dispatch prearrival instructions on all emergency medical calls. Prearrival instructions must be offered by a public safety telecommunicator who has completed an emergency medical dispatch course approved by the division of emergency health services. Prearrival medical instructions may be given through a mutual aid agreement.
- h. have security measures in place to prevent direct physical public access to on-duty public safety telecommunicators and to prevent direct physical public access to any room or location where public safety answering point equipment and systems are located;
- i. have an alternative source of electrical power that is sufficient to ensure at least six hours of continued operation of emergency communication equipment in the event of a commercial power failure. A public safety answering point must also have equipment to protect critical equipment and systems from irregular power conditions such as power spikes, lightning, and brown-outs. Documented testing of backup equipment must be performed quarterly under load;
- j. maintain a written policy for computer system security and preservation of data;
- k. have the capability of recording and immediate playback of recorded emergency calls and radio traffic;
- l. employ a mechanism to differentiate between emergency calls from other calls;
- m. provide assistance for investigating false or prank calls;
- n. have an alternative method of answering inbound emergency calls at the public safety answering point when its primary emergency services communications system equipment is inoperable;
- o. no later than July 1, 2013, have a written policy, appropriate agreements, and the capability to directly answer emergency

calls and dispatch responders from a separate, independent location other than the main public safety answering point or another public safety answering point meeting the requirements of this section, within sixty minutes of an event that renders the main public safety answering point inoperative, and this alternative location must have independent access to the public safety answering point's landline database. The capability of transferring emergency calls to this alternative location will be tested and documented annually;

- p. remain responsible for all emergency calls received, even if a transfer of such call is made to a second public safety answering point. The initial public safety answering point may not disconnect from the three-way call unless mutually agreed upon by the two public safety telecommunicators. Upon this agreement, the secondary public safety answering point becomes responsible for the call;
- q. employ the necessary telecommunication network and electronic equipment consistent with the minimum technical standards recommended by the national emergency number association to securely receive and respond to emergency communications;
- r. after July 1, 2013, maintain current, up-to-date mapping of its service area and have the ability to use longitude and latitude to direct responders.
- s. secure, from a law enforcement agency or any other agency authorized to take fingerprints, two sets of fingerprints and all other information necessary to secure state criminal history record information and a nationwide background check under federal law for all public safety telecommunicators;
- t. have policies that ensure that all public safety telecommunicators;
 - 1) have no felony convictions,
 - 2) undergo pre-employment screening for hearing and illegal substance use,
 - 3) complete training through an association of public safety communications officials course or equivalent course,
 - 4) be able to appropriately prioritize all calls for service, and
 - 5) be able to determine the appropriate resources to be used in response to all calls for public safety services;

- u. have a written policies establishing procedures for recording and documenting relevant information of every request for service, including:
 - 1) date and time of request for service,
 - 2) name and address of requester, if available,
 - 3) type of incident reported,
 - 4) location of incident reported,
 - 5) description of resources assigned, if any,
 - 6) time of dispatch,
 - 7) time of resource arrival, and
 - 8) time of incident conclusion;
- v. have written policies establishing dispatch procedures and provide periodic training of public safety telecommunicators on those procedures – including:
 - 1) standardized call taking and dispatch procedures,
 - 2) the prompt handling and appropriate routing of misdirected emergency calls,
 - 3) the handling of hang-up emergency calls,
 - 4) the handling of calls from non-English speaking callers, and
 - 5) the handling of calls from hearing impaired and/or mute callers.

- ~~—a. Law enforcement.~~
- ~~—b. Fire service.~~
- ~~—c. Emergency medical service.~~

~~4. An emergency 911 telephone system may access and dispatch the following services:~~

- ~~—a. Poison control.~~
- ~~—b. Suicide prevention.~~
- ~~—c. Emergency management.~~
- ~~—d. Any other related service in subsection 3 or this subsection.~~

~~5. The governing committee of an emergency 911 telephone system shall provide that that system:~~

- ~~—a. Provides twenty four hour, seven day a week coverage.~~
- ~~—b. Dispatches and communicates with service identified in subsection 3.~~
- ~~—c. Records all incoming 911 calls and related radio and telephone communications.~~
- ~~—d. Provides alternate measures in the event of an emergency 911 telephone system failure, including an alternate public safety answering point seven digit number.~~

- ~~—e. Ensures an adequate grade of service that is statistically based by population to assure access to an emergency 911 telephone system.~~
- ~~—f. Does not accept one-way call-in alarms or devices.~~
- ~~—g. Provides access to an emergency 911 telephone system through specialized telecommunications equipment as defined under section 54-44.8-01.~~

~~6. An emergency 911 telephone system may:~~

- ~~—a. Locate the emergency caller utilizing electronic equipment.~~
- ~~—b. Provide a mechanism for investigating false or prank calls.~~

~~7. An emergency 911 telephone system must include at least one public safety answering point.~~

~~8. A cellular 911 call must be routed to the appropriate 911 public safety answering point.~~

~~9. An emergency 911 telephone call must be answered by a dispatcher who has completed training through an association of public safety communications officials course or equivalent course. An emergency 911 dispatch center is required to offer emergency medical dispatch instructions on all emergency medical calls. Prearrival instructions must be offered by a dispatcher who has completed an emergency medical dispatch course approved by the division of emergency health services. Prearrival medical instructions may be given through a mutual aid agreement.~~