



State of Washington

# 911 Cost Study

## Report to the Legislature

Prepared pursuant to:

Section 145, Chapter 6, Laws of 2019,  
Regular Session

(Engrossed Substitute House Bill 1109)

**Washington Military Department**  
**December, 2020**

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## PUBLICATION AND CONTACT INFORMATION

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## ACKNOWLEDGEMENTS

Thank you to Representative Ryu and the legislative body for your interest in 911 in the state of Washington. This study is the result of an extensive amount of work from many dedicated people in the Washington 911 community. We purposefully utilized the many talented people in the state who understand, respect and live with 911 daily. Each 911 County Coordinator was asked to participate as part of the study project team. Even the few who were unable to participate on specific workgroups due to other commitments, contributed by reviewing and providing critical feedback to the process. In addition to 911 County Coordinators, we drew upon the experience and talents of other dedicated professionals from the industry. Public Safety Answering Point (PSAP) Directors, Public Safety Telecommunicators, Local Elected Officials and Telecommunication Industry Representatives all played a vital role in the process. The 911 Community in Washington is a uniquely engaged and collaborative group of dedicated professionals that come from different parts of the industry, with the sole purpose of establishing, maintaining and operating the best 911 system in the country. Without their efforts, this study would not have been possible.

Adam Wasserman, State 911 Coordinator

## EXECUTIVE SUMMARY

The Washington State 911 community thanks the state Legislature for the opportunity to share a very important story about 911. This report includes a response to the proviso on costs and revenue efficiencies and tells the story of what a Public Safety Answering Point<sup>1</sup> (PSAP) is, what they are responsible to do and what they need to accomplish a critical public safety mission. It outlines key recommendations necessary to continue forward progress in the 911 industry and describes how a collective body of 911 professionals have become national leaders using creativity and ingenuity to continue to advance the 911 service in Washington state.

***The Proviso requested three elements including the actual cost per fiscal year for the state, the difference between the actual state and local costs, and current state and local 911 funding with potential cost-savings and efficiencies.***

***In response to Proviso, Section A***, in 2018<sup>2</sup> Public Safety Telecommunicators processed 6,931,101 emergent 911 calls in Washington. The total state and local costs to support the 911 function statewide was \$317.8 million. These costs include the statewide Emergency Services IP Network (ESInet), personnel, facilities, administrative, and capital and contractual costs for the equipment needed for the receipt, delivery, logging and recording of 911 calls. These costs do not include the full functionality of the PSAPs which also includes dispatch services for the law, fire and emergency medical service (EMS) responders. The additional costs for dispatch services was \$17 million for a total cost of \$334.8 million. Broken down, the state costs were \$24 million and county costs were \$310.8 million.

***In response to Proviso, Section B***, the state and local 911 excise tax revenue for this period was \$98 million, which only accounts for 30 percent of the total cost to operate 911. Agency fees, Sales and Use Tax for Emergency Communication Systems and Facilities, grants and other local funding such as property taxes were used to bridge the gap between the 911 excise tax and the actual costs of operating the 911 system. Unfortunately, these other funding mechanisms are often fragile, subject to the whims of the economy and competition from other local budget demands.

***In response to Proviso, Section C***, there have been many cost savings and efficiencies developed over time. Examples you will see in this report are the deployment of ESInet, development of pilot projects and subsequent deployments of equipment consolidation and regionalization efforts, use of cloud-based systems, consolidated buying power for equipment and services, and cultivating strong partnerships and governance models.

This report identifies five key recommendations:

**Key Recommendation: Enhance the governance role of the State 911 Coordination Office (SECO) to develop statewide standards for the 911 system and provide necessary support to county and local 911 operations while maintaining local operational authority of 911 services.** The SECO has played a facilitator role without having any statutory authority

<sup>1</sup> Also known as Emergency Communications Center (ECC)

<sup>2</sup> The Proviso was enacted in the 2019 legislative session. In order to move ahead in the study development, 2018 data was used.

to establish and uphold standards of service to the PSAPs or the 911 technology vendors. This has created challenges in maintaining a consistent level of service statewide. However, this office is uniquely positioned to set standards in the adoption of future technologies and security and share lessons learned in the development of modern technology advancements.

**Key Recommendation: Expand the use of shared technology platforms between PSAPs, creating economies of scale.** With the advancement of technology options, there are several solutions that have proven to be successful. Some of these advancements are being realized and in place today in our state, however they need to be expanded if we are to realize significant efficiencies and keep pace with technology.

**Key Recommendation: Change the Enhanced 911 (E911) account to a non-appropriated account to allow the E911 program to more easily access and utilize funds in this account for intended purposes.** Since the E911 account requires a legislative appropriation, the E911 program does not have a way to request additional expenditure authority in the case of unexpected equipment failures or program emergencies. Revenues received into the E911 account are required to be spent on the E911 program, and as those revenues increase or decrease the program should have a more flexible way to pass surplus revenue in the account to counties to address programmatic or equipment needs.

**Key Recommendation: Develop a sustainable funding plan for all elements of emergency communications, including dispatch.** The greatest challenge to the PSAPs today is the need for dedicated and sustainable funding to support their *full* responsibility which includes *dispatching* and *monitoring* of emergency responders. By state statute, the current 911 excise tax is restricted to just the call answering portion of this process which is not able to meet the needs of today and clearly won't be able to support the evolving technology needs and costs of tomorrow. A funding mechanism needs to be developed that can support each county's needs for all PSAP functions. Therefore, it is recommended the State 911 Advisory Committee (AC) develop a task force to include 911 Coordinators, emergency service providers, 911 service providers and other key stakeholders to further explore and develop a funding plan, to be submitted to the legislature, with options that will support the 911 system from receipt of 911 calls to dispatching and monitoring emergency responders.

**Key Recommendation: Create a certification and reclassification for Public Safety Telecommunicators.** The single most important aspect of 911 success is the performance of the Public Safety Telecommunicators (PST). As the first of the first responders, they gather critical information, de-escalate volatile situations, provide life-saving medical instructions and must remain calm and professional during every call. It is critical that more efforts be placed on mandatory training standards and certification, as well as reclassification (from clerical to first responders) as they are vital key players in the public safety system.

The study identified additional recommendations and best practices which the 911 community is already working toward. The full list is in Section 6 [Recommendations Summary](#).

For the past 50 years, Washington has been a leader in developing and supporting the 911 community. There is a very strong and effective partnership between the SECO, the counties, the 911 coordinator team and the AC. This partnership is unlike any other in the nation. These

teams<sup>3</sup> have consistently worked together to provide the best 911 service to the people of Washington. This hasn't been an easy task as keeping pace with accelerating technologies and meeting the public's expectations is complicated and expensive.

Each county and the Washington State Patrol face unique challenges with respect to 911 and have provided brief stories to describe distinct successes, challenges and efficiencies they have created in their own community<sup>4</sup>. They are committed to continuing the good work together to provide a modern 911 system that supports the needs and demands of communities and will continue to work for sustainable funding for these essential services.

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<sup>3</sup> In 2018, there were 65 PSAPs operating in the 39 counties of Washington State with a total of 1,658 Public Safety Telecommunicators.

<sup>4</sup> County Stories in [Appendix 12](#)

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## 1.0 HISTORY – How did we get here

911<sup>5</sup> is the number people call in the United States to get help in the event of an emergency requiring law enforcement, fire or medical services. A 911 call is routed over dedicated networks to the appropriate 911 PSAP, where trained personnel engage with the caller and send emergency help. A PSAP can also be referred to as an Emergency Communications Center (ECC).

### THE BEGINNING OF 911

On February 16, 1968, Alabama Senator Rankin Fite made the first 911 call in the United States in Haleyville, Alabama. A week later, Nome, Alaska, implemented a 911 system.

The 911 program developed by the Washington State E911 Program Office was unique and unlike any other in the country.

In 1969, Puyallup, Washington became the first locality west of the Mississippi in the lower 48 to have a 911 call center.

In 1985, King County implemented the first E911 system in the state.

In 1991, Washington voters approved Referendum 42 directing all 39 counties to provide E911 emergency communications systems to its citizens by Dec. 31, 1998.

Over the years, there have been many technology changes in Washington.

In 1992, Revised Code of Washington (RCW) [38.52.10](#) went into effect mandating each county singly or in combination with one or more adjacent counties implement countywide or multicounty E911 communications systems ensuring E911 was available throughout the state. The county was to provide funding for the E911 communications system in the county in an amount equal to the amount the maximum tax under RCW [82.14B.030\(1\)](#) would generate in the county less any applicable administrative fee charged by the Washington State Department of Revenue (DOR) or the amount necessary to provide full funding of the system in the county. Eight counties<sup>6</sup> had already implemented E911 systems using local tax dollars when this legislation went into effect.

Referendum 42 established the Washington State E911 Program to assist the counties to assure E911 would be available statewide, RCW [38.52.520](#). It also established the State E911 Advisory Committee to advise and assist the State E911 Coordinator, RCW [38.52.530](#). (See Governance - [State Level](#))

The program developed by the State E911 Program Office was unique, as no other state 911 program in the country provided financial assistance for a wide array of local 911 needs,

<sup>5</sup> The FCC in conjunction with AT&T, chose 9-1-1 as it was short and easy to remember and had never been designated for an office code, area code or service code in the current telephone system.

<sup>6</sup> Clark, King Kitsap, Pierce, Snohomish, Spokane, Thurston and Grays Harbor Counties

assisting in the development of efficient use of facilities, infrastructure and conserving costs while building a robust and modern 911 system.

## 2.0 GOVERNANCE OF 911

The governance of 911 services in the United States is handled by overlapping authorities on federal, state, and local levels.

### 2.1 FEDERAL LEVEL

The Federal Communications Commission (FCC) exercises broad regulatory authority over the provision of 911 service by commercial providers subject to its jurisdiction. Under this regulatory authority, the Commission has adopted numerous regulations governing the provision of 911 and E911, including the implementation of 911 as the emergency number and the requirement to route all 911 calls to the appropriate PSAP.

Other regulations relate to the following:

- E911 location accuracy requirements for wireless carriers;
- E911 requirements for interconnected Voice over Internet Protocols (VoIP) providers; and
- Most recent, the transition to Next Generation 911 (NG911) to further improve location accuracy and to enable the public to transmit emergency communications to PSAP's via text, data and video in addition to voice.

There are other federal agencies which exert governance over NG911 transition:

- The National Highway Traffic Safety Administration (NHTSA) and its Office of Emergency Medical Services, which houses the National 911 Program.
- The Department of Homeland Security (DHS) through its SAFECOM<sup>7</sup> program, works with state level agencies to improve multi-jurisdictional and intergovernmental communications interoperability.

### 2.2 STATE LEVEL

The Washington Military Department operates the State E911 Coordinator's Office (SECO). RCW [38.52.520](#) established the State E911 Coordination Office, and the State Coordinator is responsible for the following duties:

1. Coordinate and facilitate the implementation and operation of E911 emergency communications systems throughout the state;
2. Seek advice and assistance from, and provide staff support for, the E911 Advisory Committee;

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<sup>7</sup> SAFECOM is the United States Homeland Security Office for Interoperability and Compatibility Communications Program

3. Annually recommends the level of the state E911 excise tax for the following year<sup>8</sup> to the Washington State Utilities and Trade Commission<sup>9</sup> (UTC) year;
4. Considers the base needs of individual counties for specific assistance and specifies rules defining the purposes for which available state E911 funding may be expended, with the advice and assistance of the E911 advisory committee, and
5. Provides an annual update to the Enhanced 911 Advisory Committee detailing how much money each county has spent on:
  - Efforts to modernize existing E911 emergency communications systems; and
  - Enhanced 911 operational costs.

In December 2013, the [Blue Ribbon Panel on 911 Funding](#) issued a report to the National 911 Program which addressed the importance of state level governance. It reads in part:

*“The establishment of a State-level entity with statewide authority to address necessary State level functions and responsibilities, with a clearly defined 911 program coordination role, is critical to maximizing the capabilities of 911 systems. State-level 911 authority that is comprehensive and accommodates all forms of originating telecommunication services will be required for NG911 implementation. Legislation defining the role of the State 911 entity should facilitate the coordination of 911 service networks statewide and include the authority to support those State-level system operational functions necessary to ensure a statewide 911 system of systems.”*

Governance and provision of 911 services in Washington, is a mix of statewide services, overseen and provided by the SECO and local provision of 911 services provided by the counties. The UTC also plays a minor regulatory role for 911 under its tariff regulations for provision of wireline services.

### 2.2.1 National Organization Governance Positions

A survey conducted for the [Model State 911 Plan](#) illustrated there were seven different categories where state 911 program agencies are positioned within their state government structure. A critical question is *“How does the Washington state 911 governance position compare to the other states?”* Graph 1 below shows the seven primary categories and the



Graph 1: National Organization of State 911 Agencies

<sup>8</sup> This only applies if the full tax allocation is not in use. Currently, the SECO receives the full allocation allowed.

<sup>9</sup> The UTC is a three-member commission appointed by the governor and confirmed by the state senate.

number of state 911 agencies associated in that authority structure throughout the United States.

### 2.2.2 State 911 Authority Structure

The Model State 911 Plan also identifies specific structures of how state 911 authority and governance is determined, separate from where the agency is housed. Section 3 of the [National 911 Governance Structures Table](#) identified below in Table 1 shows the most common (54 percent) is “State-level 911 authority with statewide geographic planning, coordination, and funding responsibility for full scope 911”.

Did you know?  
The Counties have statutory authority over 911 services

Category	Description	Characteristics
3	State-level 911 authority with statewide geographic planning, coordination, and funding responsibility for full scope of 911.	There are 27 state 911 programs in this category <sup>10</sup> of which Washington is one.

Table 1: National 911 Governance Structures

The [911 Authority Structure Map](#) identifies “most states in this category have a 911 authority that is part of a larger state agency.” The 911 function is a full-fledged organizational component that works within the context and authority of that larger agency. The remaining do not have statutory authority and rely on other state agencies for administrative support, or a separate board or commission that sets policy and exerts decision authority.

Washington is listed in this category and the SECO is a part of and working within the context and authority of the state Military Department. Neither the Military Department nor SECO have statutory authority over 911 services. Instead, RCW [38.52.510](#) specifies counties are responsible to implement 911 emergency communications systems. This division of responsibility is reinforced in the funding model for the state 911 services, described [in Funding Section 4.0](#). The SECO has limited authority as described in Table 2 below.

HAS AUTHORITY	DOES NOT HAVE AUTHORITY
To provide funding to ensure statewide access to 911	To ensure equal 911 service statewide
To provide statewide geographic planning and coordination	To set state standards for vendor system deployment including security and applications
To provide funding assistance to smaller counties to provide equal access to 911	To manage PSAPs deployments including staffing levels, minimum training standards and certification, and additional services provided by the PSAP

Table 2: SECO Authority of 911

<sup>10</sup> The states are Alaska, Alabama, Arizona, Arkansas, California, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Kansas, Maryland, Michigan, Minnesota, Mississippi, Montana, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Utah and Washington.

## 2.3 COUNTY LEVEL

Pursuant to RCW [38.52.510](#), each individual county is responsible for the provision of 911 services within its borders. The Washington State Patrol also operates primary and secondary PSAPs which receives calls through the 911 system. Each county designates a 911 Coordinator<sup>11</sup> responsible for handling the various duties related to the coordination of 911 services within their county.

Each county established its own governance structure to meet its obligation to provide 911 services at a local level. Figure 4 quantifies the county level governance structures within

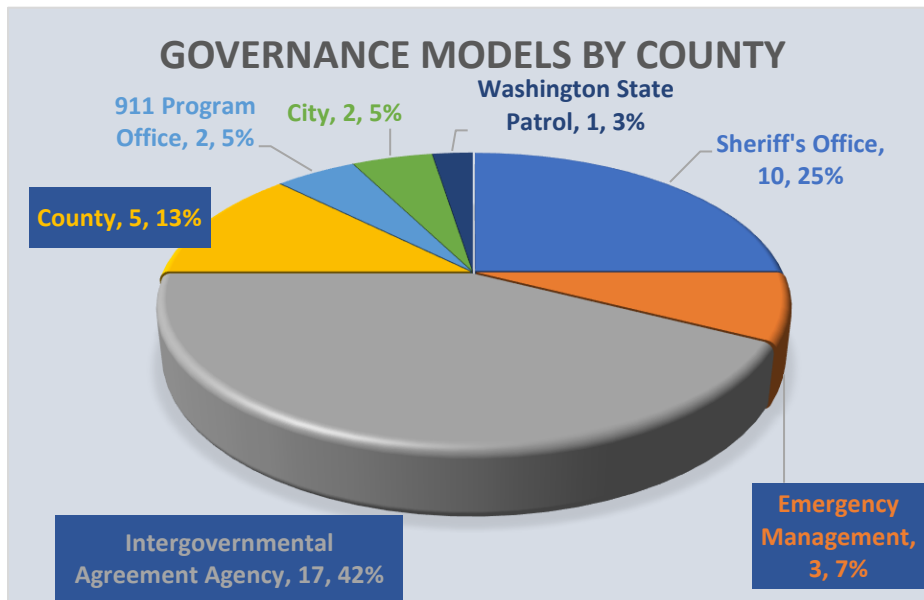


Table 3: Washington State Governance Models by County

Washington. The two predominant structures are County Government (38 percent of counties<sup>12</sup>) and Intergovernmental Agreement Agencies (42 percent of counties). These models may be driven by population base, geographical areas, number of PSAPs operating within the county borders or other local factors. One size may not fit all situations. Detailed responses available in [Appendix 2](#)

## 2.4 FUNDING IMPACTS

Distributions of the state portion of the excise tax to the counties are managed through contract reimbursement grants between the SECO and the counties, further described in [Funding, Section 4](#). These grants vary in dollar value based on financial policies established by the SECO.

This contract reimbursement grant relationship is important to the state level governance discussion as these contracts are the only mechanism the SECO has to enact or enforce any statewide policy, procedure or best practice. The contract reimbursement grants are a proxy for statutory statewide 911 authority.

<sup>11</sup> List of County Coordinators – [Appendix 1](#)

<sup>12</sup> A combination of County agency at 13% and Sheriff's Office at 25%,

## 2.5 IMPROVED EFFICIENCIES

The following areas identify where efficiencies could be made in the governance of 911.

### 2.5.1 Centralized Statutory Authority

Current legislation provides the SECO, in cooperation with the Advisory Committee, the authority to coordinate and facilitate 911 service systems statewide and work to establish a baseline level of 911 service with appropriate funding to ensure consistent access and operation across the state. It does not allow SECO to set standards for the components of the 911 system to meet this baseline.

A Centralized Statutory Authority would standardize statewide access when deploying legislatively mandated technology, training, or services, such as are required in [The Travis Alert Act](#) and [The Trueblood Act](#). It could facilitate consensus or exercise authority to establish technologies, standards and best practices as well as provide equal access statewide for such services.

Efficiencies can be gained by enhancing the SECO governance structure as a Centralized Statutory Authority without losing county level operational authority. This model would support the following:

<i>Customer Premise Equipment (CPE)</i>	A variety of different NG911 telephone systems exist across Washington State. The SECO would have the authority to set baseline functionality standards with system and security requirements with the vendors, the PSAP and/or County.
<i>Purchasing Options</i>	As part of a competitive market, the SECO could leverage the power of group purchasing, reducing costs to both the state and counties. They could: <ul style="list-style-type: none"> <li>• Establish an annual or bi-annual list of approved equipment selected from joint purchasing organizations or other state bid processes, saving a considerable amount of time and money, and providing leverage for smaller purchases.</li> <li>• Purchase and/or host CPE or other applications allowing PSAPs or counties to purchase services directly from the state at a reduced cost.</li> </ul>
<i>PSAP Staffing</i>	The SECO could set baseline training and certification standards and manage statewide training and certification processes. They could develop recruiting strength by creating a website application conduit that links to local PSAPs application process. This supports counties with employment challenges and provides employment information statewide.
<i>Home Rule (Local Authority)</i>	Centralized statutory authority over 911 systems and programs may not be well received under the current structure, primarily because of home rule and local authority at the county and PSAP level. A positive outcome of centralized authority would create a balance between local operational control and a system that ensures statewide interoperability while also maintaining local authority.

Table 4: SECO Governance Change Efficiencies

### 2.5.2 Washington Utilities and Trade Commission (UTC) Authority Modification

Currently in Washington State, there are more than 90 telephone carriers known as Originating Service Providers (OSPs) which either provide 911 service to customers or aggregate traffic for other OSPs. Of these, there are 21 Incumbent Local Exchange Carriers (ILECs).

When 911 first came into usage, the PSAPs were required to place an order for 911 service with the ILECs, before the ILEC's customer's 911 calls were able to be delivered to the PSAPs. Because this was a telephone service, the ILECs charged the PSAPs a fee for the service. Since the UTC was charged with regulating telephone companies and the services they provided, and because 911 was simply just another service offering, tariffs were developed and utilized for the service. There was not any specific "authority" or statute which mandated this service.

As 911 evolved into a statewide essential public safety service, PSAPs merged, consolidated and regionalized. Wireless and VoIP technologies emerged and this funding arrangement with the ILECs never changed. The wireless and VoIP OSPs were expected, by the 911 community and the FCC, to transport their customer's 911 calls to a PSAP without cost to the PSAP – this was considered the cost of doing business.

In 2006, the Counties asked the SECO to aggregate and consolidate the paying of these costs on behalf of the PSAPs. In 2020, the annual cost for 911 service charged by the ILECs is approximately \$2.75 million per year. This is approximately 11 percent of the State's annual 911 excise tax revenue, while the total call volume from these same ILEC's customers is approximately 7 percent of the total 911 calls placed in Washington. This disparity between cost and service is likely to continue as wireline phone use declines but the cost to connect remains the same. The current structure that pays wireline carriers from the 911 excise tax to deliver 911 calls to the ESInet or an ESInet transport provider needs to change. The wireline companies should bear the transport and connection costs just as wireless and VoIP providers do.

### 2.5.3 Revised Code of Washington

The current RCWs regulating the 911 industry are outdated. During the past 4 years, the 911 community has reviewed and drafted new legislative language to prepare Washington for the future. These changes were ready for introduction in the 2021 session but due to COVID-19, they are now postponed until a future legislative session.



## 2.6 GOVERNANCE RECOMMENDATIONS



Key Recommendation: *Enhance the governance role of the State 911 Coordination Office (SECO) to develop statewide standards for the 911 system and provide necessary support to county and local 911 operations while maintaining local operational authority of 911 services.*

Enact legislation that enhances the role of the SECO to include the authority to:

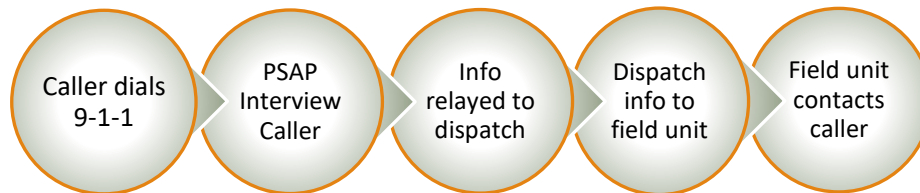
- a. Facilitate the coordination of interoperable 911 service networks statewide and to support those state-level systems;
- b. Develop standards for the components of the 911 systems including security, equipment standards and purchasing options;
- c. Assist local authorities with staffing issues, recruitment, training and certification standards; and
- d. Develop statewide purchasing power.

Recommendation: Change the current 911 fee structure for wireline carriers

Change the current structure that pays wireline carriers from the 911 excise tax to deliver 911 calls to the ESInet or an ESInet transport provider, instead requiring them to bear the cost like wireless and VoIP providers.

## 3.0 OPERATIONS

Each county<sup>13</sup> is responsible for providing 911 services to its community. When a person calls 911, the first point of contact is a PSAP where the process of service delivery for law enforcement, fire and medical service begins. PSAP personnel receive the 911 call, quickly interview the caller and provide the call information to a dispatcher, who in turn relays the information to the field units for a response.



PSAP operations also involve many other components including organizational structure, user agency service agreements and operational requirements, facility purchase and maintenance, hiring, training and retaining staff, managing services, and maintaining strong governmental relationships, all with limited funding.

### 3.1 PSAP STRUCTURE

The PSAP structure can vary greatly between counties. The most common structure in Washington is a single county-wide PSAP providing services for law enforcement, fire and medical services. Additionally, there are several regional PSAPs providing these same services for multiple counties. Less common are single discipline PSAPs providing services for a law enforcement, fire or EMS agency serving a smaller community within a county.

The physical structure of a PSAP has specific building requirements and recommendations from various standards' bodies including National Emergency Number Association (NENA), Association of Public Communications Officials (APCO), National Fire Protection Association (NFPA) and federal, state and local building codes. They must be in facilities with specialized security and structural needs such as controlled entry, ballistic resistant glass, natural disaster resistance, and terror mitigation along with redundant power supplies and built for 24x7 continuous usage. The technology components of a PSAP are continuously being updated and require additional security, redundant power (for example generator, HVAC system, UPS batteries, etc.) and connectivity.

Many PSAPs are co-located with law enforcement, a fire department or emergency operations centers.

### 3.2 PSAP GOVERNANCE

PSAP governance differs based on the county structure and the PSAP location. The PSAP can be a department within a local government structure where governance comes from a department with reporting structure to the department head. The agency could be a separate governmental entity organized with an Interlocal Governmental Agreement (ILA or IGA) between major stakeholders. This type of agency can be governed by a board of elected

<sup>13</sup> [RCW 38.52.510](#)

officials or executive officers of the agencies served. An ILA agency can be organized as a Municipal Corporation, non-profit or as a Public Development Authority.

Because of the essential services they provide, PSAPs typically have a Continuity of Operations Plan (COOP) which could include a back-up facility, an alternate PSAP or portable communications capability.



Figure 1: PSAP Responsibilities

### 3.3 PSAP RESPONSIBILITIES

A PSAP is responsible for a wide variety of services utilizing a wide variety of personnel such as supervisors, trainers, technicians, and administrative staff. These employees may monitor or provide jail service, provide public-facing duties such as record keeping functions and interacting with the public for a variety of different needs. They may enter and maintain warrants, monitor alarms and perform additional administrative duties. They are required to manage public disclosure requests and specific records requests for the agencies they serve including required audio and computer aided

dispatch (CAD) recordings for agency training, quality assurance, disciplinary support, and as part of discovery in criminal cases.

### 3.4 PUBLIC SAFETY TELECOMMUNICATOR RESPONSIBILITIES

Public Safety Telecommunicators (PST)<sup>14</sup> play a vital role as first, first-responders when they answer and process 911 calls and provide radio dispatch and monitoring of field personnel. Their function extends far beyond 911 call taking and dispatching calls for law enforcement, fire and EMS agencies.

The responsibilities of a PST include answering 911 calls, gathering, analyzing and reporting critical information during life or death situations such as crimes in progress, medical emergencies and fire/rescue incidents. They are expected to provide critical lifesaving emergency instructions for medical conditions such as heart attack, choking, childbirth, and injury management for the victim prior to responders arriving on scene. They provide crisis intervention, negotiating with suicidal callers or hostage takers, scene de-escalation, triage of events and information all while processing multiple data streams of information at the same time.

The PSTs who provide dispatching and field unit monitoring duties are required to manage multiple radio frequencies, monitor multiple personnel from law enforcement, fire, medical, emergency management, search and rescue, public works and utilities agencies. They must follow agency protocols for unit notification, consistently provide clear, concise and updated information, make agency administrative notifications, monitor, and keep accurate records of

<sup>14</sup> A Public Safety Telecommunicator is also referred to as 911 Call Taker, Dispatcher, Call Receiver or Communications Officer/Specialist

unit status and needs. They are to take protective actions for responders by providing life-safety information during responses such as officer down or MAYDAY calls.

Some PSAPs separate call processing duties from dispatching duties. Other PSAPs combine these functions for a single PST to manage. PSAPs may deploy a PST to the scene of major emergencies, long term incidents, or planned events, as well as supporting other PSAPs in a disaster, in and out of the state. PSAPs may also require this position to manage administrative functions as described in 3.3 PSAP Responsibilities.

PST **answering 911 calls** - primary performance expectations:

Answer 9-1-1 calls within 15 seconds

Determine the incident location, caller's contact information and reason for assistance

Properly document all necessary information within 90 seconds of call receipt

Provide medical and/or safety instructions, scene de-escalation instructions, and negotiate with callers in high stress situations

PST **dispatch of responders** - primary performance expectations:

Notify appropriate responders of the incident and coordinate the response

Consistently provide and update clear and concise information

Prioritize safety considerations for victims, bystanders, responders

Monitor and document all requests, make agency notifications

These duties and responsibilities may be assigned to a single PST or a combination of PSTs.

Additional PSAP staff and responsibilities are listed in [Appendix 10](#)

### 3.5 RECRUITMENT, HIRING AND RETENTION

Recruiting, hiring and retaining qualified individuals to serve as PSTs is a national challenge and Washington State is no exception. The hiring process is comparable to a law enforcement process. This includes skill testing, a background investigation, a polygraph exam, a psychological exam, hearing and drug tests. Challenges include:

- Competition between centers which can include pay and benefit disparity, agency size and scheduling options;
- Extended hiring timelines due to the hiring process; and the
- Ability of applicants to successfully meet the job requirements of multi-tasking, keyboard, computer skills, and critical thinking.

Combined challenges in recruiting, hiring, training, and retention makes it clear why there are nationwide staff shortages in 911

It is not uncommon for applicants to withdraw from a hiring process after sitting with a PST and observing firsthand the complexity of the position and nature of calls. When a candidate is hired, they must then successfully complete an extensive and rigorous training program. Of those counties who responded to a retention survey<sup>15</sup>, the training completion success rate varies from PSAP to PSAP.

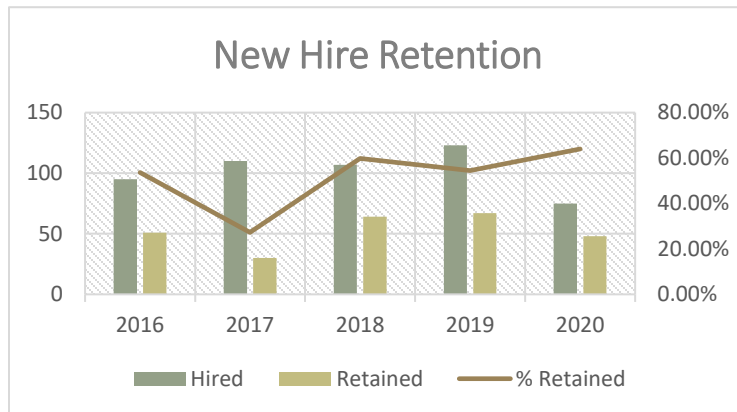


Figure 2: Hiring Retention

In addition to recruiting, hiring, and retention following training, there is a systemic issue in 911 regarding long term and on-going staff vacancy rates. From 2016-2020, those Washington PSAPs surveyed experienced an annual average of 14 percent of PST vacancies. The work environment requires 24/7 shift work, requires overtime for last minute staff absences or shift vacancies, lacks consistent time off, experiences low pay and benefits, and lacks

professional recognition. Frequent exposure to critical incidents, an ever-changing technical environment, and the impact of cumulative stress to a PST adds to the challenges with long-term retention. A report from the APCO published in 2004 identified 97 percent of law enforcement and fire-rescue personnel will work long enough to retire<sup>16</sup>. This is not the case for PSTs. In Washington, the average length is nine and a half years<sup>17</sup>. Nationally, it is less than five years.

Technology constantly changes and PSAPs struggle with the increased individual job complexity for PSTs. This includes the challenge of maintaining appropriate skill levels as the employee ages. As in other public safety professions, this work takes a toll on the PST. Combine the recruitment and hiring process, lack of successful completion of training and tenured staff retention issues, stressful working conditions which can and has led to medical issues including Post Traumatic Stress Disorder (PTSD), it quickly becomes clear why there is a staffing shortage at most PSAPs.

<sup>15</sup> 20 of 39 counties responded to the retention survey

<sup>16</sup> 2004 APCO Project Retains

<sup>17</sup> 20 of 39 counties response to a retention survey

### 3.6 TRAINING & CERTIFICATION

Nationwide, there is a growing trend for states to require standardized training for PSTs. In a recent 2020 study<sup>18</sup>, 29 of 56 states and territories have some level of basic training and 23 of 56 states and territories have some degree of mandated basic continuing education training for PSTs. In Washington, PSAPs develop their own training standards and have historically worked together to voluntarily create a statewide training certification program. Beyond this voluntary effort, there is no state mandated initial training or continuing education requirements for PSTs. State mandated minimum training standards and a certification process is critical to ensure consistent and appropriate content and skills.

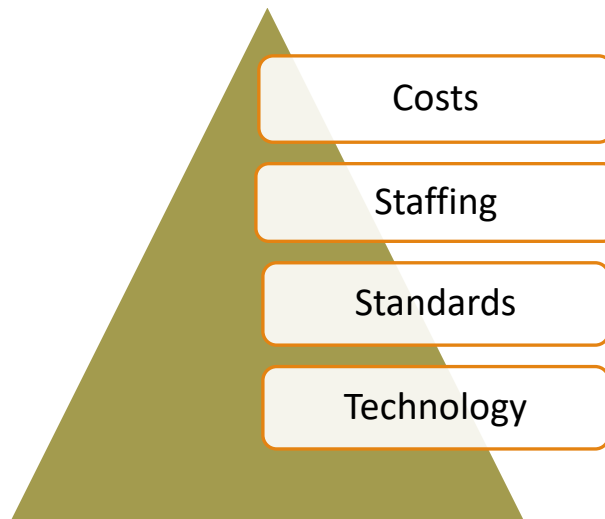
Despite these challenges, Washington is recognized nationally for its training programs. This is, in part, due to the networking and shared professional vision of the PSAP directors.

### 3.7 FUNDING

At the PSAP operation level, lack of sustainable funding for all PSAP functions and responsibilities is one of the primary obstacles. There is not enough funding for call receiving and there is no statewide dedicated funding to sustain the dispatch portion of PSAP operations which includes costly radio infrastructure, equipment and services. Additional funding issues are further explained in Section 4 [Funding](#).

### 3.8 CHALLENGES

The current operational challenges for PSAPs in Washington include but are not limited to:



*Figure 3: Operations Challenges*

**Costs:** Increased operational costs with no sustainable dedicated funding.

**Staffing:** Hiring and retention for PSTs.

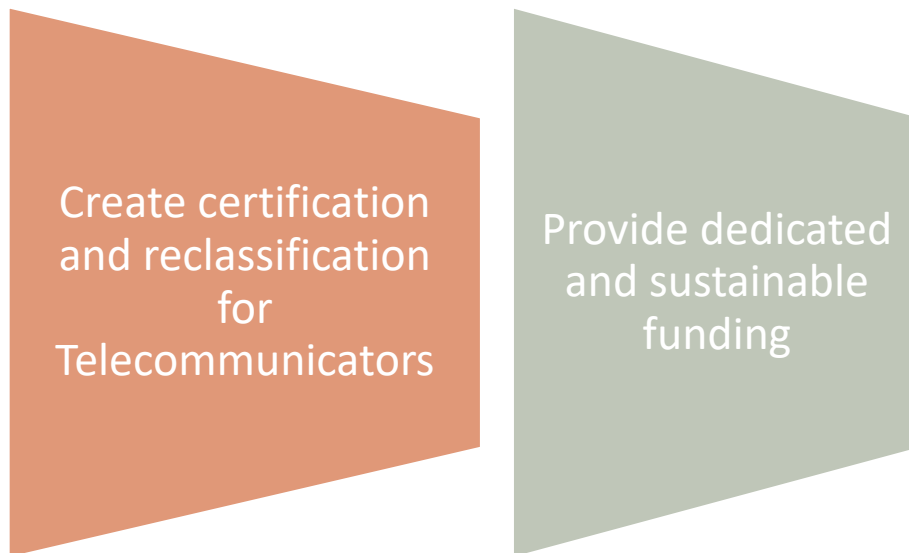
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<sup>18</sup> Haight, K. (2020). 9-1-1: What's our emergency? Diagnosing a struggling occupation serving a neglected system. Downloaded from the NPS Archive: Calhoun <http://hdl.handle.net/10945/64917>

Standards: Ability to meet industry standards such as APCO and NENA for items such as system delivery and answer times, call taking process times, and the need for universal quality assurance and quality improvement.

Technology: Aging infrastructure/technology and rapidly changing technology. The public's increasing expectation of services, widening the gap between expectations and services and capabilities currently available in PSAPs. Multiple platforms for CAD, phones, Emergency Medical Dispatch (EMD), geography and radio-systems making it difficult for centers to share data, technology or personnel between PSAPs.

### 3.9 OPERATIONS RECOMMENDATIONS



**Key Recommendation: *Create a certification and reclassification for Public Safety Telecommunicators.***

Staffing and Retention - Create statewide certification for Public Safety Telecommunicators that includes mandatory and standardized training. Reclassify Public Safety Telecommunicators from a clerical position to a Public Safety First Responder<sup>19</sup>. Provide the professional recognition for the professional job they do. Allow efforts to be considered for a lower retirement age for those tenured employees who can no longer perform the functions due to age, similar to law enforcement and fire personnel.

**Recommendation: Provide dedicated and sustainable funding.**

PSAP operations need funding for all aspects of a PSAP organization including call answering and dispatch services. More thoroughly addressed in the funding section.

<sup>19</sup> <https://www.apointnl.org/government-relations/topics/soc-revision/aligning-job-descriptions-with-protective-nature-of-work>

## 4.0 FUNDING

### 4.1 INTRODUCTION

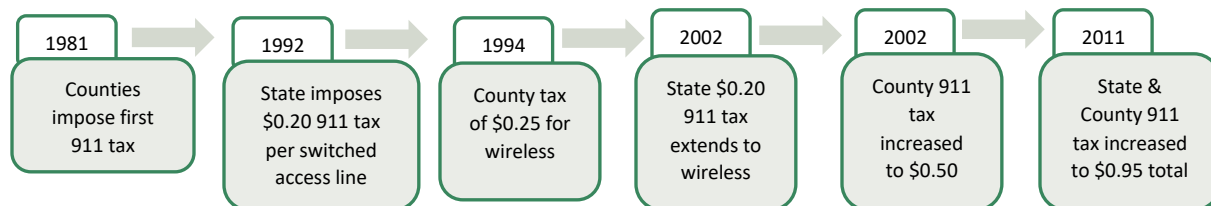
Funding for the 911 system in Washington is accomplished through the collection of an E911 excise tax on telephone devices. This funding was developed when telephone technology consisted of only wireline phones. Technology drastically advanced with the implementation of wireless cell phones and VoIP communication devices. The introduction of smart devices continued the advancement allowing the public to communicate with 911 using a variety of options such as smart phones, smart watches, health care monitoring pendants, and fall monitors.

Today, the older E911 and the newer Next Generation 911 technology are both deployed in Washington. The 911 networks and systems must incorporate current technologies and that comes at a significant cost. Progress must always ensure a stable and responsive system is available to people needing access to emergency services.

### 4.2 STATE TAXES

#### 4.2.1 Evolution of 911 Excise Tax<sup>20</sup>

In 1981, the first 911 excise tax was imposed by counties for switched access lines supporting wireline phones. Over the next 30 years, the taxation for 911 services had minimal increases supporting the advancement of technology as wireless, VoIP, and prepaid phones were deployed. The state and counties worked diligently to create funding efficiencies while building the necessary infrastructure to support the emerging services.



#### 4.2.2 Distribution of 911 Excise Tax

Currently, the state of Washington collects a \$0.95 excise tax on all devices and lines that can access 911. This includes traditional residential and business wireline phones, Voice over Internet Protocol (VoIP) lines, wireless cell phones and pre-paid phone cards. The entire excise tax is collected and distributed by the Department of Revenue (DOR) after the deduction of a 1 percent administrative fee.

- \$0.25 is distributed to the State E911 Coordination office (SECO) to ensure 911 access is operational statewide, to assist counties as necessary to assure they can achieve a basic service level for 911 operations, and to assist counties as practicable to acquire items of a

<sup>20</sup> <https://dor.wa.gov/about/statistics-reports/history-washington-taxes>



capital nature appropriate to modernize 911 systems and increase 911 effectiveness (RCW [38.52.545](#)).

- \$0.70 is distributed to counties. Distribution of funds is based on where the 911 services are purchased and identified in a billing address or, in the case of a pre-paid phone card, the address of the store in which the card was purchased.

The SECO utilizes the \$0.25 to provide and maintain the statewide ESInet, the backbone of the state 911 service, through a contracted vendor. Additionally, the SECO pays wireline connection fees between the primary PSAPs and the ESInet, on behalf of the counties, for the delivery of 911 calls originating in the state of Washington.

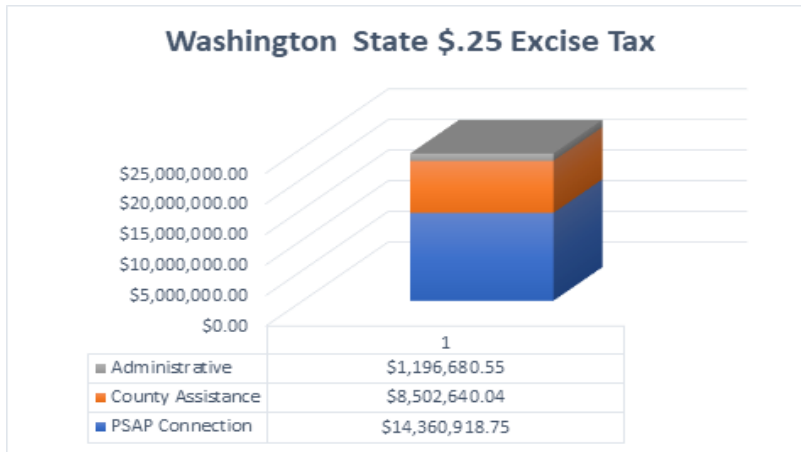


Figure 4: Use of State Portion of 911 Excise Tax

The smaller counties are impacted by reduced population bases and the revenue they can receive from the 911 excise tax. By population, larger counties receive more funding from collected taxes. However, they face the same challenges as other counties to impose additional taxes to

support emergency communications. Additionally, the increased population in the larger counties positively affects the overall excise tax revenue received at the state level. Regardless of all taxes received, each county must sustain technology to allow for equal access to communities and those costs have the same impact in both large and small counties.

The critical nature of public safety call receipt and dispatching should not be dependent upon the population base or competing interests in the various counties, but rather should be based upon a clearly defined and supported funding model that has equal support throughout the state of Washington.

#### 4.3 STATE SALES & USE TAX

In 2002, the Sales and Use Tax for Emergency Communication Systems and Facilities was adopted by the Legislature. It requires voter approval at the local level and allows 1/10 of one percent of local sales and use tax be used for emergency communication systems and facilities. In 2019, the Act was modified allowing up to 2/10 of one percent (RCW [82.14.420](#)) for the same use. There are currently 17 of 39 counties who passed the original tax (1/10 of one percent) and only four counties who have passed the 2/10s of one percent. This tax does not provide funding support for the state 911 system.

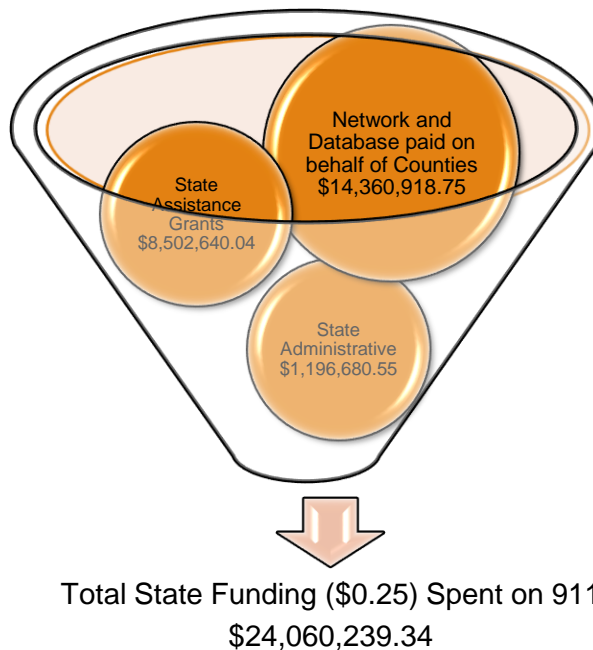
This was a good first step. However, it is a local decision for ballot placement and competes with many other issues both politically and publicly. Funds are affected by the state of the economy and can also be diverted away from PSAP operations for other emergency systems and facilities such as radio systems. PSAPs need dedicated funds to meet all operational responsibilities.

#### 4.4 STATE COSTS & REIMBURSEMENT CONTRACTS

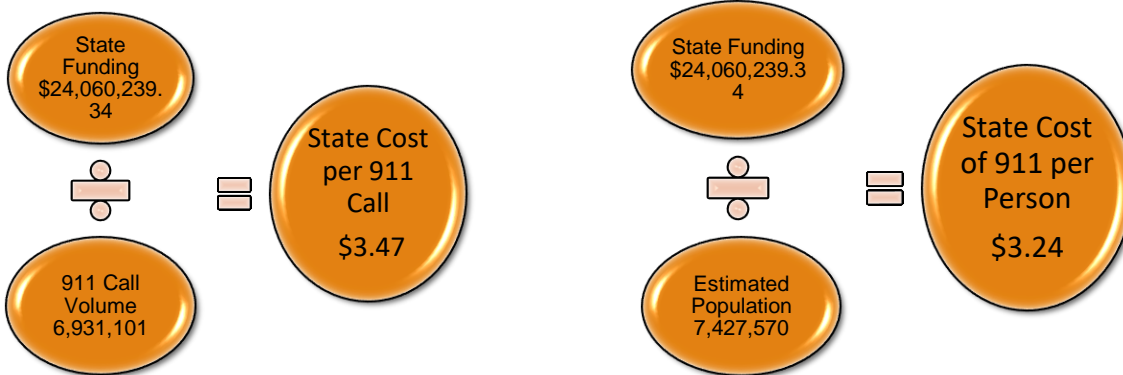
In fiscal year 2018 (FY18), the SECO used 100 percent of the State 911 excise tax received (\$24,060,239.34) to directly support 911 statewide. This included administrative costs, state assistance grants, and the network and database costs paid on behalf of the counties. The SECO maintains reimbursement contracts with all 39 counties in Washington and the Washington State Patrol Communications Section to support state assistance grants. A county is eligible for reimbursement of WAC eligible expenses if they meet specific requirements including:

- Compliance with ESInet cyber security standards
- The county's 911 costs and expenditures exceed the local (\$0.70) excise tax revenue for WAC [118-66-050](#) eligible items and subject to SECO Policy caps; and
- The county spent 100 percent of its local telephone excise tax on WAC eligible items in the previous year.

A detailed breakdown of funds disbursed to, or spent on behalf of, each county and the Washington State Patrol can be found in [Appendix 7](#). Expenses not identified in WAC [118-66-060](#) are not eligible for reimbursement.



The following examples show a simple breakdown of the average cost per call and average cost per person using the state portion of the 911 excise tax distribution. See [Appendix 6](#) to review individual county 911 excise tax costs per call and per person.



#### 4.5 COUNTY USE OF EXCISE TAX

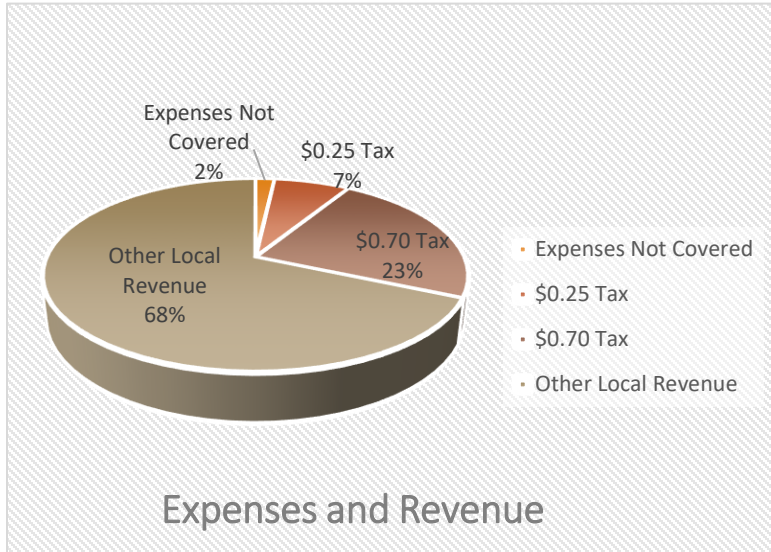
Defined by WAC [118-66-060](#), counties are limited on how they can use the remaining \$0.70 of the total excise tax. This includes management services, human resources, legal costs, financial services, PSAP and 911 administration lease/purchase costs, E911 building repair and maintenance, major systems replacement/repair, E911 property and liability insurance, a 911 and PSAP administrative telephone system, E911 / NG 911 reserve accounts and radio communications service companies (aka cellular/wireless service providers) wireless E911 recovery expenses.

#### 4.6 REVENUE TRENDS

Early revenue models were based on the number of wireline phones in use and later, on wireless phones. Over the course of the last decade, the number of wireline phones has significantly decreased, as consumers disconnected their home phones in favor of their wireless devices. This trend has shifted revenues as well. The current trend shows wireline revenue continuing to decline while the wireless, VoIP and prepaid stay somewhat consistent. Due to one-time revenue corrections in years 2013 and 2017, the graph shows a spike in revenue. As the cellular market saturation peaks, the 911 excise tax revenue stream has not and is not able to keep pace with the growing consumer demands and increased technology costs.



Graph 2: Ten Year Revenue Trend of State Portion of Excise Tax



Graph 3: Local Revenue Use

## 4.7 PSAP OPERATING COSTS

A PSAP's operational responsibility includes not just the answering of 911 calls, but also the processing of the information received and the dispatching and monitoring of the law enforcement, fire and EMS providers as previously defined in [Operations Section 3.3](#). In 2018, cost estimates<sup>21</sup> of operating PSAPs, from call maker to field response, was \$335 million. This amount does not include all the radio infrastructure costs. The cost estimates for just the call

maker to the PSAP interview, as described in Figure 5<sup>22</sup> below, was \$317.8 million. The 911 excise tax, by statute, only provides funding for the 911 component of the PSAP operations in the amount of \$98 million. In 2018, this funding only covered 23 percent of the overall cost of 911. In many counties, the current excise tax does not cover the basic cost of 911 and it has never funded the full operating costs of the PSAP at the local level. Counties are required to use other revenue sources to cover those costs including, but not limited to, local Sales and Use Tax for Emergency communication Systems and Facilities of up to 2/10 of one percent (RCW [82.14.420](#)), charging user agency fees, or utilizing other local revenue sources.

In 2018 there was an overall shortfall of funding of \$5,548,611.00 across the state. Counties had to rely on reserve accounts and external grants to balance funding needs. Many factors play a role in shortfalls including unplanned equipment failures, repayment of bonds (even after the equipment purchased has reached its end-of-life cycle), and unstable revenue sources such as is inherent in the Sales and Use Tax for Emergency Communication Systems and Facilities.

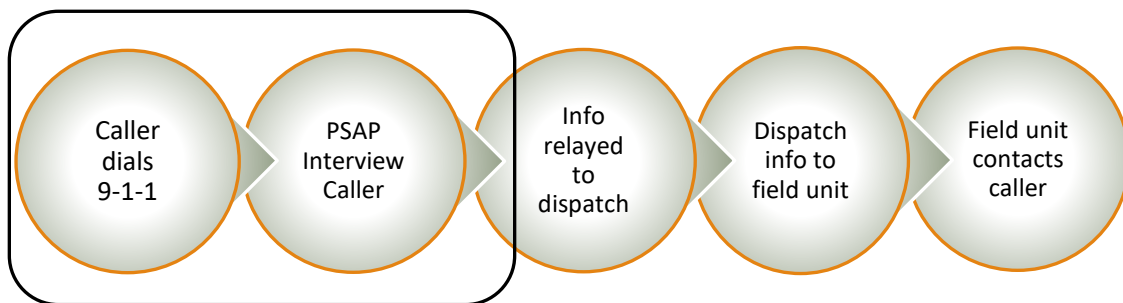


Figure 5: 911 Excise tax funded

Funded by 911 excise tax and local funds

Locally funded

<sup>21</sup> Radio systems in the larger counties are funded separately and not included in these estimates

<sup>22</sup> This is also depicted in [Technology Section 5.1](#)

## 4.8 WIRELINE & WIRELESS REGULATORY

Wireline calls comprise approximately seven percent of the 911 call volume but the costs to support the cost recovery for wireline carriers consumes 11 percent of the state's revenue.

Wireline providers are regulated at the state level by the UTC. WAC 480-120-450 (3) states "LECs choosing to provide E911 services including selective routing, database management and transmission of the call to a PSAP must file with the commission tariffs and supporting cost studies that specify the charges and terms for E911 services." This causes an added burden to the 911 system as the current regulations require the state to pay an extremely high rates for connections, routing fees, and database charges to a small percentage of wireline providers as describe in [Section 2.5.2](#). Wireless and VoIP are regulated by the Federal Communications Commission (FCC) and providers are required to deliver the 911 calls at their own cost.

## 4.9 FINANCIAL IMPACT OF EMERGING TECHNOLOGIES

As traditional funding sources continue to erode, new technologies gain popularity in the general market, requiring changes in the current funding model to accommodate the new modes of accessing 911. This includes digital technologies utilized in our homes and businesses that can notify 911. Many businesses today utilize video tele-conference technology which should provide access to 911 and therefore be subject to 911 taxation. Additionally, the era of 5G has arrived and with this new technology comes exponential growth. A vehicle can notify 911 and the local hospital of the type of injuries to expect in a specific car accident, including how many patients should be in the vehicle. As technology advances, legislation needs to be ready to apply charges on all services that can access 911.

The nature of the 911 business requires the state and counties to be as nimble fiscally as they are technologically. It is critical to have sustainable funding mechanisms as well as reserve accounts or fund balances, without the fear of fund diversion, to support the entire 911 system,

Did you know?

911 funding does not support the process of dispatching and monitoring law, fire and EMS responders.

from call receipt to dispatch of appropriate public safety response. This is both appropriate and necessary to reduce delays in implementing needed technology that assists in the safety and welfare of the citizens of Washington State, including the law enforcement, fire and EMS responders who provide those services. It is also what the consumer demands.

## 4.10 FINANCIAL RISKS & IMPACTS

Long range 911 planning requires a safe and protected funding source that can accumulate over time and is not subject to repurposing during difficult fiscal years. When 911 funds are diverted, it puts the growth of the 911 system at risk and impacts the state and counties from participating in vital federal grants. Since 2001, almost \$33.5 million of 911 excise tax funds were diverted away from the 911 program for non-911 purposes as described in Figure 6 below. This had a devastating impact on the 911 program statewide and delayed the growth of the 911 system.

2001-2003 Biennium Budget	2003-2011 Biennial Budgets	2011-2013 Biennial Budget	2013-2015 Biennial Budget	2015-2017 Biennial Budget
<ul style="list-style-type: none"> <li>•\$6M to State General Fund for FY2003</li> </ul>	<ul style="list-style-type: none"> <li>•\$2.3M to WSP for CAD system over 4 Biennia</li> </ul>	<ul style="list-style-type: none"> <li>•\$2M to the Department of Corrections to meet an FCC narrow band requirement.</li> </ul>	<ul style="list-style-type: none"> <li>•\$10.842M to the Washington State Military Department (fund shift by the Legislature)</li> <li>•\$3.867M to the WSP for Mobile Office Platform</li> <li>•\$2M to Department of Corrections for radio infrastructure upgrade.</li> </ul>	<ul style="list-style-type: none"> <li>•\$2.7M (fund shift by the Legislature to replace equivalent GF-S normal source of funding for the department's operating budget)</li> <li>•\$3.009M to WSP</li> <li>•\$633K for state government policy compensation changes</li> <li>•\$130K for King County CPR cellular pilot program</li> </ul>

Figure 6: Historical 911 Fund Diversion

In 2018, the SECO was not able to fulfill their commitment to purchase CPE for four counties as systems continued to fail. These counties petitioned the state Legislature and were awarded \$2 million from the State 911 fund to support their purchases. In FY18, Coordinator Professional Development contracts were cut in half, mid biennium, due to financial shortfalls in the SECO budget created by additional vendor carryover costs in the deployment of the new ESInet. There was no financial safety net to address this type of occurrence even though cost overruns can naturally occur. A protected reserve account or minimum fund balance is necessary to protect critical projects.



#### 4.11 911 TAX RATE COMPARISONS

The following is a sample range<sup>23</sup> of 911 fees from similar states to Washington by population or geography for Wireline, Wireless, VoIP, and Prepaid.

State	Wireline, Wireless, VoIP, Prepaid
California	Three-fourths of 1% percent (.0075)
Idaho	\$1.00 - \$1.25 (max)
Illinois	\$1.50 \$5.00 City of Chicago 9.0% of Sale City of Chicago – Prepaid 3% of Retail Sale - Prepaid
Indiana	\$1.00
Michigan	\$0.25 State Fee \$0.00 - \$3.00 by County 5% Point of Sale - Prepaid
Missouri <sup>24</sup>	2% - 15% of Base Rate (45 Counties) 1/8% - 1% of Sales Tax (51 Counties) Unfunded– (19 Counties)
Tennessee	\$1.16
Washington	\$0.25 Statewide \$0.70 by Counties

Table 5: 911 Tax Rate Comparisons

#### 4.12 FINANCIAL EFFICIENCIES

There are several efficiencies that would benefit the state and local 911 systems and create cost savings. One example is the [Multi-node technology](#). It has the capacity to serve up to 300 call taking positions where many of the current PSAPs need 10 or less positions. It would require significant up-front implementation costs but would eventually allow the state to realize cost savings and long-term gains.

An additional efficiency is changing the current appropriated budget fund to a non-appropriated account. This would allow the SECO to release funds from the Office of Financial Management (OFM). It would also allow the SECO the ability to build a protected fund balance or reserve account to ensure funds are available for large scale projects. This would create an opportunity for equal access to new 911 technology across the state.

<sup>23</sup> As of September 2020

<sup>24</sup> Missouri does not charge a 911 fee for Wireless or VoIP

## 4.13 FINANCIAL RECOMMENDATIONS



Key Recommendation: Create a sustainable funding plan for all elements of emergency communications, including dispatch.

The greatest challenge to the PSAPs today is the need for dedicated and sustainable funding to support their *full* responsibility which includes *dispatching* and *monitoring* of emergency responders. By state statute, the current 911 excise tax is restricted to just the call answering portion of this process which is not able to meet the needs of today and clearly won't be able to support the evolving technology needs and costs of tomorrow. The critical nature of public safety call receipt and dispatching should not be dependent upon the population base or competing interests in the various counties, but rather should be based upon a clearly defined and supported funding model that has equal support throughout the State of Washington. A funding mechanism needs to be developed that can support each county's needs for all PSAP functions. Therefore, it is recommended the State 911 Advisory Committee (AC) develop a task force to include 911 Coordinators, emergency service providers, 911 service providers and other key stakeholders to further explore and develop a funding plan, to be submitted to the legislature, with options that will support the 911 system from receipt of 911 calls to dispatching and monitoring emergency responders.

Key Recommendation: Change the E911 account to a non-appropriated account to allow the E911 program to more easily access and utilize funds in this account for their intended purpose.

Since the E911 account requires a legislative appropriation, the E911 program does not have a way to request additional expenditure authority in the case of unexpected equipment failures or program emergencies. Revenues received into the E911 account are required to be spent on the E911 program, and as those revenues increase or decrease the program should have a more flexible way to pass surplus revenue in the account to counties to address programmatic or equipment needs.

Recommendation: Change RCW to collect 911 tax from new technologies. Change current RCWs to ensure new technologies that access 911 pay the current tax.



## 5.0 TECHNOLOGY

Over the past 20 years, Washington has led the nation in developing and implementing new technologies. The unique partnership between the SECO, the AC and the county 911 Coordinators has allowed creativity and progressive efforts to build the best systems available. However, counties have different needs, and each region has unique challenges that limits its ability to deploy new technologies. This can include terrain, infrastructure, lack of funding, staffing issues, political agendas, delayed technology, or PSAPs are not ready operationally. Despite the challenges, progress continues as this section outlines.

Did you know?  
The dispatch and monitoring of first responders is a separate function from E911 call processing.

### 5.1 CURRENT STATE OF 911

A 911 call placed in Washington passes through several networks and systems before it is answered at a PSAP. Once the caller initiates the call, it is captured by the local exchange carrier, or wireless service provider, passing through their networks to the State Emergency Services IP network (ESInet) for routing to the pre-determined PSAP. The call is answered at the PSAP on a specialized 911 telephone system that displays the number and approximate location of the caller, and a PST interviews the caller to verify the location of the emergency and type of assistance required, as noted in Figure 6.

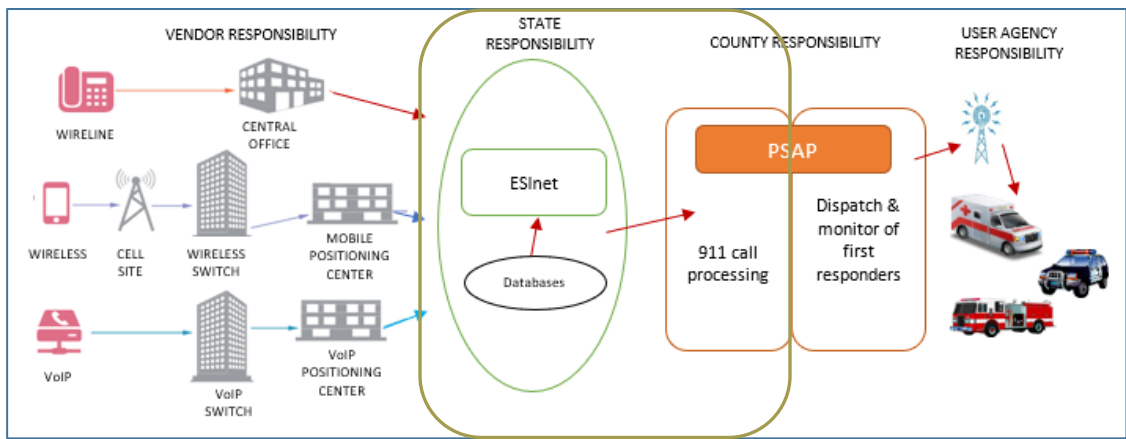
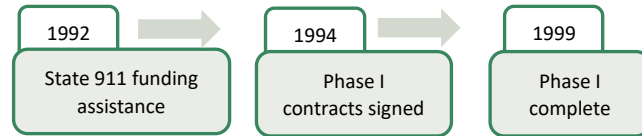


Figure 7: 911 System Responsibility- Note: The green highlight box identifies where the majority of the State 911 Excise Tax can be used for eligible expenses.

The dispatch and monitoring of first responders are a separate function from E911 call handling within the PSAP. However, dependent on the size and structure of the agency, both functions can be processed by the same, different or multiple PSTs. Often the dispatching technology, such as radio systems and infrastructure, limits the ability for 911 changes in the PSAP. Those dispatch technology needs are not included in this report.

## 5.2 EVOLUTION OF 911

### 5.2.1 911 Changes – Migrating to E911



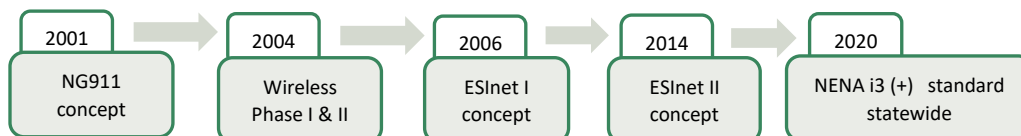
1992 - Each county had multiple law enforcement, fire and EMS agencies, many having their own 911 PSAP and dispatch center. In early 1992, eight<sup>25</sup> agencies independently began the implementation of Phase I wireless using local funds. Following those first initiations, the state 911 office, with the advice of the E911 Advisory Committee, determined it was able to provide funding for one primary answering point in each of the 31 remaining counties. From 1992 to 1994, contractual agreements were signed with the 31 counties, providing \$25k to each to assist with the development of consolidation implementation plans and budget proposals to deploy a single county wide primary PSAP.

1994 - The state 911 office created Implementation Contracts with all 31 counties. By December 31, 1998, all 31 counties had consolidated their PSAP operations into one. More than \$25 million state 911 funds were used to support this effort.

1999 - In January 1999, all 39 counties<sup>26</sup> in Washington were receiving E911 phone calls, providing the wireline telephone number and billing address<sup>27</sup> of the caller.

### 5.2.2 911 Changes – Migrating to NG911

The State E911 Coordination Office (SECO), with support of the AC, procured one of the first Emergency Services Internet Protocol Networks (ESInet) in the nation. This deployment used modern technology and set the stage for deployment of true next generation technologies in Washington for years to come.



2001 – The concept of NG911 was developed to move Washington’s 911 system beyond E911. This would develop and deploy current [NENA i3 standards](#).

<sup>25</sup> Clark, Grays Harbor, King, Kitsap, Pierce, Snohomish, Spokane and Thurston Counties

<sup>26</sup> There were 90 PSAPs statewide, including secondary PSAPs, larger counties with more than one primary PSAP, and additional state and federal PSAPs.

<sup>27</sup> Known as Automatic Number Indicator (ANI) and Automatic Location Indicator (ALI)

2004 – After several years of planning, the implementation of Wireless 911 Phase I and Phase II began. This provided PSAPs with telephone numbers of wireless (cellular) devices, geographical location services beyond a billing address, and routing of mobile wireless phones to the appropriate PSAP.

2006 – the concept for the first ESInet was developed to support continued migration into NG911.

2014 – The build concept for the second ESInet design began, supporting additional NG911 components. The second generation of ESInet (ESInet II) provides current state-of-the-art digital technologies allowing modern telephony systems to take advantage of more advanced features and functions, such as text and video, and allowing operational efficiencies.

The current ESInet in Washington State is the first large deployment of its kind in the United States.

2020 – Completion of ESInet II, which is fully capable of transporting voice calls, text, data, images, video and more. This replaces the E911 networks with more secure, modernized software and networks expanding the capability to provide more technologies such as text, photos, video, telematics and personal data provided through third party applications. It is database driven to enable an exponential increase in available data and information sharing possibilities. It provides flexibility and individual agency choice to determine information needs based on predetermined business/policy rules.

### 5.3 EVOLUTION OF 911 – PSAP SYSTEMS & NETWORK CONFIGURATIONS

In 2015, the FCC recognized many of the same issues the state of Washington is tackling now and formed a [Task Force on Optimal Public Safety Answering Point Architecture](#) (TFOPA)<sup>28</sup>. Over the next two years, TFOPA studied and reported on, among other things, optimal PSAP system and network configuration in terms of emergency communications efficiency, performance, and operations functionality. The report identified several models for creating more efficient PSAP technology architecture.

Sharing infrastructure among multiple PSAPs involves the utilization of equipment and software that take advantage of Internet Protocol (IP) technology via the ESInet transport networks. Infrastructure sharing offers the potential for optimization in many areas such as cost, operations, interoperability, shared services, and survivability.

PSAP optimization does not necessarily mean consolidating PSAPs. For example, in a host & remote solution, or a shared systems environment, PSAPs can capitalize on:

- Sharing systems, networks, and staff; and
- Engaging in joint purchasing.

The decision to optimize PSAPs must consider if it makes sense operationally, financially and politically.

<sup>28</sup> (Federal Communications Commission, 2016)

In the following models, call handling is the common functionality. In a NG911 deployment, the 911 Call Processing Equipment (CPE) doesn't need to be of the same manufacturer or in a static location. In larger deployments, e.g., regional or state-wide, numerous 911 CPE vendors may be in use and in different locations. Additionally, a single system with core equipment located in geo-diverse locations can support multiple PSAPs. An example would be a Host & Remote solution diagrammed in Figure 7 and addressed in Section 5.6 [Multi-Node \(Host/Remote\) Migrations](#).

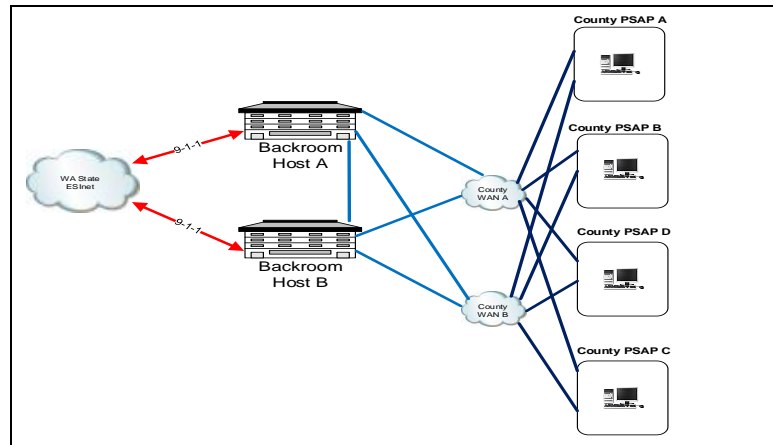
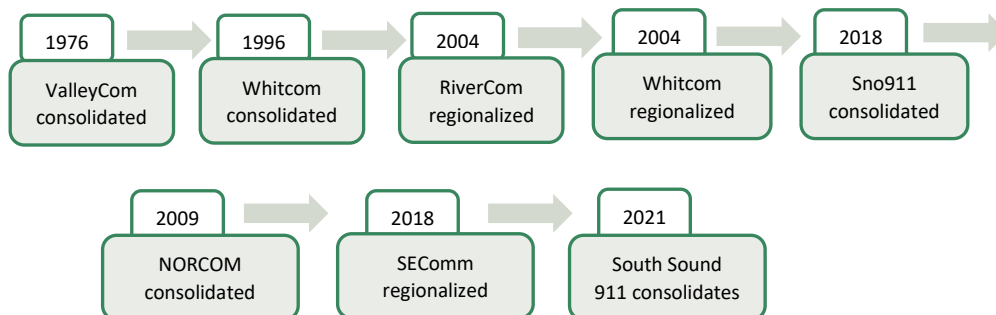


Figure 8: Multi-Node (Host/Remote) Network

## 5.4 EVOLUTION OF 911 – CONSOLIDATION & REGIONALIZATION

### 5.4.1 Consolidation by Geographic Area

Washington counties develop progressive and efficient models of service, conserving resources, facilities, networking, funding and staff by consolidating and regionalizing PSAPs. The following events were consolidations by geographic area.



1976 – Valley Communications was formed, consolidating emergency communications for Auburn, Kent, Renton and Tukwila with the city of Federal Way joining in 2000. Today, Valley Com serves nine law enforcement agencies, 13 fire agencies, King County Medic One and the SCORE Correctional Entity.

1996 – Whitcom was formed, consolidating 911 call receiving and dispatch services for Whitman County, city of Pullman, and Washington State University.

2004 –Regionalized RiverCom began providing 911 call receiving and dispatch services for law

enforcement, fire and EMS for Chelan and Douglas counties. This effort began in November 2002.

2004 –The consolidated center of WhitCom regionalized with Moscow, Idaho and Asotin County. This regionalization incorporated law enforcement, fire and EMS dispatch for the Nez Pearce Tribe, Asotin County, city of Moscow, city of Clarkston and the University of Idaho.

2018 –Sno911 began operations as a county wide PSAP in Snohomish County. Efforts began in 2015 to consolidate the two remaining PSAPs (SNOCOM and SNOPAC). In 2017, the final decision was made to move forward with Sno911, concluding 15 months later.

2009 – Northeast King County Regional Communications Center (NORCOM) consolidated operations for five law enforcement agencies and 14 fire agencies in northeast King County and south Snohomish counties. Discussions began in 2004 and an interlocal agreement was signed in 2007.

2018 –Regionalized SEComm began providing 911 call receiving and dispatch services for law enforcement, fire and EMS for Benton and Franklin counties and fire services for Walla Walla Fire District #5. Informal discussions began prior to 2008 with formal discussions occurring in 2015. The final decision was made in 2017 and the regionalization was completed one year later.

2021 –South Sound 911 will complete the second consolidation process in Pierce County, relocating four separate worksites into a Public Safety Communications Center. The overall consolidation process took more than 16 years.

### Consolidation & Regionalization Highlights

**Funding:** all available funding sources were needed including state and local 911 excise tax, bonds, local sales and use tax, user agency fees, and governing agency general fund

**Challenges:** Radio systems, consolidating employees, sharing joint equipment, funding, and governance. Disparate policies and procedures.

**Efficiencies:** Reduced long term costs, reduced equipment and maintenance, reduced staff needs

**Key message:** Efforts to consolidate or regionalize requires strong political support, significant funding, critical infrastructure to support changes to all aspects of emergency communications including radio, and patience.

Advantages	Disadvantages
Reduced staff needs and long-term equipment and maintenance costs.	Disparate technology can increase operational complexity and costs.
Multi-discipline approach often results in quicker response times.	

Table 6: Consolidation & Regionalization

### 5.4.2 Consolidation by Discipline

The Consolidation by Discipline model separates the PSAP structure by the discipline they serve. In King County, two of the 12 PSAPs, are consolidated by discipline. The Seattle law enforcement PSAP is primary and answers all 911 calls in that jurisdiction first. Fire and EMS calls are then transferred to Seattle Fire, the secondary PSAP. Both agencies provide dispatch services for their separate discipline. This model is effective in highly populated areas and provides for a higher level of specialization for both the primary and secondary staff. This model is also used successfully in New York City.



### Seattle Police & Fire Highlights

**Funding:** Local government funds and King County E911 Program Office 911 excise tax funds.

**Challenges:** Employees from different union affiliations and governance structure.

**Efficiencies:** Discipline focused, PSAPs in separate locations providing backup facilities to each other

**Key message:** The City of Seattle effectively supports Police and Fire services for its community with two PSAPs, processing more than 650,000 911 calls a year while serving more than 563,000 people.

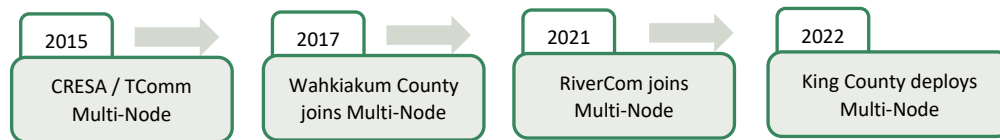
Advantages	Disadvantages
Call takers can specialize in a specific discipline which may provide better quality of service to the public and decrease workload	Secondary PSAP calls require a transfer, adding time to call processing.
Staffing provides the ability to handle "surge capacity" or large call volume increases from a specific geographic area surrounding a single PSAP.	There may be duplication of functions and equipment. In addition, coming to a common ground on standard operating procedures can be a challenge.

Table 7: Consolidation by Discipline

## 5.5 MULTI-NODE (HOST & REMOTE)

Traditionally equipment and systems in the public safety space have been isolated and siloed, with an emphasis on single agency use. Each PSAP buys and maintains a 911 telephone handling system. With the rise of NG911, the expansion of host/remote, or shared systems allow for increased capacity and increased capability.

This model can include variations wherein PSAPs maintain separate physical locations but share common call handling, and other services such as radio, CAD or other public safety dispatching equipment over a secure managed network. These environments are positioned to readily move toward NG911 architectures. A typical multi-node model includes a host which houses the system core. Depending on the size of the system, there may be multiple hosts. The remote sites can be as many as the core system and network can support. Currently, there are five counties in Washington which have deployed or are preparing to deploy a multi-node platform. They will share a common PSAP enterprise network, and a secondary network connectivity for redundancy, which may also host CAD and call processing equipment. Additionally, radio technicians, system administrators, dispatchers and supervisors can assist each agency due to the common technology, applications, appliances and configuration of the hosted solutions and shared technology platforms deployed among and between the PSAPs, however each configuration can be unique to each PSAP.



2015 – Following a failed attempt to establish a geo-diverse, multi-node system in 2012, Thurston County (TComm) and Clark County (Clark Regional Emergency Services Agency - CRESA) partnered with the State 911 office and developed a prototype pilot project in 2014. In May 2015, they went live on the first multi-node (dual host/remote) solution in Washington.

2017 – In February 2017, Wahkiakum County became the first remote PSAP off the CRESA/TComm multi-node core.

2021 – In January 2021, RiverCom is scheduled to join the CRESA/TComm multi-node as a remote PSAP, becoming the first regionalized center and the first center on the east side of the mountains to function on a multi-node solution.

2022 – By December 2022, the King County E911 Program anticipates completion of a multi-node platform project serving the 12 PSAPs in King County. This system will have multiple redundant cores and may have a geo-diverse core located outside of King County.



## Multi-Node (Host/Remote) Highlights

**Funding:** Utilization of all local funds, state and local excise taxes.

**Challenges:** Requires multiple customers, vendors, and PSAPs to collaborate and address competing interests. Additionally, aligning current equipment refresh cycles during the implementation with the necessity to move as a single unit no matter what direction.

**Efficiencies:** Interoperability is increased, network and system redundancy, supporting multiple locations without degradation of service. Cost savings include reduced capital costs and on-going maintenance. Providing systematic maintenance, changes and adding applications is streamlined, timely and with cross trained staff.

**Key message:** Diverse vendors and customers can accomplish a task of this magnitude given enough time, support and resources. The flexibility of a multi-node allows diverse users autonomy, reduced capital cost, use of other common platforms (CAD, audio recorders, etc.) and increased NG911 capabilities.

Advantages	Disadvantages
The design can be a disaster recovery design, allowing for primary PSAP personnel to easily move to an alternate PSAP and continue operations if geographically feasible.	Difficult to implement and support if a common funding model is not established to share implementation and on-going support costs.
Local operational control, management and governance are maintained by each PSAP agency.	Regional 911 Authority requires additional cooperation and trust among the agencies to manage global and agency configurations.

*Table 8: Multi-Node (Host & Remote)*



## 5.6 VIRTUAL MODELS

A virtual PSAP model<sup>29</sup> requires shared infrastructure. The PSAP call handling equipment can be local or reside at a data center or remote site, even from someone’s home. An ESInet provides transport for the calls to be routed to numerous PSAPs or locations. Virtual environments can enable the use of PSAP [Shared Systems](#) such as CAD, Automatic Call Distribution (ACD), Management Information System (MIS), and mapping.

Kitsap 911 created a virtual call taking and dispatching system to address the needs presented with Covid-19. This process included a proof of concept using its administrative phone system to route and answer 911 calls. While data was sacrificed, the test was successful. Two weeks later, Kitsap 911 was able to successfully process 911 calls remotely, entering the information in a CAD system and dispatching the appropriate units, all outside the 911 center. This provided an opportunity to keep staff safe and distant from each other while performing the normal functions of a PSAP.

### Virtual PSAP Highlights

**Funding:** Utilization of all local and state excise tax, local sales and use tax.

**Challenges:** Loss of automatic number and location data

**Efficiencies:** PSAP staff can respond quickly to activity surges, support disaster recovery and balance call volume between different sites.

**Key message:** Having the technology to develop an off the shelf solution is critical to address the ever-changing needs of a PSAP, especially in such uncertain times.

Advantages	Disadvantages
The design can be a disaster recovery design, allowing for primary PSAP personnel to easily move to a sister PSAP and continue operations if geographically feasible.	Difficult to implement and support if a common funding model is not established to share implementation and on-going support costs.
Decreased computer hardware capital, support and maintenance costs.	Increased cost and dependency on IP network.

Table 9: Virtual Model

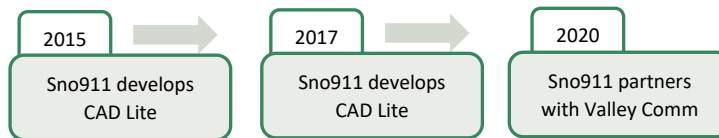
<sup>29</sup> Current examples also include State of Maine 9-1-1 Program and Palm Beach County, Florida.

## 5.7 SHARED SYSTEMS AND RESOURCES

### 5.7.1 Shared Systems

The technology landscape is rapidly changing to support the shift to shared systems. The rise of cloud-based computing is making this shift both easier and more secure so that public safety agencies can be confident the choice to move to shared technology is supportable on many fronts. Below are some of the technologies that offer shared systems:

- 911 CPE – Shared CPE can support virtually any PSAP requirement. PSAPs can continue to operate autonomously, while benefitting from reduced capital cost and increased NG-911 capabilities.
- Computer Aided Dispatch (CAD) – The ability exists to support everything from the smallest agency up to full state-wide deployments. Systems can be multi-disciplinary and support law enforcement, fire and medical dispatch.
- Public Safety Radio Systems – Modern radio systems are multi-disciplinary and able to support multiple jurisdictions.
- Map System – PSAP mapping is shifting to cloud-based technology, which enables multiple PSAPs to share a system and allows for increased situational awareness and greater access to additional data elements.



2015 – Sno911 developed a web-hosted basic CAD system.

2017 – Sno911 began development of a proof of concept to take advantage of the power of the ESInet and Sno911's CAD-Lite platform. The concept allows for staff to evacuate their 911 center and the partner PSAP will receive 911 calls and enter them into CAD-Lite, while staff are in route to their backup location. This ensures 911 calls don't go unanswered and first responders are able to see and self-dispatch to calls in their area until 911 staff are in place at their back-up location.

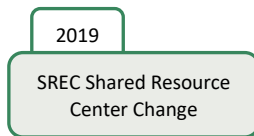
2020 – Sno911 and Valley Comm partner to further develop the proof of concept for CAD-Lite

2021 – Planning stages should be complete allowing for simulations to begin and development of a live exercise to reroute 10-digit non-emergency calls.

Note: Highlights, advantages or disadvantages are not yet available in this section due to the in-progress work of this solution.

### 5.7.2 Shared Resources - Shared Services Center<sup>30</sup>

A Shared Service Center brings existing PSAPs together in one facility and may share management and resources. A formal relationship is established through inter-local agreements, setting the entry and exit of agencies and the operational environment involved under the governing PSAP agency or authority. The public safety agencies themselves (law enforcement, fire, EMS) could operate as a combined entity, or independent separate entities. This model provides services for all public safety call intake and dispatching within the assigned area. Staff may utilize common technology, as well as operational policies under a single form of governance. One operating environment for the consolidated 911 operations can optimize the use of CAD, radio, mobile data, audio recorders, mapping, GIS, 911 CPE, and telephony and database systems.



All Spokane County 911 emergency calls are answered at the Spokane Regional Emergency Communications Center (SREC) except for Fairchild Airforce Base.

Prior to 2019: All calls were answered and triaged by SREC staff and then transferred to different agencies in the same building but governed by different authorities.

2019: A partial integration occurred combining call taking and dispatch for several agencies, under one governance structure. SREC continues to be a Shared Resource Center as there are still independent agencies working in the same facility.

Advantages	Disadvantages
Provides the ability to share the benefits of joint support services such as janitorial, food services, office supplies and the support infrastructure.	Combining multiple agencies, which utilize different and incompatible computer systems into a multi-jurisdictional, multi-disciplinary, multi-agency, high-volume center can be challenging to implement and support.
Takes advantage of shared electrical, heating-ventilation-air conditioning (HVAC), and emergency power subsystems.	Maintaining numerous Service Level Agreements (SLAs) for specific PSAPs may be challenging.
Employees can be cross-trained, and the schedules can be combined for added personnel efficiency.	Emergency communications could be interrupted for all the jurisdictions involved if proper attention is not given to redundancy and fallback planning
Creates an environment that is more flexible, and amplifies the commonalities in law enforcement, fire and medical dispatch	Bigger is not necessarily better if neither efficiency in service delivery nor economies of scale would result from the consolidation of services

Table 10: Shared Services Center

<sup>30</sup> Examples include Bexar Metro 9-1-1 District, Licking County Regional Communications Center, Ohio, and Bergen County Public Safety Operations, New Jersey.

### 5.7.3 Shared Resources - Centralized Call Taking Center<sup>31</sup>

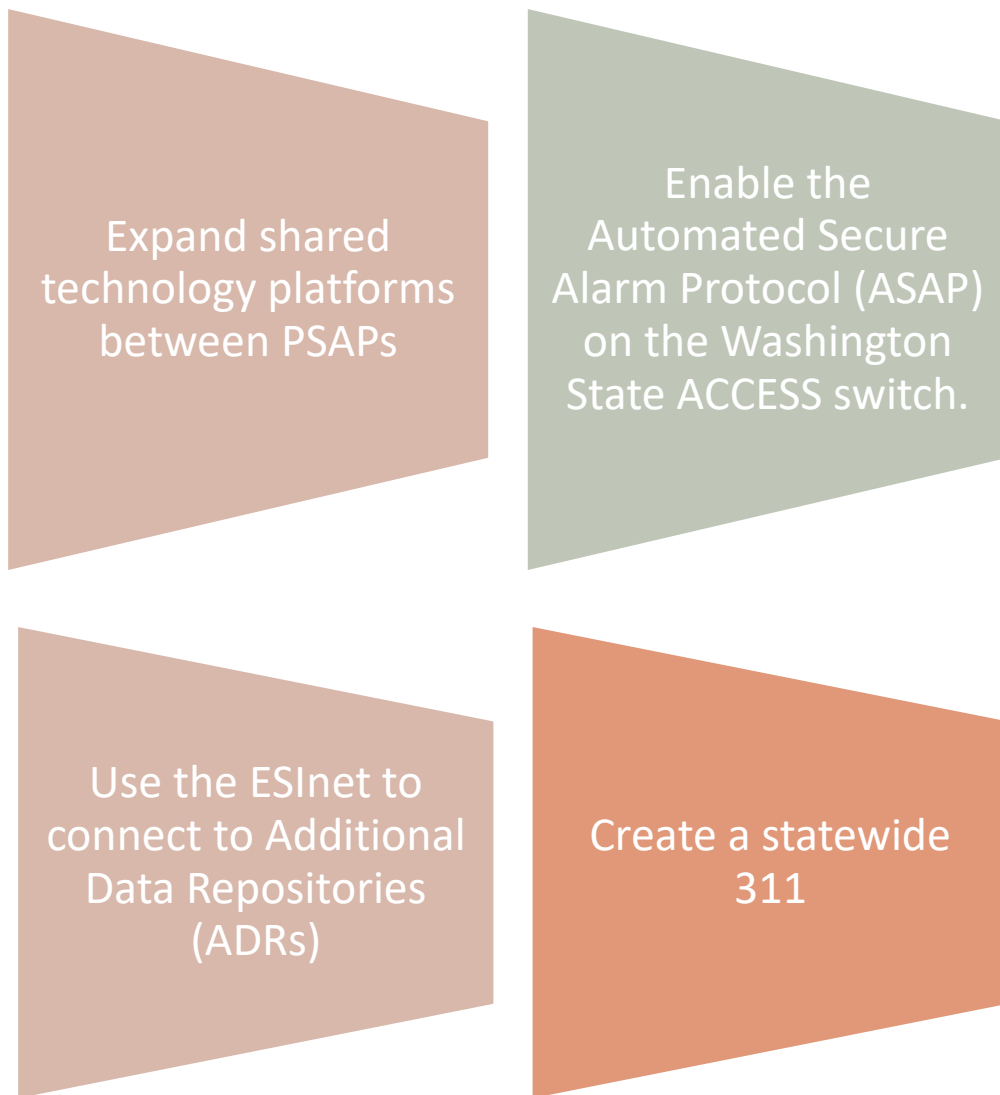
911 calls, which would normally be directed to individual PSAPs, are routed to a centralized call taking facility. Call takers perform immediate analysis and triage, then transfer the call to the appropriate law enforcement, or fire and EMS agency of the jurisdictions involved for dispatch. If there are shared systems available as described above, the transfers would be greatly reduced as the call data would be available at the dispatch center while the call is processed, improving the customer service experience. The dispatch agencies can either share the same facility or be located at other geographic locations with PSAP functions remaining the same. This model requires a well-planned governance structure as well as coordination and sharing of resources, which can be a challenge.

Advantages	Disadvantages
A large staffing base ensures 911 calls are answered in a timely manner, potentially increasing customer service levels.	Coming to a common ground on standard operating procedures can be difficult.
Regional call routing is simplified which results in fewer call transfers to the correct PSAP.	Possible duplication of functions and call processing interview with increased call transfers.
Mitigates localized spikes in 911 call volume through improved utilization of available call takers. This reduces the queueing of calls at one agency while call takers are idle at a neighboring PSAP.	For very large call taking centers, appropriate geographic and tribal knowledge may not be available.

Table 11: Centralized Call Taking

<sup>31</sup> Examples include Honolulu Police Dept. and Harris County 9-1-1 District, Texas.

## 5.8 EFFICIENCY RECOMMENDATIONS



**Key Recommendation:** *Expand the use of shared technology platforms between PSAPs, creating economies of scale.*

Identify opportunities for PSAPs to share platforms such as telephony equipment and computer aided dispatch (CAD systems). A centralized authority, as recommended in Section [2.5.1](#), would assist with the consolidation of equipment across multiple PSAPs to decrease the costs of equipment and systems.

**Recommendation:** Enable the Automated Secure Alarm Protocol (ASAP) on the Washington State Central Computerized Enforcement Service System (ACCESS) switch.

ASAP is a national service that allows CAD systems at the PSAP to process data transported from alarm monitoring companies through the ACCESS switch. ASAP reduces alarm call taking time and call taker workload. The protocol replaces 911 PSTs

from having to answer alarm lines and processing requests as the alarm information is automatically input into the CAD system.

Recommendation: Use the ESInet to connect to Additional Data Repositories (ADRs).

Additional Data Repositories (ADRs) are third party databases that hold additional data about a caller, a call, or a location. An example is a company which supplies PSAPs device-based hybrid locations of cell phones when 911 is called. The state could use this precise location information to route wireless 911 calls where the current network technology is insufficient. Currently, this information is available to the PSAP via a web page or through over-the-top application interfaces to the call takers at the PSAP.

Recommendation: Create a statewide 311 service<sup>32</sup>.

The addition of statewide 311 non-emergency service may effectively augment 911 efficiencies. Having telephone companies program their equipment to route 311 calls to the ESInet is a straightforward exercise. Implementation of 311 itself is outside the scope of this report.

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<sup>32</sup> A special telephone number service that provides access to non-emergency municipal/regional services.

## 6.0 RECOMMENDATIONS - SUMMARY

The following includes the key recommendations identified in the Executive Summary as well as others presented throughout the document. There are some recommendations that overlap between sections due to their impact in that section.

### GOVERNANCE

Key Recommendation: *Enhance the governance role of the State 911 Coordination Office (SECO) to develop statewide standards for the 911 system and provide necessary support to county and local 911 operations while maintaining local operational authority of 911 services.*

Enact legislation that enhances the role of the SECO to include the authority to:

- a. Facilitate the coordination of interoperable 911 service networks statewide and to support those state-level systems;
- b. Develop standards for the components of the 911 systems including security, equipment standards and purchasing options;
- c. Assist local authorities with staffing issues, recruitment, training and certification standards; and
- d. Develop statewide purchasing power.

Recommendation: Change the current 911 fee structure for wireline carriers

Change the current structure that pays wireline carriers from the 911 excise tax to deliver 911 calls to the ESInet or an ESInet transport provider. Instead, require them to bear the cost like wireless and VoIP providers.

### OPERATIONS

Key Recommendation: *Create a certification and reclassification for Public Safety Telecommunicators.*

Staffing and retention - create statewide certification for Public Safety Telecommunicators that includes mandatory and standardized training. Reclassify PSTs to a Public Safety First Responder instead of clerical<sup>33</sup>. Provide the professional recognition for the professional job they do. Allow efforts to be considered for a lower retirement age for those tenured employees who can no longer perform the functions due to age, similar to law enforcement and fire personnel

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<sup>33</sup> <https://www.apointnl.org/government-relations/topics/soc-revision/aligning-job-descriptions-with-protective-nature-of-work>

## FUNDING

Key Recommendation: *Develop a sustainable funding plan for all elements of emergency communications, including dispatch.*

The greatest challenge to the PSAPs today is the need for dedicated and sustainable funding to support their full responsibility which includes dispatching and monitoring of emergency responders. By state statute, the current 911 excise tax is restricted to just the call answering portion of this process which is not able to meet the needs of today and clearly won't be able to support the evolving technology needs and costs of tomorrow. A funding mechanism needs to be developed that can support each county's needs for all PSAP functions. Therefore, it is recommended the State 911 Advisory Committee (AC) develop a task force to include 911 Coordinators, emergency service providers, 911 service providers and other key stakeholders to further explore and develop a funding plan, to be submitted to the legislature, with options that will support the 911 system from receipt of 911 calls to dispatching and monitoring emergency responders.

Key Recommendation: *Change the E911 account to a non-appropriated account to allow the E911 program to more easily access and utilize funds in this account for intended purpose.*

Since the E911 account requires a legislative appropriation, the E911 program does not have a way to request additional expenditure authority in the case of unexpected equipment failures or program emergencies. Revenues received into the E911 account are required to be spent on the E911 program, and as those revenues increase or decrease the program should have a more flexible way to pass surplus revenue in the account to counties to address their programmatic or equipment needs.

Recommendation: Change RCW to collect 911 tax from new technologies.

Change current RCWs to ensure new technologies that access 911 pay the current tax.

## TECHNOLOGY

Key Recommendation: *Expand the use of shared technology platforms between PSAPs, creating economies of scale.*

Identify opportunities for PSAPs to share platforms such as telephony equipment and CAD systems. A centralized authority, as recommended in Section [2.5.1](#), would assist with the consolidation of equipment across multiple PSAPs to decrease the costs of equipment and systems.

Recommendation: Enable the Automated Secure Alarm Protocol (ASAP) on the Washington Central Computerized Enforcement Service System (ACCESS) switch.

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reduces alarm call taking time and call taker workload. The protocol replaces 911 call takers from having to answer alarm lines and processing requests as the alarm information is automatically input into the CAD system.

Recommendation: Use the ESInet to connect to Additional Data Repositories (ADRs).

Additional Data Repositories (ADRs) are third party databases that hold additional data about a caller, a call, or a location. An example is a company which supplies PSAPs device-based hybrid locations of cell phones when 911 is called. The state could use this precise location information to route wireless 911 calls where the current network technology is insufficient. Currently, this information is available to the PSAP via a web page or through over-the-top application interfaces to the call takers at the PSAP.

Recommendation: Create a statewide 311 service<sup>34</sup>.

The addition of statewide 311 non-emergency service may effectively augment 911 efficiencies. Having telephone companies program its equipment to route 311 calls to the ESInet is a straightforward exercise. Implementation of 311 is outside the scope of this report.

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<sup>34</sup> A special telephone number service that provides access to non-emergency municipal/regional services.

## 7.0 CONCLUSION - FINAL KEY INSIGHTS

The goal of this report is to respond to the legislative proviso, but also to show a broader view of the good work being done in the 911 industry in Washington and the continuing needs for funding and legislative support. Washington continues to be a national leader in the development and deployment of NG911 technologies. This comes with an expensive price tag and with community expectations that often exceed the current technological and financial abilities.

As described in the Preliminary Summary submitted August 31, 2020, the data and final analysis confirmed the preliminary findings. Costs to operate and maintain 911 significantly exceeds the dedicated 911 excise tax revenue by 70 percent. These costs include the state ESInet, equipment associated to the receipt, delivery, processing, and recording of 911 calls, personnel, facilities, administrative, and contractual costs. Noted throughout this report, current funding does not include dispatch services and this needs to be addressed in future funding models to support the full PSAP responsibility of call receipt to dispatch and monitoring of law enforcement, fire and EMS responders.

User agency fees, sales and use tax for emergency communication systems and facilities, grants and other local funding is used to bridge the gap between the 911 excise tax and the actual costs of operating a 911 PSAP. These other funding mechanisms are often fragile and subject to the whims of the economy, whereas the 911 excise tax has shown to be consistent and stable over time. The deployment of future technology will be unattainable without significant increases in funding.

Washington has been very progressive in creating cost-savings and efficiencies and working within current funding limits. Dedicated and creative teams deployed ESInet II, developed pilot projects with subsequent deployments of equipment consolidation and regionalization efforts, introduced cloud-based systems, worked towards standardization of buying power for equipment and services, and cultivated strong partnerships and governance models. Even as Covid-19 forced social distancing impacts on the 911 workplace, the teams continued to create alternative ways to safely perform their work by creating off site work processes, and virtualization for communication, meetings, and training.

There is universal agreement that reducing inefficiencies develops cost savings. This is specifically true with regulatory changes where updates and modifications to current RCW, WAC and UTC rulings are needed. Wireline carrier costs need to be funded by the carriers and not the 911 excise tax.

Focus needs to include the role of the Public Safety Telecommunicator and the toll this work has on them individually. Technology can make their job more efficient by providing more information. It also makes it more complex. Recognition through certification and classification changes from clerical staff to first responder is long overdue and needs to be addressed.

The Public Safety 911 community members are responsible stewards and will continue to work towards the highest standards of call delivery and work processes. They seek the Legislature's support in these noble efforts.

## 8.0 GLOSSARY

**3-1-1** – a special telephone number supported by many communities that provides access to non-emergency municipal services. References in this document are 311.

**9-1-1** – Nationwide emergency number used to access law enforcement, fire and EMS. References in this document are “911”.

- **Next Generation 911 (NG911)** - An Internet Protocol (IP)-based system comprised of managed Emergency Services IP networks (ESInet), functional elements (applications), and databases that replicate traditional E911 features and functions and provides additional capabilities. NG911 is designed to provide access to emergency services from all connected communications sources and provide multimedia data capabilities for PSAPs and other emergency service organizations. References in this document are NG911.
- **Enhanced 911 (E911)** – A service that automatically displays the telephone number and physical location of the 911 caller. References in this document are E911.

**911 Call Processing Equipment (CPE)** - Equipment concerned with the details of the management of calls. It handles all communication from the caller. It includes the interfaces, devices and applications utilized by the call takers to handle the call.

**911 Coordinator** – A county designated position responsible for handling various duties related to the coordination of 911 services within their county.

**ACCESS – A Central Computerized Enforcement Service System** – used by law enforcement to connect to various State and National databases that house vehicle, person and property information and criminal history.

**Automatic Call Distribution (ACD)** – the automatic routing of 911 calls to the most appropriate PSAP and Public Safety Telecommunicator based on appropriate availability of that resource.

**Additional Data Repositories (ADR)** – Third party databases that hold additional data about a caller, a call, or a location accessible by PSAPs.

**Alternate Public Safety Answering Point (APSAP)**, a backup location capable of receiving 911 calls and processing those calls when the primary PSAP is incapable of doing so.

**Association of Public-Safety Communications Officials (APCO)** – Professional organization that provides complete public safety communications expertise, professional development, technical assistance, advocacy and outreach.

**Automated Secure Alarm Protocol (ASAP)**– a national service that allows CAD systems at the PSAP to process data transported from alarm monitoring companies through the ACCESS switch.

**Call Receiver/Call Taker** - see Public Safety Telecommunicator (PST).

**Communications Officer/Specialist** – see Public Safety Telecommunicator (PST).

**Computer Aided Dispatch (CAD)** - computer-based system, which aids PSAP Telecommunicators by automating selected dispatching and record-keeping activities.

**Consolidation** – The combining of multiple agency 911 PSAPs within a county into a single unified center.

**Customer Premise Equipment (CPE)** – A telephone system capable of receiving and processing NG911 telephony and data.

**Dispatcher** – see Public Safety Telecommunicator (PST)

**Emergency Communications Center (ECC)** - see (PSAP)

**Emergency Medical Dispatch (EMD)** – Guidelines or protocols used to triage medical calls and to provide appropriate pre-arrival, life-saving instruction to the caller.

**ESInet - Emergency Services Internet Protocol Network**, a managed IP network that is used for emergency services communications, and which can be shared by all public safety agencies. It provides the IP transport infrastructure upon which independent application platforms and core services can be deployed, including, but not restricted to, those necessary for providing NG911 services. An ESInet may be constructed from a mix of dedicated and shared facilities and may be interconnected at local, regional, state, federal, national and international levels to form an IP-based inter-network (network of networks). The term ESInet designates the network, not the services that ride on the network.

**Fund Diversion**– A partial or wholesale diversion of dedicated 911 funding used for other non-911 purposes.

**Geographical Information Systems (GIS)** – A framework for gathering, managing and analyzing geographical and location data.

**GEO-Spatial Routing** – 911 Call routing is a point-in-polygon intersection function. The point is the caller location with either a physical address or coordinates, that point is located within a polygon that defines the appropriate emergency response provider and PSAP.

**Internet Protocol (IP)** - the method by which data is sent from one computer to another on the Internet or other networks.

**Local Exchange Carrier** - A Telecommunications Carrier (TC) under the state/local Public Utilities Act that provides local exchange telecommunications services. Also known as:

- Incumbent Local Exchange Carriers (ILECs)
- Alternate Local Exchange Carriers (ALECs)
- Competitive Local Exchange Carriers (CLECs)
- Local Service Providers (LSPs)
- Certified Telecommunications Utility (CTU)
- Competitive Local Provider (CLP)
- Originating Service Providers (OSPs)

**Logging Recorder** - A device that records, stores, and is capable of playing back all communication media within the domain to which it is assigned. Media can include but is not limited to voice, radio, text and network elements involved with routing a 911 call. Logging recorders should have the capability to simultaneously record from several sources.

**Map System** – The part of the 911 system that displays emergency event location and calling device location information on a map.

**MAYDAY** – In fire service, a radio call indicating imminent danger and need of immediate rescue.

**National Emergency Number Association (NENA)** – Professional organization solely focused on 911 policy, technology, operations and education.

**National Fire Protection Association (NFPA)**– International non-profit organization devoted to eliminating death, injury, property and economic loss due to fire, electrical and related hazards.

**Public Safety Answering Point (PSAP)** - an entity responsible for receiving 911 calls and processing those calls according to a specific operational policy. In Washington State, each county generally has one PSAP, although counties such as King and Pierce have multiple PSAPs.

**Public Safety Radio System** - Land mobile radio communication system providing voice communication and limited data capabilities, primarily serving law enforcement, fire, and EMS personnel in the performance of their emergency response duties.

**Public Safety Telecommunicator (PST)** - (also identified as Call Taker, Communications Officer, or Dispatcher) – An emergency response coordination professional trained to receive, assess, and prioritize emergency requests for assistance, including, but not limited to:

- Determining the location of the emergency being reported
- Determining the appropriate law enforcement, fire, emergency medical, or combination of those emergency services to respond to the emergency
- Coordinating the implementation of that emergency response to the location of the emergency
- Monitoring and processing requests for assistance from emergency responders

**QA/QI – Quality Assurance/Quality Improvement** – a program to measure compliance against necessary standards.

**Radio over Internet Protocol (RoIP)** – Integrates and augments two-way radio communications technology with VoIP technology.

**Records Management System (RMS)** - The management of records for an organization throughout the records-life cycle. The activities in this management include the systematic and efficient control of the creation, maintenance, and destruction of the records along with the business transactions associated with them. Considered a key component of operational efficiency, record management adds more value to organization's information assets.

**Regionalization** – The consolidation of multiple PSAPs from more than one county (or State) into a single unified PSAP.

**State E911 Coordination Office (SECO)** – Under the Department of the Military, Emergency Management Division, and is responsible for coordinating, facilitating the implementation and operation of E911 emergency communications throughout the State.

**Session Initiation Protocol (SIP)** - A protocol specified by the IETF (RFC3261) that defines a method for establishing multimedia sessions over the Internet. Used as the call signaling protocol in VoIP, NENA i2 and NENA i3.

**Shared Services Center** – brings existing PSAPs together into a single facility while retaining their separate autonomy.

#### **State Assistance Contracts**

- **Basic Service Operating** contracts consist of statewide dialing (services) that benefit all counties and WSP Communications, basic services and capital items listed in WAC 118-66-050 and defined in SECO policy.
- **Coordinator Professional Development** contracts consist of only statewide services that benefit all counties and WSP Communications and do not require local revenue to be expended prior to reimbursement.

**Statewide Services** – Those 911 services, connectivity, ESInet and 911 Coordinator expense reimbursements that are applicable to all PSAPs and the State 911 network.

**Telematics** – a combination of usually vehicular data (speed, direction of travel, change in velocity, air-bag deployment, location, etc.) made available to a PSAP in real time directly from the vehicle. Can include other data sources, sensors and instrumentation presented directly to a PSAP.

**Utilities and Transportation Commission (Washington UTC)** – The State Commission responsible for regulating Common Carriers and Telecommunications.

**Voice over Internet Protocol (VoIP)** – The transmission or transfer of both multimedia and voice content over various internet networks.

**Wireless Service Provider (WSP)** - Cellular, satellite or other radio-based telephony or data transport commercial entity.

## 9.0 STATUTORY CITATION/SESSION LAW FOR REQUIRED REPORT

The Washington Military Department submits the attached report to the Legislature to fulfill the requirements of:

Section 145, Chapter 6, Laws of 2019, Regular Session (Engrossed Substitute House Bill 1109) to prepare a report on the 911 system by October 1, 2020 that must include:

- (a) The actual cost per fiscal year for the state, including all political subdivisions, to operate and maintain the 911 system including, but not limited to, the ESInet, call handling equipment, personnel costs, facility costs, contractual costs, administrative costs, and legal fees.
- (b) The difference between the actual state and local costs and current state and local 911 funding.
- (c) Potential cost-savings and efficiencies through the consolidation of equipment, regionalization of services or merging of facilities, positive and negative impacts on the public, legal or contractual restrictions, and appropriate actions to alleviate these constraints.

## 10.0 APPENDICES

### Appendix 1 – Governance – 911 County Coordinator List

COUNTY	TITLE	FIRST NAME	LAST NAME	EMAIL
Adams	Ms.	Angie	Fode	<a href="mailto:angief@co.adams.wa.us">angief@co.adams.wa.us</a>
Asotin	Mr.	Mark	Janowski	<a href="mailto:mjanowski@co.asotin.wa.us">mjanowski@co.asotin.wa.us</a>
Benton	Ms.	Kim	Lettrick	<a href="mailto:k.lettrick@bces.wa.gov">k.lettrick@bces.wa.gov</a>
Chelan	Ms.	Misty	Viebrock	<a href="mailto:mviebrock@rivercom911.org">mviebrock@rivercom911.org</a>
Clallam	Ms.	Karl	Hatton	<a href="mailto:khatton@cityofpa.us">khatton@cityofpa.us</a>
Clark	Mr.	Dave	Fuller	<a href="mailto:dave.fuller@clark.wa.gov">dave.fuller@clark.wa.gov</a>
Columbia	Mr.	Ashley	Strickland	<a href="mailto:ashley_strickland@co.columbia.wa.us">ashley_strickland@co.columbia.wa.us</a>
Cowlitz	Ms.	Deanna	Wells	<a href="mailto:wellsd@co.cowlitz.wa.us">wellsd@co.cowlitz.wa.us</a>
Douglas	Ms.	Molly	Elliott	<a href="mailto:melliott@rivercom911.org">melliott@rivercom911.org</a>
Ferry	Ms.	Terri	Sebree	<a href="mailto:e911coord@co.ferry.wa.us">e911coord@co.ferry.wa.us</a>
Franklin	Mr.	Rick	Rochleau	<a href="mailto:rrochleau@co.franklin.wa.us">rrochleau@co.franklin.wa.us</a>
Garfield	Ms.	Tina	Meier	<a href="mailto:tmeier@co.garfield.wa.us">tmeier@co.garfield.wa.us</a>
Grant	Mr.	DT	Donaldson	<a href="mailto:d.donaldson@macc911.org">d.donaldson@macc911.org</a>
Grays Harbor	Ms.	Brenda	Cantu	<a href="mailto:bcantu@gh911.org">bcantu@gh911.org</a>
Island	Ms.	Lisa	Ernst	<a href="mailto:lisa@icom911.org">lisa@icom911.org</a>
Jefferson	Mr.	Ted	Krysinski	<a href="mailto:tedkrysinski@jcpsn.us">tedkrysinski@jcpsn.us</a>
King	Ms.	Deb	Flewelling	<a href="mailto:deb.flewelling@kingcounty.gov">deb.flewelling@kingcounty.gov</a>
King	Mr.	Ben	Breier	<a href="mailto:bbreier@kingcounty.gov">bbreier@kingcounty.gov</a>
Kitsap	Mr.	Richard	Kirton	<a href="mailto:rkirton@kitsap911.org">rkirton@kitsap911.org</a>
Kittitas	Mr.	George	Long	<a href="mailto:long@kittcom.org">long@kittcom.org</a>
Klickitat	Ms.	Julie	Buck	<a href="mailto:julieb@klickitatcounty.org">julieb@klickitatcounty.org</a>
Lewis	Mr.	Scott	Smitherman	<a href="mailto:scott.smitherman@lewiscountywa.gov">scott.smitherman@lewiscountywa.gov</a>
Lincoln	Ms.	Jo	Borden	<a href="mailto:jborden@co.lincoln.wa.us">jborden@co.lincoln.wa.us</a>
Mason	Mr.	Mike	Rawlings	<a href="mailto:mrawlings@macecom.org">mrawlings@macecom.org</a>
Okanogan	Mr.	Mike	Worden	<a href="mailto:mworden@co.okanogan.wa.us">mworden@co.okanogan.wa.us</a>
Pacific	Mr.	Ed	Heffernan	<a href="mailto:eheffernan@co.pacific.wa.us">eheffernan@co.pacific.wa.us</a>
Pend Oreille	Mr.	Steve	West	<a href="mailto:swest@pendoreille.org">swest@pendoreille.org</a>
Pierce	Mr.	Jonathan	Brock	<a href="mailto:jonathan.brock@piercecounywa.gov">jonathan.brock@piercecounywa.gov</a>
San Juan	Mr.	Dave	Halloran	<a href="mailto:daveh@sanjuanco.com">daveh@sanjuanco.com</a>
Skagit	Ms.	Helen	Rasmussen	<a href="mailto:helend@co.skagit.wa.us">helend@co.skagit.wa.us</a>
Skamania	Mr.	Jason	Fritz	<a href="mailto:jasonf@co.skamania.wa.us">jasonf@co.skamania.wa.us</a>
Snohomish	Ms.	Vicki	Thoroughman	<a href="mailto:vicki.thoroughman@snoco.org">vicki.thoroughman@snoco.org</a>
Spokane	Ms.	Kim	Arredondo	<a href="mailto:kim.arredondo@SREC911.org">kim.arredondo@SREC911.org</a>

<b>Stevens</b>	Mr.	Rick	Anderson	<a href="mailto:randerson@stevenscountywa.gov">randerson@stevenscountywa.gov</a>
<b>Thurston</b>	Mr.	Keith	Flewelling	<a href="mailto:keith.flewelling@tcomm911.org">keith.flewelling@tcomm911.org</a>
<b>Wahkiakum</b>	Ms.	Joannie	Kuhlmeyer	<a href="mailto:kuhlmeyerj@co.wahkiakum.wa.us">kuhlmeyerj@co.wahkiakum.wa.us</a>
<b>Walla Walla</b>	Mr.	Steven	Ruley	<a href="mailto:sruley@wallawallawa.gov">sruley@wallawallawa.gov</a>
<b>Whatcom</b>	Mr.	Greg	Erickson	<a href="mailto:gerickson@cob.org">gerickson@cob.org</a>
<b>Whitman</b>	Ms.	Wendy	Berrett	<a href="mailto:wberrett@whitcom.org">wberrett@whitcom.org</a>
<b>WSP</b>	Ms.	Vanessa	Barnes	<a href="mailto:vanessa.barnes@wsp.wa.gov">vanessa.barnes@wsp.wa.gov</a>
<b>Yakima</b>	Mr.	Brad	Coughenour	<a href="mailto:brad.coughenour@yakimawa.gov">brad.coughenour@yakimawa.gov</a>



## Appendix 2 - Governance – National 911 Governance Structures

This table explains the various reported “governance” structures:

Category	Description	Characteristics
1	State-level 911 authority that owns or operates a single statewide system with a single, state-operated PSAP	Washington, DC, is the only independent entity and is counted as a “state” for the purpose of categorization. In New Hampshire and Rhode Island, the 911 authority is part of another state agency.
2	State-level 911 authority that owns/operates a single statewide system, and funds and operationally supports PSAPs	Vermont operates independently. In Connecticut, Delaware <sup>35</sup> , Maine, Massachusetts and New Jersey, the 911 authority is part of another state agency.
3	State-level 911 authority with statewide geographic planning/coordination/funding responsibility for full scope of 911	There are 27 state 911 programs in this category. For most states in this category, the 911 function is a full-fledged organizational component of another state agency and works within the context and authority of that agency. However, a few state programs are simply attached to another state agency for administrative support, and otherwise operate independently. In some cases, there is also a separate board or commission that sets policy and exerts decision authority. The states are Alaska, Alabama, Arizona, Arkansas, California, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Kansas, Maryland, Michigan, Minnesota, Mississippi, Montana, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Utah and Washington.
4	State-level 911 authority with less than statewide geographic planning/coordination/funding responsibility for full scope of 911	Texas is the only state in this category and operates as an independent state agency. In those parts of Texas outside of the state program’s geographic responsibility, regional and/or local 911 authorities have independent responsibility.
5	State-level agency or board with statewide responsibility for a limited aspect of 911 (generally wireless)	The 911 programs in this category are Iowa, Kentucky, Nebraska, South Carolina, Virginia, and Wisconsin. All are part of a larger state agency.
6	Statewide 911 focus or coordination mechanism, but not part of a state agency	Two states fall into this category: North Dakota and Colorado.
7	No state-level 911 focus or coordination mechanism	Six states fall into this category: Louisiana, Missouri, Nevada, New York, West Virginia and Wyoming.

<sup>35</sup> Responsibility for 9-1-1 in Delaware is divided between an independent Board that provides oversight and funding for locally operated PSAPs; and the Department of Information and Technology, which is responsible for state technology procurements, including the 9-1-1 system.

## Appendix 3 - Governance – 911 Legislative and Regulation Links

1. General 911 Legislation: <http://mil.wa.gov/emergency-management-division/E911/laws-and-regulations>
2. Wireline: <http://mil.wa.gov/emergency-management-division/E911/laws-and-regulations>
3. Wireless: <http://mil.wa.gov/emergency-management-division/E911/laws-and-regulations>
4. VoIP: <http://mil.wa.gov/emergency-management-division/E911/laws-and-regulations>
5. Funding: <http://mil.wa.gov/emergency-management-division/E911/laws-and-regulations>
6. Multiline Telephone Systems (MLTS): <http://mil.wa.gov/emergency-management-division/E911/laws-and-regulations>

### Regulation Links

- Wireline: <http://mil.wa.gov/emergency-management-division/E911/laws-and-regulations>
- Wireless: <http://mil.wa.gov/emergency-management-division/E911/laws-and-regulations>
- VoIP: <http://mil.wa.gov/emergency-management-division/E911/laws-and-regulations>
- Funding: <http://mil.wa.gov/emergency-management-division/E911/laws-and-regulations>
- Multiline Telephone Systems (MLTS): <http://mil.wa.gov/emergency-management-division/E911/laws-and-regulations>
- Emergency Medical Services System:  
<http://www.doh.wa.gov/hsqa/emstrauma/publications.shtml>

## Appendix 4 – Financial - RCW Language

Expenses for the following wireline service components may be eligible for reimbursement from the state enhanced 9-1-1 account from funds generated under the state wireline/VoIP enhanced 9-1-1 account (RCW [82.14B.030](#) (5) and (7)) as statewide dialing items:

- Switching office enabling;
- Automatic number identification (ANI);
- Traffic studies between switching offices and the selective router;
- ALI/DMS service;
- Reverse ALI search capability.

Expenses for the following wireless components may be eligible for reimbursement from state enhanced 9-1-1 account funds generated under the state wireless enhanced 9-1-1 excise tax (RCW [82.14B.030](#)(6)) as statewide dialing items:

- Wireless Phase I E9-1-1 service components:
  - Phase I automatic location identification (ALI);
  - Phase I address;
  - Service control point Phase I capabilities;
  - Phase I ALI database;
  - Phase I interface to selective router;
  - Phase I interface to ALI database;
  - Phase I testing;
  - Phase I implementation plans;
  - Phase I implementation agreements;
  - Pseudo-ANI (P-ANI);
  - MSC Phase I software capabilities;
  - Traffic studies between the MSC and selective router;
  - Phase I ALI data circuits;
- Wireless E9-1-1 Phase II service components (including all Phase I components):
  - Location determination technology;
  - Phase II implementation plan;
  - Phase II testing;
  - MSC Phase II software capabilities;
  - Service control point Phase II capabilities; and
  - Mobile positioning center.

Expenses for the following components are shared with wireline/VoIP and wireless enhanced 9-1-1 services and may be eligible for reimbursement from state enhanced 9-1-1 account funds generated under the state wireline/VoIP enhanced 9-1-1 excise tax (RCW [82.14B.030](#) (5) and (7)) and from state enhanced 9-1-1 account funds generated under the statewide wireless enhanced 9-1-1 excise tax (RCW [82.14B.030](#)(6)):

- Statewide dialing items:
  - Coordinator professional development;
  - NG9-1-1 network;
  - 9-1-1 network equivalent (B.01/P.01 grade of service level required);
  - Selective routing;
  - Automatic location identification (ALI) database;

Traffic studies between selective router and PSAP;  
 Telecommunications service priority;  
 Language interpretive service;  
 Alternate routing and/or night service;  
 Customer premise equipment (CPE)/telephone system and maintenance;  
 TY required for compliance with the Americans with Disabilities Act (ADA);  
 ANI/ALI controllers and necessary interfaces to send data to other PSAP equipment;  
 ANI/ALI display equipment for primary PSAPs;  
 PSAP mapping and maintenance;  
 County 9-1-1 coordinator duties;  
 MSAG coordination and maintenance;  
 Mapping/GIS coordination and maintenance;  
 9-1-1 information technology services;  
 9-1-1 call receiver salaries and benefits;  
 9-1-1 public education coordination;  
 9-1-1 training coordination.  
 Basic service items:  
 Uninterruptible power supply (UPS) for PSAP enhanced 9-1-1 equipment and maintenance;  
 Route diversity between selective router and PSAP;  
 9-1-1 Coordinator training;  
 MSAG training;  
 Mapping/GIS training;  
 Information technology (IT) training;  
 Call receiver training;  
 E9-1-1 mapping administration;  
 Instant call check equipment and maintenance;  
 Mapping display for call answering positions that are ANI/ALI equipped;  
 9-1-1 Management information system;  
 Call detail recorder or printer and maintenance;  
 Headsets for 9-1-1 call receivers;  
 Enhanced 9-1-1 document destruction;  
 9-1-1 coordinator electronic mail.  
 Capital:  
 Logging recorder for 9-1-1 calls and maintenance;  
 Computer aided dispatch (CAD) system hardware and software and maintenance;  
 Auxiliary generator and generator maintenance to provide 9-1-1 eligible equipment/telephone services backup power;  
 Clock synchronizer and maintenance; and  
 Console furniture for 9-1-1 call receiving equipment and maintenance.

Within available funds and consistent with statutory and regulatory purposes and priorities, the state enhanced 9-1-1 coordinator (with the advice and assistance of the enhanced 9-1-1 advisory committee) has the discretion to allocate state enhanced 9-1-1 account funds to eligible entities as reimbursement for wireline/VoIP and wireless enhanced 9-1-1 eligible expenses.

Eligible expenses for wireline/VoIP components established in WAC 118-66-050(1) may only be eligible for reimbursement from state enhanced 9-1-1 account funds generated under the state wireline/VoIP enhanced 9-1-1 excise tax (RCW [82.14B.030](#) (5) and (7)). Such funds shall be allocated based on statutory and regulatory purposes and priorities and WAC [118-66-020](#).

Eligible expenses for wireless components established in WAC 118-66-050(2) may only be eligible for reimbursement from enhanced 9-1-1 account funds generated under the state wireless enhanced 9-1-1 excise tax (RCW [82.14B.030\(6\)](#)). Such funds shall be allocated based on statutory and regulatory purposes and priorities and WAC [118-66-020](#).

Eligible expenses for components established in WAC 118-66-050(3) may be eligible for reimbursement from state enhanced 9-1-1 account funds generated under the state wireline/VoIP enhanced 9-1-1 excise tax (RCW [82.14B.030](#) (5) and (7)) and state enhanced 9-1-1 account funds generated under the state wireless enhanced 9-1-1 excise tax (RCW [82.14B.030\(6\)](#)). (All shared components.) The amount allocated from each tax source will be based on an equitable distribution determined by the state E9-1-1 coordinator with the advice and assistance of the enhanced 9-1-1 advisory committee. Such funds shall be allocated based on statutory and regulatory purposes and priorities and WAC [118-66-020](#).

## Appendix 5 – Financial – Range of 911 User Fees

### Range of 911 User Fees

Exact amounts may be adjusted locally  
as of September 2020

State	Wireline	Wireless	VoIP
Alabama	\$1.75	\$1.75 \$1.75 Prepaid	1.75
Alaska	\$0.00 - \$2.00	\$0.00 - \$2.00	
Arizona	\$0.20	\$0.20 .80% of Sale - Prepaid	\$0.20
Arkansas	5% - 12% of Tariff Rates	\$0.65 \$0.65 Point of Sale -Prepaid	\$0.65
California	Three-fourths of 1% percent (.0075)	Three-fourths of 1% percent (.0075)	Three-fourths of 1% Percent (.0075)
Colorado	\$0.70 - \$3.00 (max)	\$0.70 - \$3.00 (max) 1.4% of Sales - Prepaid	\$0.70 - \$3.00 (max)
Connecticut	\$0.57	\$0.57 \$0.57 Point of Sale - Prepaid	\$0.57
Alaska	\$0.00 - \$2.00	\$0.00 - \$2.00	\$0.47
Delaware	\$0.60	\$0.60 \$0.60 Prepaid	\$0.60
District of Columbia	\$0.76 Wireline \$0.62 Centrex \$4.96 PBX Trunk	\$0.76 2.0% Point of Sale - Prepaid	\$0.76
Florida	\$0.40 (Max)	\$0.40 - \$0.44 \$0.40 Prepaid	\$0.40
Georgia	\$1.50	\$1.50 \$1.50 Prepaid	\$1.50
Hawaii	\$0.27	\$0.66	\$0.66
Idaho	\$1.00 - \$1.25 (max)	\$1.00 - \$1.25 (max) 2.5% of Sale - Prepaid	\$1.00 - \$1.25(max)
Illinois	\$1.50 \$5.00 City of Chicago	\$1.50 \$5.00 City of Chicago 9.0% of Sale City of Chicago – Prepaid 3% of Retail Sale - Prepaid	\$1.50 \$5.00 City of Chicago
Indiana	\$1.00	1.00 \$1.00 Point of Sale - Prepaid	\$1.00

Iowa	\$1.00 (Max)	\$1.00 \$0.51 Point of Sale - Prepaid	\$1.00
Kansas	\$0.53	\$0.53 1.06% of Retail Sale - Prepaid	\$0.53
Kentucky	\$0.32 - \$4.00	\$0.70 \$0.93 Point of Sale - Prepaid	\$0.32 - \$4.00
Louisiana	\$0.38 - \$1.25 Residential \$0.99 - \$6.00 Business	\$0.85 - \$1.25 4% of Retail Sale - Prepaid	\$0.38 - \$1.25
Maine	\$0.45	\$0.45 \$0.45 Point of Sale - Prepaid	\$0.45
Maryland	\$1.00	\$1.00 \$0.60 of Retail Sale- Prepaid	\$1.00
Massachusetts	\$1.00	\$1.00 \$1.00 Prepaid	\$1.00
Michigan	\$0.25 State Fee \$0.00 - \$3.00 by County	\$0.25 State Fee \$0.00 - \$3.00 by County 5% Point of Sale - Prepaid	\$0.2 State Fee \$0.00 - \$3.00 by County
Minnesota	\$0.95	\$0.95 \$0.95 Point of Sale - Prepaid	\$0.95
Mississippi	\$1.05 Res \$2.05 Commercial	\$1.00 \$1.00 Prepaid	\$1.00
Missouri	2% - 15% of Base Rate (45 Counties) 1/8% - 1% of Sales Tax (51 Counties) Unfunded- (19 Counties)	None	
Montana	\$1.00	\$1.00 \$1.00 Prepaid	\$1.00
Nebraska	\$0.50 - \$1.00	\$0.45 - \$0.70 1.1% of Retail Sale -Prepaid	
Nevada	Varies by Jurisdiction – Property tax and/or Surcharge	Must be equal to wireline Surcharge	
New Hampshire	\$0.75	\$0.75 \$0.75 Point of Sale - Prepaid	\$0.75
New Jersey	\$0.90	\$0.90	\$0.90
New Mexico	\$0.51	\$0.51 1.38% of Retail Sale - Prepaid	\$0.51
New York	\$0.35 - \$1.00	\$1.20 - \$1.50	\$0.35

North Carolina	\$0.65	\$0.65 \$0.65 Point of Sale - Prepaid	\$0.65
North Dakota	\$1.50 - \$2.00 (max)	\$1.50 - \$2.00 (max) 2.5% Point of Sale - Prepaid	\$1.50 - 2.00 (max)
Ohio	\$0.50 (Max) (Legally limited to a few Counties, no general surcharge.	\$0.25 0.5% Point of Sale - Prepaid	
Oklahoma	3-15% of Base Rate	\$0.75 (Approx. 61 Counties) \$0.75 Point of Sale - Prepaid	\$0.50
Oregon	\$0.75	\$0.75 \$0.75 Point of Sale - Prepaid	\$0.75
Pennsylvania	\$1.65	\$1.65 \$1.65 Point of Sale - Prepaid	\$1.65
Rhode Island	\$1.00	\$1.26 2.5% Point of Sale - Prepaid	\$1.26
South Carolina	\$0.45 - \$1.00	\$0.62 \$0.62 Prepaid	\$0.45 - \$1.00
South Dakota	\$1.25	\$1.25 2% Point of Sale - Prepaid	\$1.25
Tennessee	\$1.16	\$1.16 \$1.16 Point of Sale - Prepaid	\$1.16
Texas	\$0.50 State Program Fees Vary – District	\$0.50 State Program 2% of Sales - Prepaid	\$0.50 State Program Fees Vary - District
Utah	\$0.71 Local Fee plus \$0.09 State Fee	\$0.71 Local Fee plus \$0.09 State Fee 1.78% Point of Sale - Prepaid	\$0.71 Local Fee plus \$0.09 State Fee
Vermont	Universal Service Funding	Universal Service Funding 2% Point of Sale - Prepaid	
Virginia	\$0.75	\$0.75 \$0.50 Prepaid	\$0.75
Washington	\$0.25 Statewide \$0.70 by Counties	\$0.25 Statewide \$0.70 by Counties \$0.25 Statewide – Prepaid \$0.70 by Counties - Prepaid	\$0.25 Statewide \$0.70 by Counties
West Virginia	\$0.98 - \$6.40 by County	\$3.00 6% Point of Sale - Prepaid	\$0.98 - \$6.40 by County
Wisconsin	\$0.16 - \$0.43 (Max)	None	
Wyoming	\$0.25 - \$0.75	\$0.25 - \$0.75 1.5% Point of Sale - Prepaid	\$0.25 - \$0.75



Appendix 6 – Financial – Local State 911 Excise Tax Revenue

<b>FY18 Cost Analysis</b>	<b>LOCAL REVENUE REPORTED</b>				
	<i>Wireline</i>	<i>VoIP</i>	<i>Wireless</i>	<i>Prepaid Wireless</i>	<i>Total</i>
<b>Adams</b>	\$27,647.92	\$1,851.69	\$94,336.02	\$30,897.40	<b>\$154,733.03</b>
<b>Asotin</b>	\$22,611.89	\$14,737.35	\$105,904.25	\$40,332.59	<b>\$183,586.08</b>
<b>Benton</b>	\$175,322.15	\$240,691.09	\$1,122,392.51	\$230,367.15	<b>\$1,768,772.90</b>
<b>Chelan</b>	\$132,234.02	\$61,946.57	\$437,572.68	\$143,529.60	<b>\$775,282.87</b>
<b>Clallam</b>	\$130,181.17	\$76,278.51	\$375,713.42	\$99,281.32	<b>\$681,454.42</b>
<b>Clark</b>	\$412,642.21	\$1,146,422.98	\$2,302,347.70	\$538,410.06	<b>\$4,399,822.95</b>
<b>Columbia</b>	\$9,941.77	\$586.96	\$21,160.05	\$4,900.21	<b>\$36,588.99</b>
<b>Cowlitz</b>	\$123,086.61	\$117,186.32	\$580,352.14	\$160,131.51	<b>\$980,756.58</b>
<b>Douglas</b>	\$38,563.35	\$50,994.41	\$202,493.19	\$57,577.34	<b>\$349,628.29</b>
<b>Ferry</b>	\$22,516.27	\$620.92	\$25,182.23	\$9,446.29	<b>\$57,765.71</b>
<b>Franklin</b>	\$60,327.42	\$63,371.39	\$427,985.70	\$173,602.75	<b>\$725,287.26</b>
<b>Garfield</b>	\$6,646.55	\$357.59	\$11,571.70	\$1,170.48	<b>\$19,746.32</b>
<b>Grant</b>	\$110,670.49	\$30,365.85	\$483,815.18	\$166,792.83	<b>\$791,644.35</b>
<b>Grays Harbor</b>	\$87,380.00	\$92,530.69	\$357,625.05	\$111,164.03	<b>\$648,699.77</b>
<b>Island</b>	\$130,317.46	\$103,396.99	\$503,144.35	\$66,308.60	<b>\$803,167.40</b>
<b>Jefferson</b>	\$64,528.62	\$33,622.96	\$180,195.97	\$48,778.24	<b>\$327,125.79</b>
<b>King</b>	\$2,896,019.50	\$3,392,296.22	\$15,806,913.70	\$1,999,534.98	<b>\$24,094,764.40</b>
<b>Kitsap</b>	\$281,461.22	\$347,865.90	\$1,613,706.77	\$288,027.40	<b>\$2,531,061.29</b>
<b>Kittitas</b>	\$83,261.85	\$17,391.52	\$229,039.96	\$37,066.49	<b>\$366,759.82</b>
<b>Klickitat</b>	\$49,719.28	\$11,227.98	\$117,218.87	\$14,316.68	<b>\$192,482.81</b>
<b>Lewis</b>	\$147,990.07	\$58,406.73	\$413,511.01	\$120,373.42	<b>\$740,281.23</b>
<b>Lincoln</b>	\$34,877.95	\$767.86	\$63,081.22	\$7,535.69	<b>\$106,262.72</b>
<b>Mason</b>	\$106,698.33	\$50,323.59	\$312,093.95	\$88,382.47	<b>\$557,498.34</b>
<b>Okanogan</b>	\$85,890.40	\$14,568.24	\$176,263.16	\$88,110.13	<b>\$364,831.93</b>
<b>Pacific</b>	\$54,203.68	\$21,823.96	\$111,658.24	\$20,385.98	<b>\$208,071.86</b>
<b>Pend Oreille</b>	\$27,293.10	\$2,868.32	\$66,272.97	\$8,843.57	<b>\$105,277.96</b>
<b>Pierce</b>	\$708,364.04	\$1,172,624.59	\$5,366,922.65	\$990,294.70	<b>\$8,238,205.98</b>
<b>San Juan</b>	\$81,150.43	\$10,670.05	\$102,354.97	\$10,884.17	<b>\$205,059.62</b>
<b>Skagit</b>	\$169,335.63	\$164,184.85	\$756,973.61	\$154,929.91	<b>\$1,245,424.00</b>
<b>Skamania</b>	\$30,021.45	\$1,558.55	\$56,462.86	\$7,780.82	<b>\$95,823.68</b>

**FY18  
Cost  
Analysis**

	LOCAL REVENUE REPORTED				
	Wireline	VoIP	Wireless	Prepaid Wireless	Total
<b>Snohomish</b>	\$859,092.58	\$1,023,716.24	\$5,293,544.27	\$688,475.72	<b>\$7,864,828.81</b>
<b>Spokane</b>	\$553,006.31	\$608,377.08	\$2,898,372.07	\$654,367.32	<b>\$4,714,122.78</b>
<b>Stevens</b>	\$92,303.65	\$14,354.82	\$223,881.27	\$62,042.93	<b>\$392,582.67</b>
<b>Thurston</b>	\$288,891.47	\$421,538.02	\$1,785,203.24	\$302,970.00	<b>\$2,798,602.73</b>
<b>Wahkiakum</b>	\$12,866.93	\$442.80	\$22,659.42	\$3,075.53	<b>\$39,044.68</b>
<b>Walla Walla</b>	\$59,238.78	\$67,011.70	\$295,815.39	\$86,610.45	<b>\$508,676.32</b>
<b>Whatcom</b>	\$230,945.79	\$317,551.01	\$1,241,856.30	\$227,709.41	<b>\$2,018,062.51</b>
<b>Whitman</b>	\$66,753.90	\$19,485.78	\$199,950.59	\$33,625.75	<b>\$319,816.02</b>
<b>Yakima</b>	\$336,559.86	\$209,426.90	\$1,187,124.60	\$526,378.52	<b>\$2,259,489.88</b>
<b>WSP</b>					
<b>TOTALS</b>	<b>\$ 8,810,564.10</b>	<b>\$ 9,983,444.98</b>	<b>\$ 45,572,673.23</b>	<b>\$ 8,304,412.44</b>	<b>\$ 72,671,094.75</b>

BSO <sup>36</sup> Contracts Received OPS <sup>37</sup> & CPD <sup>38</sup> funding
Received CPD funding only

<sup>36</sup> BSO - Basic Service Operations

<sup>37</sup> OPS – Operations

<sup>38</sup> CPD – Coordinator Professional Development

Appendix 7 – Financial – State Contract Information

<b>FY18 Cost Analysis</b>	<b>STATE CONTRACT INFORMATION</b>						<b>TOTAL Network &amp; Database for FY18</b>	<b>TOTAL STATE REIMBURSEMENT (contract &amp; statewide services)</b>
	<b>CPD FUNDING</b>		<b>OPERATIONAL FUNDING</b>		<b>TOTAL CONTRACT INFO</b>			
	<i>CPD \$ Contract</i>	<i>CPD Paid</i>	<i>OPS \$ Contract</i>	<i>OPS Paid</i>	<i>Total Contract</i>	<i>Total Paid</i>		
<b>Adams</b>	\$19,200.00	\$19,200.00	\$396,364.00	\$396,364.00	\$415,564.00	\$415,564.00	\$63,384.42	\$478,948.42
<b>Asotin</b>	\$17,500.00	\$16,421.58	\$ -	\$ -	\$17,500.00	\$16,421.58	\$ 0	\$16,421.58
<b>Benton</b>	\$27,450.00	\$27,450.00	\$ -	\$ -	\$27,450.00	\$27,450.00	\$219,978.47	\$247,428.47
<b>Chelan</b>	\$30,750.00	\$30,750.00	\$204,733.00	\$204,733.00	\$235,483.00	\$235,483.00	\$178,421.38	\$413,904.38
<b>Clallam</b>	\$23,775.00	\$23,775.00	\$ -	\$ -	\$23,775.00	\$23,775.00	\$94,356.65	\$118,131.65
<b>Clark</b>	\$34,252.00	\$34,252.00	\$ -	\$ -	\$34,252.00	\$34,252.00	\$467,242.14	\$501,494.14
<b>Columbia</b>	\$20,638.00	\$20,637.70	\$508,077.00	\$508,077.00	\$528,715.00	\$528,714.70	\$49,255.76	\$577,970.46
<b>Cowlitz</b>	\$24,219.00	\$24,219.00	\$ -	\$ -	\$24,219.00	\$24,219.00	\$128,869.58	\$153,088.58
<b>Douglas</b>	\$18,250.00	\$18,250.00	\$ -	\$ -	\$18,250.00	\$18,250.00	\$69,454.14	\$87,704.14
<b>Ferry</b>	\$19,000.00	\$19,000.00	\$534,054.00	\$534,054.00	\$553,054.00	\$553,054.00	\$68,916.68	\$621,970.68
<b>Franklin</b>	\$22,650.00	\$22,150.00	\$ -	\$ -	\$22,650.00	\$22,150.00	\$122,079.12	\$144,229.12
<b>Garfield</b>	\$20,500.00	\$20,500.00	\$540,513.00	\$540,513.00	\$561,013.00	\$561,013.00	\$29,061.64	\$590,074.64
<b>Grant</b>	\$23,000.00	\$23,000.00	\$ -	\$ -	\$23,000.00	\$23,000.00	\$123,096.96	\$146,096.96
<b>Grays Harbor</b>	\$25,900.00	\$25,900.00	\$4,999.00	\$4,999.00	\$30,899.00	\$30,899.00	\$141,588.12	\$172,487.12
<b>Island</b>	\$24,705.00	\$24,705.00	\$ -	\$ -	\$24,705.00	\$24,705.00	\$180,217.24	\$204,922.24
<b>Jefferson</b>	\$18,275.00	\$18,275.00	\$293,777.00	\$293,777.00	\$312,052.00	\$312,052.00	\$90,279.92	\$402,331.92
<b>King</b>	\$52,750.00	\$52,749.96	\$ -	\$ -	\$52,750.00	\$52,749.96	\$4,384,731.92	\$4,437,481.88
<b>Kitsap</b>	\$24,500.00	\$24,500.00	\$ -	\$ -	\$24,500.00	\$24,500.00	\$391,470.95	\$415,970.95
<b>Kittitas</b>	\$21,470.00	\$21,470.00	\$222,454.00	\$222,454.00	\$243,924.00	\$243,924.00	\$111,886.23	\$355,810.23
<b>Klickitat</b>	\$17,325.00	\$17,325.00	\$432,256.00	\$432,256.00	\$449,581.00	\$449,581.00	\$72,815.67	\$522,396.67

<b>FY18 Cost Analysis</b>	<b>STATE CONTRACT INFORMATION</b>						<b>TOTAL Network &amp; Database for FY18</b>	<b>TOTAL STATE REIMBURSEMENT (contract &amp; statewide services)</b>
	<b>CPD FUNDING</b>		<b>OPERATIONAL FUNDING</b>		<b>TOTAL CONTRACT INFO</b>			
	<i>CPD \$ Contract</i>	<i>CPD Paid</i>	<i>OPS \$ Contract</i>	<i>OPS Paid</i>	<i>Total Contract</i>	<i>Total Paid</i>		
<b>Lewis</b>	\$22,100.00	\$22,100.00	\$ -	\$ -	\$22,100.00	\$22,100.00	\$233,804.12	\$255,904.12
<b>Lincoln</b>	\$14,500.00	\$14,500.00	\$461,350.00	\$461,350.00	\$475,850.00	\$475,850.00	\$37,580.28	\$513,430.28
<b>Mason</b>	\$24,500.00	\$24,500.00	\$73,798.00	\$73,798.00	\$98,298.00	\$98,298.00	\$114,176.13	\$212,474.13
<b>Okanogan</b>	\$19,850.00	\$19,850.00	\$220,792.00	\$220,792.00	\$240,642.00	\$240,642.00	\$128,612.51	\$369,254.51
<b>Pacific</b>	\$18,280.00	\$18,280.00	\$383,971.00	\$383,971.00	\$402,251.00	\$402,251.00	\$82,835.50	\$485,086.50
<b>Pend Oreille</b>	\$19,005.00	\$19,005.00	\$486,603.00	\$486,603.00	\$505,608.00	\$505,608.00	\$102,656.82	\$608,264.82
<b>Pierce</b>	\$29,000.00	\$29,000.00	\$ -	\$ -	\$29,000.00	\$29,000.00	\$1,791,060.43	\$1,820,060.43
<b>San Juan</b>	\$15,460.00	\$15,460.00	\$366,958.00	\$366,958.00	\$382,418.00	\$382,418.00	\$56,443.49	\$438,861.49
<b>Skagit</b>	\$26,773.00	\$26,773.00	\$ -	\$ -	\$26,773.00	\$26,773.00	\$479,970.23	\$506,743.23
<b>Skamania</b>	\$21,400.00	\$21,400.00	\$456,784.00	\$456,784.00	\$478,184.00	\$478,184.00	\$65,853.42	\$544,037.42
<b>Snohomish</b>	\$28,250.00	\$28,250.00	\$ -	\$ -	\$28,250.00	\$28,250.00	\$1,132,241.28	\$1,160,491.28
<b>Spokane</b>	\$30,509.00	\$30,455.27	\$ -	\$ -	\$30,509.00	\$30,455.27	\$681,318.19	\$711,773.46
<b>Stevens</b>	\$21,550.00	\$14,464.32	\$202,261.00	\$202,261.00	\$223,811.00	\$216,725.32	\$70,080.70	\$286,806.02
<b>Thurston</b>	\$40,850.00	\$40,840.26	\$ -	\$ -	\$40,850.00	\$40,840.26	\$370,918.68	\$411,758.94
<b>Wahkiakum</b>	\$50,011.00	\$50,011.00	\$526,830.00	\$526,830.00	\$576,841.00	\$576,841.00	\$29,653.00	\$606,494.00
<b>Walla Walla</b>	\$19,900.00	\$19,900.00	\$130,557.00	\$130,557.00	\$150,457.00	\$150,457.00	\$81,627.09	\$232,084.09
<b>Whatcom</b>	\$22,550.00	\$22,550.00	\$ -	\$ -	\$22,550.00	\$22,550.00	\$480,052.55	\$502,602.55
<b>Whitman<sup>39</sup></b>	\$23,045.00	\$23,045.00	\$636,042.00	\$636,042.00	\$659,087.00	\$659,087.00	\$243,708.99	\$902,795.99
<b>Yakima</b>	\$23,250.00	\$23,250.00	\$ -	\$ -	\$23,250.00	\$23,250.00	\$329,848.19	\$353,098.19
<b>WSP</b>	\$22,350.00	\$22,348.26	\$279,407.00	\$279,407.00	\$301,757.00	\$301,755.26	\$485,771.49	\$787,526.75

**TOTALS \$979,242.00 \$970,512.35 \$7,362,580.00 \$7,362,580.00 \$8,341,822.00 \$ 8,333,092.35 \$13,985,320.06 \$22,318,412.41**

The Totals on this page do not include the SECO administrative costs of \$1,196,680.55

<sup>39</sup> Includes costs for Asotin County

Appendix 8 – Financial – FY18 Call Volume

<b>FY18 Cost Analysis</b>	<b>CALL VOLUMES FY18</b>					<b>2018 County Estimated Population</b>	<b>State Funding per Call (State Assist/# of calls)</b>	<b>WAC Eligible Funding per Call (local revenue + state asst/# of calls)</b>	<b>State Funding per Person (State Assist/ Population)</b>
	<i>Wireline</i>	<i>Wireless</i>	<i>VoIP</i>	<i>Text</i>	<b>Total</b>				
<b>Adams</b>	845	11,300	127	0	12,272	20,020	\$39.03	\$51.64	\$23.92
<b>Asotin</b>	Asotin numbers merged with Whitman County					22,420	\$0	\$0	\$0.73
<b>Benton</b>	12,607	83,303	956	0	96,866	197,420	\$2.55	\$20.81	\$1.25
<b>Chelan</b>	5,011	36,883	316	0	42,210	77,800	\$9.81	\$28.17	\$5.32
<b>Clallam</b>	8,144	26,256	3,552	62	38,014	75,130	\$3.11	\$21.03	\$1.57
<b>Clark</b>	30,411	195,994	21,512	484	248,401	479,500	\$2.02	\$19.73	\$1.05
<b>Columbia</b>	382	1,128	20	0	1,530	4,150	\$377.76	\$401.67	\$139.27
<b>Cowlitz</b>	8,268	55,020	4,980	0	68,268	107,310	\$2.24	\$16.61	\$1.43
<b>Douglas</b>	1,783	8,886	86	0	10,755	42,120	\$8.15	\$40.66	\$2.08
<b>Ferry</b>	958	2,033	66	0	3,057	7,780	\$203.46	\$222.35	\$79.94
<b>Franklin</b>	4,109	41,765	1,111	0	46,985	92,540	\$3.07	\$18.51	\$1.56
<b>Garfield</b>	588	1,084	26	0	1,698	2,210	\$347.51	\$359.14	\$267.00
<b>Grant</b>	3,601	42,546	1,044	174	47,365	97,350	\$3.08	\$19.80	\$1.50
<b>Grays Harbor</b>	6,691	40,221	5,894	0	52,806	73,610	\$3.27	\$15.55	\$2.34
<b>Island</b>	5,458	24,241	2,969	0	32,668	83,860	\$6.27	\$30.86	\$2.44
<b>Jefferson</b>	2,800	15,707	1,309	0	19,816	31,590	\$20.30	\$36.81	\$12.74
<b>King</b>	277,314	1,514,603	130,512	0	1,922,429	2,190,200	\$2.31	\$14.84	\$2.03
<b>Kitsap</b>	25,379	582,539	22,754	0	630,672	267,120	\$0.66	\$4.67	\$1.56
<b>Kittitas</b>	4,428	27,200	213	4	31,845	45,600	\$11.17	\$22.69	\$7.80
<b>Klickitat</b>	1,322	10,805	88	0	12,215	21,980	\$42.77	\$58.52	\$23.77

<b>FY18 Cost Analysis</b>	<b>CALL VOLUMES FY18</b>					<b>2018 County Estimated Population</b>	<b>State Funding per Call</b>	<b>WAC Eligible Funding per Call</b>	<b>State Funding per Person</b>
	<i>Wireline</i>	<i>Wireless</i>	<i>VoIP</i>	<i>Text</i>	<b>Total</b>				
<b>Lewis</b>	15,394	102,754	4,539	0	122,687	78,380	\$2.09	\$8.12	\$3.26
<b>Lincoln</b>	618	3,499	140	0	4,257	10,810	\$120.61	\$145.57	\$47.50
<b>Mason</b>	7,415	27,490	2,675	0	37,580	64,020	\$5.65	\$20.49	\$3.32
<b>Okanogan</b>	3,921	17,931	484	0	22,336	42,490	\$16.53	\$32.87	\$8.69
<b>Pacific</b>	3,107	9,669	658	23	13,457	21,420	\$36.05	\$51.51	\$22.65
<b>Pend Oreille</b>	1,061	5,834	156	0	7,051	13,540	\$86.27	\$101.20	\$44.92
<b>Pierce</b>	94,287	1,274,003	71,740	0	1,440,030	872,220	\$1.26	\$6.98	\$2.09
<b>San Juan</b>	2,291	6,575	263	0	9,129	16,810	\$48.07	\$70.54	\$26.11
<b>Skagit</b>	26,676	70,837	7,690	0	105,203	126,520	\$4.82	\$16.66	\$4.01
<b>Skamania</b>	1,451	8,527	157	0	10,135	11,890	\$53.68	\$63.13	\$45.76
<b>Snohomish</b>	61,258	421,193	44,067	1,359	527,877	805,120	\$2.20	\$17.10	\$1.44
<b>Spokane</b>	29,063	229,812	19,726	562	279,163	507,950	\$2.55	\$19.44	\$1.40
<b>Stevens</b>	4,111	13,058	244	0	17,413	45,030	\$16.47	\$39.02	\$6.37
<b>Thurston</b>	19,140	115,880	13,274	143	148,437	281,700	\$2.77	\$21.63	\$1.46
<b>Wahkiakum</b>	756	743	175	4	1,678	4,100	\$361.44	\$384.71	\$147.93
<b>Walla Walla</b>	3,973	17,754	396	0	22,123	61,800	\$10.49	\$33.48	\$3.76
<b>Whatcom</b>	15,819	106,141	16,108	0	138,068	220,350	\$3.64	\$18.26	\$2.28
<b>Whitman</b>	4,783	21,555	2,154	0	28,492	49,210	\$31.69	\$42.91	\$18.35
<b>Yakima</b>	23,750	163,203	1,963	171	189,087	254,500	\$1.87	\$13.82	\$1.39
<b>WSP</b>	Blank	487,026	Blank	Blank	487,026	7,427,570	\$1.62	\$1.62	\$0.11
<b>TOTALS</b>	<b>718,973</b>	<b>5,824,998</b>	<b>384,144</b>	<b>2,986</b>	<b>6,931,101</b>	<b>7,427,570</b>	<b>Avg: \$3.22</b>	<b>Avg: \$13.70</b>	<b>Avg: \$3.00</b>

(Total State Assist/Total Calls)

(Total Rev + State Asst / Total Calls)

(Total State Assist/Total Pop)

## Appendix 9 – Financial – County Survey Results

Due to the size and complexity of the results, the county survey detail is available upon request.

## Appendix 10 – Operations – Additional Public Safety Telecommunicator Duties

- Agency specific additional duties include:
  - Answer non-emergency lines to support user agencies after-hours
  - Monitor home/business alarm systems
  - Monitor security camera and Closed-Circuit TV feeds
  - Monitor inmates and assist jailers with correctional duties
  - Record keeping, warrant management
  - Update social media
  - Public facing in-person front desk contacts
  - Fingerprinting
  - Preparing audio recordings for court, officers, attorneys or the public
  - Processing and maintaining Protection Orders and Warrants
  - Entering persons, vehicles and property into various databases: stolen, missing, runaway, endangered, impound, and recovered property, AMBER ALERTS/SILVER ALERTS
  - Emergency broadcast and reverse 9-1-1 notifications
  - Maintaining databases: GIS/mapping, impending home deaths, business files, rotational logs for towing, coroner and chaplain response, etc.

Supervisors: Highly skilled Public Safety Telecommunicators who oversee operations of the center.

- Provide first-level supervision, coaching/counseling/discipline and quality assurance
- Often work split time between console (call taking/dispatching) and supervising
- Often assigned public records functions, training manager, public relations, public information, social media management and other duties.

Training Officers: Highly skilled Public Safety Telecommunicators who provide training and guidance for new employees.

- Provide a mix of classroom and console training for new employees
- Maintain Training/Certification Records
- Identify and recommend training programs
- Staff development
- Maintain Public Safety Telecommunicator skills ~~and other function duties.~~

Technical Support:

A PSAP requires individuals through direct employment, contract services or services from a host agency to perform:

- Computer, network, network security, GIS/Mapping function
- Radio network support (a mix of IT network, radio frequency, radio-tower and radio maintenance).
- Phones – both 911 and business phone application
- Project management, research and acquisition of supporting systems
- Ability to install, maintain, upgrade and manage a wide variety of complex computer, radio and networking equipment.

Administration:

Each PSAP requires individuals through direct employment, contract services or services from a host agency to perform:



- Human Resources
- Finance (Accounts Receivable, Purchasing, Budgeting)
- Management/Administration (oversight of funding, payroll, policy/procedures development, bargaining, contracting, hiring and employee development).
- Project management
- Clerical
- Public Records
- Public Information and social media management
- Legal

## Appendix 11 – Technology – Technology systems currently in use

The public safety technology currently in use.

Telephone Systems		Telephone System and integrated map		Number of Integrated Call Taking Positions		IGN <sup>40</sup> Connected	
Intrado Viper	10	Yes	15	Radio and Telephone	224.5	Yes	22
Combix 911	1	No	14	Radio only	0	No	4
Comtech XT911	3			Telephone only	37	Unknown	3
Intrado Power 911	2	Radio over IP in use		Training consoles	19		
SolaCom Guardian	4	ESChat	6	Unknown	29		
Motorola ECW <sup>41</sup>	9	Wave	2				

PBX systems in use for 10 digit emergency and administrative lines				Rapid SOS integration			
None	3	Shortel	3	Integrated	14	Not integrated	11
Cisco	4	Zetron	1	Integration in process	1		
Motorola ECW	3	Avaya	6				
Jive Communications	1	Free PBX	1	Rapid SOS Integrator			
Intrado Power 911	1	Mitel	1	Motorola ECW	5	Rapid Lite	4
Combix Integrated	1	Nortel	1	Smart 911	2	Solacom	1
Comtech	2	Intrado Viper	1	Zetron	1		

PSAPs readiness for Text to 911		PSAPs state of readiness for Video calls to 911	
Implemented more than 12 months ago	9	Investigating Options	10
Implementation in next 12 months	7	Interested in via ESInet when available	11
Implemented in last 12 months	4	Not interested	7
Actively investigating implementation	9	Never heard of it	1

PSAPs readiness to accept digit <sup>42</sup> files into 911		PSAPs readiness to initiate text to a caller	
Interested via ESInet when available	13	Interested via ESInet when available	16
Investigating options	9	Investigating options	7
Not interested	6	Implementing or already implemented	2
		Not interested	4

ECNS <sup>43</sup> systems in use		Additional applications		Additional applications in use	
Everbridge	8	Active 911	12	ActivE911	12
Code Red	5	PulsePoint	6	PulsePoint	6
Alert Sense	4	ISpy	5	ISpy	5
Hyper Reach	3	IamResponding	4	IamResponding	4
Rave	2	Smart911	3	Smart911	3
Reverse 911	1	Hiplink	2	Hiplink	2
Unknown or none	5				

<sup>40</sup> Inter-governmental network

<sup>41</sup> Motorola Emergency Call Works

<sup>42</sup> Images, pictures, video

<sup>43</sup> Emergency Community Notification System

## Appendix 12 – County Stories

Washington State covers a vast range of geography and population diversity. Our culture of creativity and collaboration has resulted in one of the most advanced 911 systems in the nation. However, we also recognize that each of the 39 counties and Washington State Patrol Communications have a unique story to tell. The following pages allow each county to introduce their special place within Washington and express some of the challenges they face, success they enjoy, and efficiencies they are already employing.

# Adams County Communications Center

## Adams County Washington

The Adams County Communications Center is located inside the Sheriff's Office in Ritzville, the county seat of Adams County. The county is very rural, with a low population density and relies heavily on the agricultural industry. The eastern part of the county primarily raises such dryland crops as wheat, barley, and canola. The western part of the county, specifically the "panhandle" area, is in the East Columbia Irrigation District and raises potatoes, wheat, corn, fruits, and other crops that require more water than the annual rainfall. Cattle ranching and raising hay remain part of the agricultural heritage of the county. There is an egg production facility and also food processing plants which play a role in getting many of the products to market. In the last couple of years a solar farm has been built and there are two wind farms in the process of being built.

The largest community is Othello, which is located in the "panhandle" part of the county and Ritzville, located in the eastern part, is the second largest. Other communities within the county include Lind, Washtucna, Bengene, and Hatton.

There are several major highways running through the county, including Interstate 90, Highway 395, Highway 26, and other lesser traveled state highways. A large number of travelers pass through the county on a daily basis taking advantage of our gas stations, restaurants, recreational areas and facilities, and our hospitality industry.

People can participate in recreational activities such as hunting and fishing as well as the local festivals each of the communities have, plus 1 county fair and 1 community fair.

The five fire and three EMS districts rely on dedicated volunteers to respond to any emergency that may arise. Radio communications are handled by the Adams County Communications Center with the exception of one fire and 1 EMS district which are dispatched through the Othello Police Department.

### County Facts:

**Area:**

1,925 Square Miles

**Population:**

19,759

**Population Ethnicity:**

64.3% Hispanic

33.1% White

2% Other

**Median Income (2014-2018):**

\$49,142 per household

### Communications

#### Center Facts:

**Employees:**

7 Telecommunicators

1 Supervisor

**2019 Total 911 Calls:**

10,443

**2019 Calls for Service:**

9,844 Law

533 Fire

1,258 EMS

11,634 Total

**Annual Budget:**

\$686,948.23

**Revenue Sources:**

State Grant

1/10<sup>th</sup> of 1% Sales Tax

Phone Excise Tax

User Fees

County General Fund

Adams County Sheriff Deputies and Ritzville Police Department Officers are dispatched through the Adams County Communications Center and the Othello Police Department is dispatched through their department's Communications Center. There is also a WSP detachment located in Ritzville, which is dispatched out of the Spokane WSP District.

**Successes:**

Within the past year:

- \*Upgraded radio consoles in the communications center
- \*Upgraded the logging recorder
- \*Installed a new CAD (Computer Aided Dispatch) server
- \*Newly formed association successfully negotiated a new contract with the county giving telecommunicators a significant wage and benefits increase. Something they haven't had in 10 years

Over the last five years:

- \*Installation of a new 911 phone system
- \*The buildup of the 1/10 of 1% sales tax revenue so upgrades to communications systems can be done
- \* Realignment of the center and new furniture for better communications between telecommunicators

**Challenges:**

- \*Continuously defending the role and the value of a small communications center
- \*Currently, keeping fully staffed
- \*Keeping all equipment updated and maintained
- \*Staying current with new technology
- \*Staying within a tight budget but still making sure we are providing the best possible service.

**Efficiencies:**

- \*One communications center serving the majority of the county
- \*Staffing flexibility which limits the amount of overtime paid out
- \*All communications equipment in one secure room
- \*All telecommunicators cross-trained except for record dissemination/retention and MSAG/GIS

## Asotin County



Asotin County is a dynamic community with diverse recreational opportunities and natural beauty, uniquely situated along the Snake River adjoining the States of Idaho and Oregon. The Lewis-Clark Valley is the lowest elevation point in the region at only 738 feet above sea level. We are also the gateway to the Hells Canyon which is the deepest gorge in North America. We are the Jet Boat Capital of the World and offer water sports, hunting, hiking, mountain biking, bird watching, and walking the levee pathway along the Snake River. Asotin County offers year round golfing, guided fishing trips, white water rafting, camping, ATV and horseback riding. Wild huckleberry and Mushroom picking are only 30 minutes south of Asotin. Field Springs State Park offers Snow Shoeing, Cross Country Skiing and a Tubing Hill.

Cruise ships arrive and depart from spring to fall in Clarkston's port district. Passengers can experience all the area has to offer from wine tasting to awe-inspiring Hells Canyon jet boat excursions.

Asotin County is an angler's paradise. Few places offer the variety and accessibility of outdoor diversions that are found right in our backyard. The spring and summer months offer Bass, Trout and spring Chinook and during the fall it is Steelhead, fall Chinook and Coho. The canyon has a healthy number of North America's largest fresh water fish, the great White Sturgeon, which can reach lengths up to 8 feet.

In 2004, Asotin County entered into a contract agreement with WHITCOM 911 to provide E911 and dispatch services. WHITCOM 911 is the Regional Public Safety Answering Point (PSAP) located in Pullman Washington and provides 911 and dispatch services for Whitman County, WA and Moscow, Idaho. WHITCOM provides 911 and dispatch services for all first responder agencies in Asotin County including the Sheriff's office, two city Police Departments, two city Fire Departments and two Fire Districts.

Asotin County agencies operate under an Inter-local governmental agreement between the County, City of Asotin, City of Clarkston and the Asotin County Fire District #1. An Advisory Committee was formed to facilitate regular open communications and corporation between the Asotin County entities serviced by WHITCOM. The advisory committee is responsible for all aspects of the communications system including developing and maintaining a funding model to pay for WHITCOM services. The Advisory Committee is also responsible for the operation,

## ASOTIN COUNTY

Population: 22,582

Area: 641 Square Miles

Contract for 911 & Dispatch

7 Fire/EMS/Law agencies

### 2019

Call for service: 23,859

911 Budget: \$687,646

Revenue: mix of phone excise tax, user fees and pass through grant funds

maintenance and funding the emergency communications radio infrastructure which is remotely controlled by WHITCOM.

**Successes:**

- Asotin County has successfully maintained a good working partnership with Whitcom for 16 years.
- By regionalizing PSAP's with Whitman County, Asotin County has saved tax payers an immeasurable amount of money and resources by not having to duplicate equipment and personnel.

**Challenges:**

- Finding dedicated funding to help reduce the "out of pocket" expenses user agencies have to pay for contract services. The increase costs of paying for a regional PSAP is getting harder to justify not having a county owned and operated PSAP.
- A non-host county of a regional PSAP loses out of funding that it previously had for maintaining GIS and MSAG that the host county receives funding for. Each county is required to maintain accurate GIS and MSAG data but only the host county gets salary and training funds at the normal rate. They do not get extra funding to maintain both counties GIS and MSAG data. The same can be said for Public Education salary funding.
- Finding common ground with agencies in other counties on dispatch protocols and procedures. All agencies using a regional PSAP must do things the same since they are sharing a common CAD system. Having each agency attempt to do things differently makes it very difficult to train and maintain new dispatchers due to the work overload.
- In addition to the direct expenses of dispatch services, the county still has to find money to pay for radio infrastructure and connectivity to the PSAP, individual user agency CAD maintenance and the dedicated networks to keep agencies connected to the PSAP.

**Efficiencies:**

- A regional PSAP has reduced the duplication of purchasing expensive equipment and maintenance required by a 911 center. You no longer need two CAD systems, logging recording systems, GIS and Mapping System and everything else an Operational Contract PSAP is eligible for (furniture, generators, chairs etc.)
- A single merged CAD platform allows all the agencies to share call data, records data, mapping and field data

## Benton County



Benton County was created March 1905 and is in south-central Washington. The city of Prosser is home to the County seat. Benton County operates under a plural executive form of government with three commissioners.

There are five cities within Benton County – Kennewick, Richland, West Richland, Benton City and Prosser. Kennewick and Richland are the largest cities within Benton County and are often referred to as part of the “Tri-Cities” which include the City of Pasco in Franklin County. The “Tri-Cities” border one another at the confluence of the Yakima, Columbia, and Snake Rivers. All three cities border each other, appearing to be one medium sized city.

The Hanford Site which covers 586 square miles of Benton County, is a decommissioned nuclear production complex operated by the United States federal government.



Benton County is in a semi-arid climate, that enjoys 225 clear days every year with 5-7 inches of precipitation on average, this allows for many forms of outdoor recreation which can result in use of 911.

Employment within Benton County is diverse as there are several scientific employers, general business, retail, and large areas dedicated to agriculture including the wine industry.

Southeast Communications Center (SECOMM) is created through an interlocal agreement between Benton County, Franklin County, and the cities of Kennewick, Richland, and Pasco.

### 2019 County Statistics

#### Area

Benton County: 1,700 sq. mi.  
Franklin County: 1,242 sq. mi.

#### Population

Benton County: 204,390  
Franklin County: 95,222

#### Employees

42 Telecommunicators  
4 Telecommunicator Leads  
4 Communications Supervisors  
1 Communications Manager  
3 IT Staff  
3 Support Staff

911 Calls: 133,489  
Non-Emergency Calls: 167,318

#### Calls for Service

Law: 163,291  
Fire/EMS: 31,683  
Total: 194,974

#### Budget

SECOMM: \$6,951,467  
800Mhz/Microwave: \$1,036,556



SECOMM provides 911 and non-emergency call taking for both Benton and Franklin counties along with dispatch of all public safety agencies within both counties. Additionally, SECOMM provides dispatch service to Walla Walla Fire District #5.

#### Challenges:

- Staffing – Recruiting, hiring, training, and retaining skilled telecommunicators remains an industry challenge and one SECOMM struggles with as well.
- Funding – Currently SECOMM relies on 911 tax revenue along with customer and owner agencies fees.
- Reclassification – Telecommunicators are currently classified as “Office and Administrative Support Occupations”. Reclassification within Washington State and on a federal level would support appropriate pay and benefits, thus supporting our number one challenge of staffing.
- Law Enforcement Radio Coverage – 800 MHz radio system used for law enforcement dispatching and communication was designed to cover Benton County. Due to topography the system allows for communication within the City of Pasco and North to the midpoint of Franklin County. Communications must be patched with an aging VHF radio system that is predominantly used for Fire/EMS responders.
- Use of Two Disparate Radio Systems – 800 MHz and VHF.
- Technology Costs – Increased reliance on technology requires costly maintenance and upgrades.

#### Successes and Efficiencies:

- 2018 Franklin County joined SECOMM for 911 and dispatch service. Eliminating the costs associated with an additional PSAP.
- Geographic Information Systems – SECOMM employs a GIS professional who receives data from all GIS agencies within Benton and Franklin counties and uses this data to maintain a “Public Safety” map specific to dispatch needs.
- Partnerships with public utility agencies to maintain an 800 MHz radio system.
- Partnering with local municipalities to efficiently provide back up locations in the event of a need to evacuate our primary location.

## Chelan County



Much vision, planning and hard work culminated with joining the separate communications centers of Chelan and Douglas Counties with the cities of East Wenatchee and Wenatchee into forming RiverCom 911 as Washington State’s first two-county consolidated communications center in 2004. RiverCom 911 is governed by the RiverCom Administrative Board consisting of a Commissioner from each county, an elected official from the City of Wenatchee and the City of East Wenatchee and one representative of the Ex-Officio community of responders and smaller

cities. We operate within the guidelines of our Interlocal Agreements with each of our 4 Law Enforcement, 14 Fire Departments, 7 EMS Agencies with two private ambulance companies within three hospital districts.

RiverCom 911 has varied funding sources including Agency Assessment Fees, 1/10<sup>th</sup> of 1% Local Communications Tax, local E911 Phone Excise Tax, State E911 Contract Program and Radio Site Lease Fees.

RiverCom 911 takes care of the 121,000 citizens of Chelan and Douglas Counties as well as our responders and visitors from the rugged Cascade Mountain range to the west to the high plains and open fields to the east and all points in between. In 2019, we processed nearly 150,000 telephone calls including 9-1-1, other emergent/alarm and business line calls.

The mighty Columbia River separates our two counties that are located in the middle of Washington State. With 2994 square miles in Chelan County and 1849 in Douglas County, our counties are popular recreation destination from snowmobiling, skiing and snowshoeing in the winter to birdwatching, hiking, mountain climbing, boating, kayaking, fishing and hunting from early



spring through fall. In addition, many of our cities host numerous festivals and celebrations throughout the year. Two of our major industries are tourism and agriculture.

### 2019

#### Calls For Service:

Law: 46,703

Fire/EMS: 11,652

#### Phone Calls Received:

911: 48,385

Business: 91,130

**Annual Budget:** \$10.1 million

#### Revenue Sources:

Agency Assessment Fees

1/10<sup>th</sup> of 1% Sales Tax

E911 Phone Excise Tax

State E911 Contract Program

Radio Site Lease Fees

#### User Agencies:

4 Law Enforcement Agencies

14 Fire Departments

7 EMS Agencies

#### RiverCom 911 Staff:

30 Telecommunicators

3 Supervisors

10 Admin/IT/Support

RiverCom is responsible for the mission-critical responsibility of maintaining regional 911 communications systems that cover a wide range of geographical features and terrain. RiverCom operates and maintains a two-county public safety radio system comprised of nineteen (19) radio sites throughout Chelan and Douglas counties. Compared to any other 911 agency operating in the state, RiverCom's two-county radio system provides the largest expanse of coverage in the state of Washington.

### **Challenges:**

- We have outgrown our communications center space and are working to find a future prime RiverCom 911 site.
- RiverCom 911 struggles with recruitment, hiring and successful retention of new Public Safety Telecommunicators. The turnover results in unsustainable overtime and additional stress on current employees.
- Radio and cell phone coverage is a significant operational challenge due to the terrain of our counties.
- For remote locations in our area, lengthy emergency response times to calls sometimes require Telecommunicators to stay on the line with callers for extended periods of time.
- RiverCom 911 is receiving and training on new radio consoles and a new phone system within two months of each other.
- With four law enforcement agencies, RiverCom 911 has difficulty maintaining streamlined processes and reducing the complexity of our Telecommunicator job functions.

### **Successes:**

- RiverCom 911 was successful in receiving voter approval for 1/10<sup>th</sup> of 1% sales and use tax to help support 9-1-1 in our communities.
- All RiverCom 911 Telecommunicators are Call Receivers as well as cross-trained in Law and Fire/EMS dispatching.
- RiverCom 911 has worked closely with Okanogan County to have a CAD to CAD call sharing platform.
- With the support of our local Medical Control, RiverCom 911 has had high success rates in the implementation of highly efficient CPR and rapid coordinated dispatching of critical responders which has resulted in a significant increase to witnessed cardiac arrest survival rates in Chelan and Douglas Counties.
- RiverCom 911 joined the host-remote phone consortium with four other agencies to consolidate 9-1-1 call delivery, reduce technology and equipment costs to the State E911 Program.
- RiverCom 911 maintains and operates a two-county radio system providing the largest expanse of coverage in the state of Washington.



Pencom 9-1-1 is located in Port Angeles, the largest city in a very rural, low-population-density County with rugged mountainous terrain along an equally rugged coastline. There are three incorporated cities in the County; Port Angeles, Sequim and Forks. The City of Port Angeles is the gateway to the Olympics and hosts a ferry terminal that services international traffic to Victoria, B.C. In 1890 Port Angeles was dubbed the “Second National City”, second to Washington D.C. Clallam County has a rich Native American history and has four distinct surviving tribes that add significant cultural diversity to the county and provide ongoing support to the greater community.

Clallam County hosts several renowned festivals and events each year to include the Juan De Fuca Festival of the Arts, Crabfest, Arts and Draughts, the Discovery Marathon, the Lavender Festival and Irrigation Festival in Sequim. These events bring in 10’s of thousands of visitors each year. Hurricane Ridge in the Olympic National Park is also a major destination especially during the summer months. The National Park estimates some three million visitors to the park each summer.

The Port of Port Angeles is the first full-service port available to ships coming into the Strait of Juan de Fuca, en-route to the Puget Sound and points north. Three deep-water marine terminals can accommodate a variety of vessel types and can handle and store forest products, containers and heavy-lift project cargo. The Port also owns terminals used for ferry service and other marine-related activities. There are two USCG air bases supporting the community and a large border patrol presence in county.

There are approximately 200 miles of coastline with the Pacific Ocean bordering the west end of the county and the Strait of Juan De Fuca bordering on the north. Much of the county is comprised of the National Park, National Forest and DNR lands.

Pencom 9-1-1 is a department within the City of Port Angeles under the Port Angeles Police Department. An Advisory Committee made up of members of the seventeen agencies served provides guidance and direction for the agency. Each agency is responsible for their own radio infrastructure and for providing signal into the 9-1-1 center. Pencom manages their mobile data and dispatching services. Revenues come from a 1/10<sup>th</sup> of 1% sales and use tax, phone excise tax and user agency contributions.

## CLALLAM COUNTY

Population: 75,474

Area: 2671 Square Miles

1 PSAP

17 Fire/EMS/Law agencies

16 Telecommunicators

4 Supervisors

4 Admin/IT/Support

**2019**

Call for service: 92,379

911’s received: 36,657

Business calls: 118,080

Budget: \$2.7 million

Revenue: mix of phone excise tax, 1/10<sup>th</sup> of 1% sales/use tax, user fees, and State Grant.



#### **Successes:**

- Clallam County successfully passed the 1/10<sup>th</sup> of 1% sales and use tax to help support 9-1-1 in our community.
- Pencom is a consolidated 9-1-1 center that combined the original four 9-1-1 centers in the City of Port Angeles, Clallam County, Sequim and Forks.

#### **Challenges:**

- Finding dedicated funding to help reduce the need for State funds and user agency fees.
- Pencom struggles with recruitment, hiring and successful retention of new Public Safety Telecommunicators and turnover often results in unsustainable overtime and additional stress on current employees.
- Due to a large Federal and State presence, property tax revenue is applied to only a small percentage of land.
- Radio and cell phone coverage is a significant operational challenge as well as lengthy emergency response times to calls, requiring call takers, when available, to stay on the line with callers.

#### **Efficiencies:**

- Clallam and Jefferson currently cross train and share IT support between the two centers.
- A single merged CAD platform is being updated that will allow both counties to share call data, mapping and field data between both counties.
- Creating redundant CAD, radio and telephony has allowed both counties to eliminate costly back-up centers and rely on each other for functional back-up capacity.
- Jefferson County has cross-trained staff that can work in Clallam County in times of critical need.

## Clark County



**CLARK REGIONAL  
EMERGENCY SERVICES AGENCY**  
*Always here, always ready.*

**710 W. 13th Street  
Vancouver, WA 98660  
(360) 737 - 1911  
cresa911.org**

Clark Regional Emergency Services Agency (CRESA) is located in Clark County. The agency serves an estimated population of 488,241 over 656 square miles. The county has an urban center in the southwest and moves into a suburban to rural area towards the northeast. The largest city is Vancouver with an estimated population of 184,000. The County is surrounded by rivers on three sides, including the Columbia River to the South and West; and on the north by the North Fork of the Lewis River. The landscape and climate of Clark County are determined by its placement between the Pacific Coast and Cascade mountain ranges where glaciation helped form a U-shaped valley which meets the Columbia River as it leaves the Columbia River Gorge to the east.

CRESA is created as separate legal entity under the agency's Interlocal Agreement (ILA); and is formed as a governmental administrative agency pursuant to RCW 39.34.030(3). CRESA is governed by an Administrative Board comprised of nine members including the Clark County Administrator or designee, Vancouver City Manager or designee, Clark County Sheriff or designee, Small Cities Representative appointed by the small city mayors, Police Representative appointed by the Law Enforcement Council, Vancouver Fire Department Representative, Fire Chief Representative appointed by the Clark County Fire Chiefs Association, Public EMS Provider Representative, and a Citizen Representative employed in the field of finance. CRESA is divided into four main Divisions each administered by a Division Manager who reports to the agency's Director. These Divisions include: 9-1-1 Operations, Technical Services, Finance, and Emergency Management. The Director is appointed by and reports to the CRESA Administrative Board. The Director's key responsibilities include: overseeing and administering the Agency programs and policies; preparing a proposed annual work plan and annual budget for consideration and adoption by the CRESA Administrative Board, and negotiating and executing any contracts for services.

Based on the ILA, all equipment acquired for the support and operations of CRESA shall be under the ownership of CRESA upon full payment of any outstanding debt related to such facilities, equipment and property. This includes, but is not limited to the radio infrastructure in the county including towers, base stations, repeaters, and network and radio consoles in the PSAP, with the exception of the building located at 710 West 13<sup>th</sup> Street, Vancouver, Washington and the antennae tower sites property located in Washougal and Livingston Mountain.

### Successes:

- Maintained continuous accreditation as a Medical Accredited Center of Excellence since 1993;
- Maintained continuous CALEA Public Safety Communications Accreditation since 2002;
- Maintained continuous APCO Project 33 Training Program Certification since 2013;
- Installation on NG911 System in 2015;

## CLARK COUNTY

**Population:** 488,241

**Area:** 656 Sq. Mi.

**PSAP:** 1

**Fire/EMS/Law Agencies:** 26

### **Staff:**

Telecommunicators 45

Supervisors 6

Admin/IT/Support 17

### **2019 Calls for Service:**

911 Calls 243,308

311/Non-Emrg. Calls 151,749

Out-going Calls 125,338

**2019 Budget:** \$12.6 million

**Revenue:** mix of phone excise tax, user fees, tower leases and Grants.

- Implemented Text-to-911 in 2016; Implemented Smart 911 in 2016;
- Completed P25 Radio System with a redundant dynamic system resiliency master site in 2017;
- Implemented WAVE unified communication between devices and networks as an alternate or adjunct to radios in 2018; Implemented Mobile Responder for use on smart devices in 2018;
- Established ESINet cut over to the State's Emergency Service Internet Protocol Network in 2019.

### **Challenges:**

- **Increased Demand for Services** - In 2017, staff completed an Environmental Scan. This Scan estimates an increase in the demand for services to just over one percent annually. Yet, this estimate is most likely on the conservative side, since it does not take into account an aging population that has a higher need for emergency medical response. In addition, this estimate also does not factor in the potential for increased law enforcement response due to a potential for a slower rate of growth in the median household income, a growing homeless population and the lack of local case management and mental health services. The impacts from these demographics will need to be closely monitored to more accurately determine actual demand for service in the future.
- **Increased Technologies** - Increased technology, both within the agency and community, will require CRESA to develop a funding model that accounts for unplanned failures and scheduled replacements. CRESA will also need to plan for the vulnerabilities from a growing technology dependent infrastructure. Finally, expanding technology will also increase a dispatcher's need for training and time on task due to text and video to 9-1-1. There is also the potential for increased staff turnover as the type of person who does well in a technologically sophisticated work environment is different than the workforce of the past.
- **Budget and Fiscal Management** - Like much of the nation, the local economy has been negatively impacted by COVID-19. Close to 50% of CRESA funding comes from agencies that rely on sales and property taxes. While actuals to-date are not as bad as initial revenue models predicted, CRESA has left vacant positions in the Administrative and Technical Services Division unfilled to minimize the fees charged to these agencies. Further budget cuts will be dependent on the local economy's recovery from COVID-19.

### **Efficiencies:**

- CRESA has been a regional provider of consolidated 9-1-1, emergency communications and emergency management services since 1976.
- In 2013, CRESA began work with others PSAPs on the "NG9-1-1 Host/Remote Upgrade Project" and went live in 2015. This project provides the necessary update to the NG911 software and hardware in order to maintain the geographically diverse IP-based call handling System whose goals include: 1) merging and sharing IP network technologies and interconnection between existing networks; 2) lowering costs by reducing equipment duplication, maintenance and services; and 3) promoting resiliency, survivability and disaster recovery. These agencies include: Thurston 9-1-1 Communications (TCOMM); CRESA; Wahkiakum 9-1-1 with back-up locations at Lacey Fire Department in Thurston County; and Washington State Patrol in Clark County. This system is being updated and expanded in 2020 and will include Rivercom 911 serving Chelan and Douglas counties.
- In 2020, CRESA consolidate Technical Services support and CAD systems with Cowlitz 9-1-1 to lower costs by reducing equipment duplication, maintenance and services.





## *Columbia County Public Safety Communications*

Director

Ashley Strickland

### STATISTICS

In southeastern Washington, Columbia County has a population of 4,064 (in 2000), making it one of the more sparsely populated of Washington's 39 counties. At 868.8 square miles, it is the ninth-smallest county in the state. It is bordered by Whitman County and the Snake River to the north, Walla Walla County to the west, Garfield County to the east, and the Oregon state line to the south. The mainly agricultural county was carved out of Walla Walla County in 1875. It is known for asparagus, green peas, and especially wheat, with ranching and logging also playing a significant role. Agriculture and food processing still dominate the economy, with manufacturing and government representing the majority of the county's nonagricultural employment. Dayton, the largest town and county seat, recorded a population of 2,655 in the 2000 Census. Dayton is well known for the historic preservation of its downtown.

Northern Columbia County has rolling hills and valleys, with its lowest elevation of 504 feet on the Snake River on its northern border. Farther south, the terrain becomes rugged and forested, with the Blue Mountains rising to 6,401 feet at Oregon Butte in the county's southern part.

Columbia County offers a wide variety of tourist attractions, including boating on the Snake River, hiking during the summer or hitting the slopes at Bluewood Ski Resort during the winter, fishing, wine tasting or visiting the Depot, which is the oldest surviving railroad station in Washington.

Columbia County is also home to the oldest working courthouse in Washington and the country's oldest continuously operating jail. Built-in 1887, it is on the National Register of Historic Places. The majestic courthouse also accommodates the county's Sheriff's Office, Jail, Emergency Management, and Dispatch among county courtroom and business offices.

**Successes, challenges, efficiencies pending.**

Population: 4,064  
Area: 868.8 Square Miles  
1 PSAP  
8 Fire/EMS/Law agencies/Fish and Wildlife/Forest Service/WSP  
8 Telecommunicators  
2 Supervisors  
1 Director  
1 Admin/IT/Support

#### **2019**

Call for service: 8360  
911's received: 819  
Business calls: 7541  
Total Calls 16,720  
Budget: \$975,000  
Revenue: mix of phone excise tax, 1/10<sup>th</sup> of 1% sales/use tax, user fees, and State Contract.



Cowlitz County

**COWLITZ 911**

**Police • Fire • Medical**

Hall of Justice-Basement  
312 SW 1<sup>ST</sup> Avenue  
Kelso, Washington 98626  
[www.Cowlitz911.org](http://www.Cowlitz911.org)

Cowlitz 911 Public Authority is located in Kelso, WA, and serves the Lower Columbia region and one of the Northwest's best out-door playgrounds which offers fishing, hunting, hiking, camping, boating, mountain climbing, and skiing. Conveniently located between Portland, Oregon and Seattle, Washington on the I-5 corridor, Cowlitz County is the 13th largest out of the 40 counties in Washington State and is home to approximately 108,950 residents. The county covers 1,166 square miles within Washington's south-western region, and offers residents a comfortable, small-city lifestyle while having access to big city recreational and cultural opportunities. Within an hour's drive of the Pacific Coast and home to some of the most prominent mountains in the Cascade Range, residents can enjoy a wide variety of outdoor activities year-round including kayaking, boating, water sports, and swimming, as well as golfing, hiking, camping, hunting, snowmobiling, and cross-country skiing. Only an hour drive south, the City of Portland offers an international airport, chain and boutique hotels, exceptional food options, and plenty of shopping.

The City of Kelso, the Cowlitz County seat, offers a number of attractions, including the Three Rivers Mall, lodging, dining, and the Three Rivers Golf Course, which is the only 18 hole golf course constructed on volcanic ash from Mount St. Helens. The Mount St. Helens Volcano and Information Center, located at the Kelso Chamber of Commerce, provides visitors with many displays and exhibits of the mountain for their enjoyment.

The County's largest city, Longview, has a population of approximately 38,100 and has a small-town atmosphere that is very appealing to residents and visitors alike, offering a safe, comfortable and inviting gathering place with shopping, restaurants, theatre, galleries and beautiful streetscapes. Longview is the major retail center in Cowlitz County and for the cities of St Helens, Rainier, and Clatskanie, Oregon along the Highway 30 corridor bordering the Columbia River.

To the south, the City of Kalama is famous for its Chinook, steelhead, and sturgeon fishing. Along the eastern border of the County lies Mount St. Helens which famously erupted in 1980. Today, Mount St. Helens offers unmatched views, camping and hiking opportunities of all difficulties.

## **THE ORGANIZATION**

Cowlitz 911 is a Public Authority governed by an Executive Board consisting of 9 members from the public safety community and local government agencies to include, Police Chiefs, Sheriff, City Managers, Fire Commissioners, Fire Chiefs, and County Commissioner. Cowlitz 911 is funded through a State E911 phone excise tax, E911 State Office professional development contract, a county 1/10<sup>th</sup> of 1% sales tax, and police and fire user fees with an annual budget of approximately 5 million.

Cowlitz 911 owns the public safety radio system infrastructure. Responsibilities include radio operations management, maintenance, repairs, and improvements at 10 radio sites throughout Cowlitz County and Columbia County Oregon.

The Cowlitz 911 Center serves as the primary Public Safety Answering Point (PSAP) and 911 emergency dispatch center for thirteen (13) law enforcement, fire and medical response agencies in Cowlitz County. The organization covers over 1200 square miles and serves a population of 108,950 citizens. The organization answer an average of 210 emergency 911 calls and 400 business calls per day.

The 2020 Operations budget for Cowlitz 911 is \$4.2 million. The organization budgets for 23 FTE call-taker/dispatchers, and 6 administrative personnel including an Executive Director, a Human Resource Generalist, an Information Technology Vendor Technical Manager, a Floor Supervisor, a Finance/Admin Specialist, and a Public Disclosure Coordinator Administrative Assistant.

## **CHALLENGES & OPPORTUNITIES**

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**Recruitment/Retention:** While this is not unique to Cowlitz 911 recruiting and retaining qualified candidates continues to be a challenge industry wide.

**Funding and Evolving Technologies:** The volume and complexity of rapidly evolving technologies and services, in addition to the expectations of consumers, wireless communications industry, NG911 nationwide services, digital services, 3<sup>rd</sup> party vendors, replacement of obsolete and unserviceable technology, NG911 implementation, maintenance, security and operations of a variety of systems now requires a dedicated funding stream and the resources, training, and knowledge to support such systems. This is an enormous fiscal challenge for small and moderately sized community.

**Public Disclosure/Unfunded Mandates:** Over the past several years demands for public records has increased substantially, this has created another fulltime position in our communication center.

With the implementation of unfunded legislative mandates related to call receiver training requirements, a variety of digital location identification improved accuracy, wireless location Identification, ability to process data through IP and broadband systems, network redesign, has fiscally and technically become an increased burden on PSAP's.

**Construction of New Facility:** Cowlitz 911 is currently located in the basement of the HOJ in Kelso, the facility is below the flood plain and adjacent to the Cowlitz River. The 911 facility was previously a basement garage parking area and firing range, and over 30 years ago was converted into a County wide combined 911 Center and EOC. Cowlitz 911 is in the process of building a new 911 Communications Center/ Planning and design for the new facility is complete, and construction is scheduled to begin in January 2021. Financing of the project will be accomplished with the sale of general obligation bonds with debt service commitment from the .01 sales tax revenues approved in 2016.

**Radio System Improvements:** Cowlitz 911 is in the process of a Motorola VHF simulcast radio system upgrade multiple established sites, and planning construction of 2 new radio sites. Over the past five years, Cowlitz 911 has invested over 1.7 million in replacement of legacy radio equipment, and will currently invest another 1.2 million to complete additional improvements and replacements, while expanding Cowlitz 911's radio coverage footprint. Over the next 5 years Cowlitz will invest an additional 3 million as we continue to replace critical legacy public safety radio equipment at our 10 radio sites.

A Motorola MCC 7500 Radio Console replacement was also completed in 2020. Additionally, the ECW 911 phone system- Motorola product is due for a CPE replacement or upgrade in the next 12-18 months.

**CAD implementation:** Cowlitz 911 has begun the first phase of a CAD, (computer aided dispatch), replacement. The organization is transitioning from a legacy Intergraph CAD to a state of the art Spillman FLEX CAD. The project is underway and expected to be completed in March of 2022.

**New Facility Hiring/Contracting:** With the 911 operations relocating from a County owned and maintained facility to a new standalone facility, creates some gaps in facility maintenance and technical support.

Cowlitz 911 will need to either employ or contract with a network specialist to manage the new public safety network at the new site, business phone system, CAD administrator, and NG911 technologies, and will need to either employ or contract for services including building and grounds maintenance and janitorial services at the new facility.

## Ferry County



*Terri Sebree*

E911 Coordinator  
175 N. Jefferson  
P.O. Box 1094  
Republic, WA 99166  
(509) 775-3136  
(509) 775-1076 FAX

Email: [e911coord@co.ferry.wa.us](mailto:e911coord@co.ferry.wa.us)

### Ferry County

Ferry County 9-1-1 is located in northcentral WA, a very rural, low-population-density County. The single incorporated city, Republic, is an historical mining, ranching and logging community. Curlew Lake State park attracts many guests during the summer months. The Columbia River along with the National Forests and DNR land brings outside enthusiast looking for hunting, fishing, camping and hiking.

Ferry County 911 has user agreements between 3 Fire, 1 Law, 3 EMS and 2 other departments, as well as responding to all administration calls that come into the Sheriff's Office. This requires 911 fund assistance, user fees and phone excise tax. Our Telecommunicators are cross trained for call taking, dispatching and records management.

Approximately 50% of Ferry County's 2257 square miles is part of the Colville Confederated Tribes. Of the remaining 50% 20 plus percent is federal or state land. There is approximately 18% that is potentially taxable land to support the required services.

### Challenges:

- Radio and cell phone coverage is a significant operational challenge
- Lengthy response time for emergency services require callers to



remain on the line with dispatchers when available.

- Ferry County struggles with recruitment, hiring and successful retention of Public Safety Telecommunicators, the turn over often results in excessive overtime and additional stress on current employees.

## FERRY COUNTY

Population: 7649

Area: 2257 Square Miles

1 PSAP

7 Fire/EMS/Law agencies

7 Telecommunicators

1 Supervisors

2 Admin/IT/Support

### 2019

Call for service: 5502

911's received:1141

Business calls: 34794

Budget: \$787,788

Revenue: mix of phone



## Franklin County

### Franklin County

The largest city in Franklin County is Pasco with an estimated population of 75,432. The City of Pasco is where the Franklin County was formed in 1883 and is named after Benjamin Franklin. It is located in Eastern Washington and consists of 1,242 square miles, or 795,000 acres. In 2014 the population of Franklin County was 87,809 - a 78% increase since 2000, and in 2019 the population estimate was 95,222 making Franklin County one of the fastest growing counties in the nation.



*Franklin County Courthouse*

historical courthouse and seat of the county government is located for Franklin County. The other incorporated cities in Franklin County are Connell, Mesa, and Kahlotus. The City of Pasco, along with the City of Kennewick and the City of Richland located in Benton County, are collectively referred to as the Tri-Cities. Franklin County is bordered on the west by the Columbia River and much of its eastern border is along the Snake River and the Palouse River.

Franklin County is primarily an agricultural community and much of the industry involves growing and processing food. There is also a Washington State prison, Coyote Ridge Correctional Center, located within the city limits of the City of Connell in the north end of the county.

Residents, and visitors, have a variety of outdoor recreational opportunities with the rivers, lakes, campgrounds, and the Juniper Dunes Wilderness area operated by the Bureau of Land Management. Franklin County is also home to Palouse Falls, the official Washington State waterfall.

Prior to 2018, the Franklin County Sheriff's Office operated a dispatch center at the Franklin County Courthouse that provided services for all law enforcement, fire, and emergency medical in the county. In August 2018, after several years of negotiation and planning, Franklin County and Benton County merged their respective PSAPs under one roof. The Franklin County Dispatch Center was closed and all calls started going to the Southeast Communications Center (SECOMM) at their Benton County site.

Much of the equipment, as well as the CAD software, in the Franklin County Dispatch Center was outdated so it made financial sense to consolidate at that time. All the Franklin County employees who wanted to do so, were transferred to SECOMM.

The consolidation required some adjustment for the agencies in Franklin County, but two years later things are going well and everyone has adapted to the changes in procedures. The fire departments in the two counties have always assisted each other on calls and the law enforcement agencies also work closely together. Being dispatched through the same dispatch center just improves the process.

The citizens of Franklin County living in the rural areas should not be able to see any impact to their services, but some of those people living in the Tri-Cities area benefit from the change because their 911 calls (when using cell phones) are no longer misdirected to the wrong PSAP as was often the case before the consolidation. The people in Benton and Franklin Counties are also used to seeing the two county governments work together to provide services for the benefit of the community and public safety.

**Successes and Efficiencies:**

In August of 2018, Franklin County consolidated 911 call receiving and dispatch services with SECOMM in Benton County. This action increased the communication between the agencies in the two counties and also addressed the problem of 911 calls made on cellphones going to the wrong PSAP.

Although the VHF radio system in both Benton and Franklin County are in need of update, they have been connected to allow better coverage and interoperability.

**Challenges:**

The VHF radio system in Franklin County is owned by the County and used for law enforcement, fire, and emergency medical communications. This system is aging and needs to be replaced. Finding the funding is a challenge.

Law enforcement in Benton County operates on an 800 MHz radio system that is maintained by SECOMM. To connect the law enforcement agencies in the two counties, the system relies on a patch. The proper solution would be to build out the 800 MHz system in Franklin County, but funds are not currently available.

With law enforcement and fire on two separate systems, communications between the groups can be challenging.



*Palouse Falls*



# GARFIELD COUNTY *Washington*



Garfield County 911 is located in Pomeroy, a rural agricultural community located in the southeastern portion of Washington State. It borders Columbia County on the west, Whitman County on the north, Asotin County on the east, and Wallowa County, Oregon on the south. Garfield County is 718 square miles with 7.5 square miles being water and 149 square miles being part of the Umatilla National Forest.

Garfield County is unique in many ways, one of which is that it is the only county in Washington State to have had its county seat declared by an act of the United States Congress.

Present day Garfield County has the distinction of being home to a portion of the Nez Perce Trail as well as a camp site for the Lewis and Clark expedition on May 3, 1806. The Lewis and Clark Trail-Travois Road was added to the National Register of Historic Places in 1974.

The Garfield County Courthouse, where the Sheriff's Office/911 Communications Center is located, is also on the National Register of Historic Places.



## Grays Harbor County

Grays Harbor Communications

Grays Harbor Communications (GHCC) is located in Grays Harbor County. Grays Harbor County is located on the Southwest corner of the Olympic Peninsula along the Pacific Ocean.



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Center

the

## GRAYS HARBOR

Population: 75,061

Area: 2,224 square miles

1 PSAP

11 Law Agencies

19 Fire/EMS Agencies

16 Telecommunicators

4 Supervisors

5.5 Admin/IT

2019

Call for Service: 138,710

911 Calls Received: 69,079

Business Calls: 70,571

Budget: 3,524,160

Revenue:

1/10<sup>th</sup> of 1% sales/use tax, user fees, excise tax, State E911 funding

As Grays Harbor tourism states, "In no other county can you stick your toe in the Pacific Ocean one hour, and the next hour, be in the lush rain forest." The cities of Aberdeen, Hoquiam and Cosmopolis are considered the economic hub and where half of the county's population lives. Grays Harbor hosts 50 miles of beaches and tourists enjoy the cities of Ocean Shores, Westport, Ocean City and Seabrook. Grays Harbor heritage is rich in timber and sea history. Hoquiam hosts the 7<sup>th</sup> Street Theater, which is an historic, atmospheric theater that seats more than 1,100 people for the enjoyment of amateur and professional concerts and plays. The East County hosts the cities of Elma, Montesano, McCleary and Oakville. Montesano is the county seat of Grays Harbor County. If you love the outdoors, Grays Harbor is a destination for hiking, hunting, fishing, being on the beach, plus camping.

Grays Harbor economic struggles stem from the loss of their main industry which was timber. Grays Harbor port, once the largest export port for U.S. grown timber, now leads the U.S. in exports of American grown soybean meal and is the number one seafood landing point in Washington State.

GHCC is an Inter-Local Governmental agency with agreements between 11 Law agencies and 19 Fire agencies. In addition to providing 911 and dispatch services, GHCC maintains the radio infrastructure in the county. While the tower sites are leased, the equipment is owned by GHCC.

### Successes:

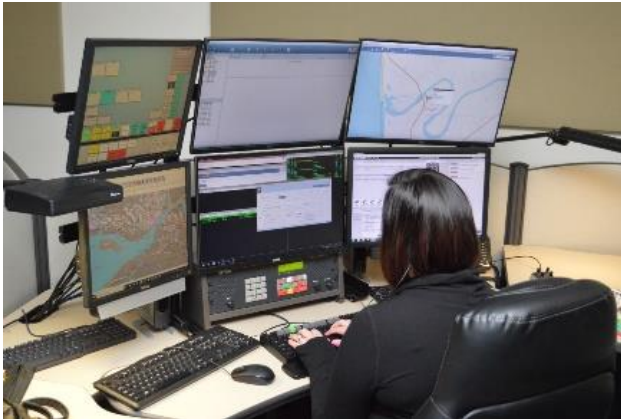
- GHCC successfully passed 2/10<sup>th</sup> of 1% sales and use tax to help support 911 and the radio infrastructure.
- Unified CAD system with user agencies which allows seamless transition from CAD to reporting system.
- Consistently provide outstanding service to our citizens and user agencies
- Successful EMD program
- Implemented Text – to- 911
- Ability to deal with the challenges of COVID; such as board meetings via video conference, training, working remote as necessary

Challenges:

- Dedicated funding to properly maintain and improve infrastructures
- GHCC struggles with recruitment, hiring and successful retention of new Telecommunicators which leads to high rate of overtime and additional stress on employees
- Aging facility with poor location
- Limited Administrative staff to handle Public Disclosure Records, IT maintenance and QA program
- Supervisors are working consoles full time

Efficiencies:

- Telecommunicators are cross trained for all positions.
- Integration of CAD, Phone and Map systems
- With limited staff, GHCC is very efficient
- Ability to handle neighboring PSAPs phones during emergencies





## Jefferson County



Jeffcom 9-1-1 is located in Jefferson County, a very rural, low-population-density County with rugged mountainous terrain along an equally rugged coastline. The single incorporated city, Port Townsend, is an historical maritime community with many historical structures, supporting a beautiful community dedicated to the arts. Fort Worden Historical State Park, hosts many festivals and events drawing tens of thousands of guests to visit Port Townsend each spring, summer and fall. With limited accessibility to Port Townsend, the Washington State ferry terminal connects the peninsula with Whidbey Island.

Indian Island, just south of Port Townsend, is a major ammunitions depot for naval and coastguard ships in the Pacific Northwest. The PSAP partners with the facility for responses on and off the base.

Mountain search and rescue and water rescue are frequent calls in an area famous for outdoor recreation. The Olympic National Park and Olympic National Forest occupies 60% of the county and hosts over 3 million guests a year creating a high call volume from cell phone users who often don't know their location or are non-English speaking visitors.

Jeffcom 9-1-1 is an Inter-local governmental agency with agreements between five fire and two law user agencies and has limited local funding. This requires State 911 fund assistance, significant user fees and revenue from leased radio tower space.

In addition to providing 911 and dispatch services, Jeffcom 9-1-1 owns and maintains the complete radio infrastructure in the county including towers, base stations, repeaters, and network and radio consoles in the PSAP.

### **Successes:**

- Jefferson County successfully passed the 1/10<sup>th</sup> of 1% sales and use tax to help support 9-1-1 in our community.
- Jeffcom 9-1-1 has taken over emergency radio network and tower ownership, and maintenance for its user agencies.
- Jeffcom 9-1-1 successfully became a stand-alone 9-1-1 center representing all of its user agencies with a governance model that has sustained it.

### **Challenges:**

- Finding dedicated funding to help reduce the need for State funds and user agency fees.

## JEFFERSON COUNTY

Population: 31,234

Area: 2183 Square Miles

1 PSAP

7 Fire/EMS/Law agencies

10 Telecommunicators

2 Supervisors

5 Admin/IT/Support

### **2019**

Call for service: 35,121

911's received: 22,278

Business calls: 29,542

Budget: \$2.1 million

Revenue: mix of phone excise tax, 1/10<sup>th</sup> of 1% sales/use tax, user fees, tower lease and State Grant.

- Jeffcom 9-1-1 struggles with recruitment, hiring and successful retention of new Public Safety Telecommunicators and turnover often results in unsustainable overtime and additional stress on current employees.
- Due to a large Federal and State presence, property tax revenue is applied to less than 5% of the county.
- Radio and cell phone coverage is a significant operational challenge as well as lengthy emergency response times to calls, requiring call takers, when available, to stay on the line with callers.

**Efficiencies:**

- Clallam and Jefferson currently have a single administrative team supporting both counties.
- A single merged CAD platform is being updated that will allow both counties to share call data, mapping and field data between both counties.
- Creating redundant CAD, radio and telephony has allowed both counties to eliminate costly back-up centers and rely on each other for functional back-up capacity.
- Clallam and Jefferson currently have a single administrative team supporting both counties.
- Jefferson County has cross-trained staff that can work in Clallam County in times of critical need.

## King County



# King County

King County is the largest county in Washington state and 12th largest in the United States. It has a diverse population of approximate 2,252,782 (2019). Puget Sound and the Cascade Mountains border to the east and west. Urban and rural communities support many activities that bring over 40

million visitors to the area, including Seattle as the largest city in King County with a population of 753,675 (2019).

There are twelve (12) 911 centers called Public Safety Answering Points (PSAPs) or Emergency Call Centers (ECC). The centers work either for a local governmental agency or under an Inter-Governmental Agreement serving multiple agencies. Three (3) PSAPs answer calls and dispatch for law, fire, and emergency medical services (EMS) while the remaining nine (9) perform those functions for only fire/EMS or law enforcement. Washington State Patrol provides dispatch service to state and federal law enforcement agencies.

Over 500 Telecommunicators answer more than 1.8 million 911 calls each year. All PSAPs answer wireline & VoIP 911 calls for their jurisdictions. Four (4) PSAPs answer all wireless (cellular) calls, which are then transferred to the appropriate PSAP.

King County E911 Program Office supports the PSAPs with networking, equipment, and service delivery of the 911 calls. It funds the 911 system and provides funding to the PSAPs for WAC eligible, 911 related costs. The 911 excise tax does not fund the dispatching process, which includes radio infrastructure and dispatch support services. PSAPs are reliant on other funding sources either within their own governmental structure or from charging users fees for service.

## KING COUNTY

Population: 2,252,782 (2019)

Area: 2,132 Square Miles

1 Program Office

12 PSAPs

80 Fire/EMS/Law agencies

500 Telecommunicators

### 2019

Call for service: ??

911's received: 1,881,211

Business calls: ??

2018 Revenue: \$99,868 Mil

2018 Expenditures: \$106,247 Mil

Revenue: mix of phone excise tax, user fees, municipality general fund, grants, etc.



### **Successes:**

- King County maintains a Test PSAP which allows for software application testing before deploying in a live environment both in King County PSAPs and other PSAPs statewide.
- Deployment of security for Text to 911 set a new national security standard.
- A comprehensive and collaborative strategic plan was developed by many stakeholders in King County and approved by the King County Council in January 2018 identifying:
  - an advisory governance structure supporting the E911 Program Office
  - development of funding options to address financial needs
  - technical direction to develop a single platform architecture, creating greater efficiencies and interoperability in the delivery of 911 calls
- Development of public education and training strategic objectives to support outreach in multiple languages impacting people of all age groups, ethnicity and of different cultures.
- The E911 Program Office and Regional Advisory Governing Board (RAGB), comprised of representatives from each PSAP, share a strong, supportive relationship with each other. They work closely on all issues relating to 9-1-1, including technical and financial issues and concerns. This ensures a resilient and reliable system is available to serve their communities.
- There are redundant back up facilities for each PSAP located at other PSAP's within King County.

### **Challenges:**

- Increasing needs of technology, support staff and costs of each with limited funding has created a fiscal cliff for the 911 program. PSAPs are required to use other government funds or charge user fees to support their services. Dedicated funding is needed to support all aspects of emergency communications, from the call maker to the field unit response.
- Recognizing Telecommunicators as first responders instead of clerical staff is a step to help with recruitment, hiring and successful retention of Public Safety Telecommunicators. Consistent staff turnover results in unsustainable overtime and additional stress on current employees.
- Multiple single discipline agencies require transferring caller's one or more times for the appropriate assistance. Current platform has not allowed for cellular calls to be properly routed to individual PSAPs resulting in increased number of transfers and increased cell volume to the 4 agencies who are receiving those initial calls.

### **Efficiencies:**

- Several agencies have similar Computer Aided Dispatch (CAD) systems providing opportunities for redundancy and data sharing between agencies.
- Real-time Agency Activity Display and Reporting (RAADAR), developed by one PSAP and shared with others, allows for greater situational awareness of incidents and unit status in the county. This reduces workload on PSAP staff and reduces radio traffic among the public safety agencies.
- Technical teams and staff work together to develop and deploy new technologies.
- Training opportunities are provided for Telecommunicators around Washington State.
- PSAP staff from multiple agencies support and engage in outreach to teach their communities about 9-1-1.
- The E911 Program Office moved into the King County IT division bringing more technology expertise to the team.

## Kitsap County



Kitsap County is located on the northern end of the Kitsap Peninsula, nestled in the Puget Sound between Hood Canal and Admiralty Strait. It is positioned between the Olympic Peninsula to the west and King County to the east. Water transportation is dominant in the culture and economy of the county.

Kitsap County is one of the smallest counties in the state in terms of land area, at about 395 square miles (566 square miles total area). However, it ranks third in the state in terms of population density, with 636 people per square mile. Kitsap County has over 250 miles of saltwater shoreline and is home to Naval Base Kitsap. NBK is host command for the Navy's fleet throughout West Puget Sound with four geographically separated locations (Bangor, Bremerton/Puget Sound Naval Shipyard, NUWC Keyport and Manchester Fuel Depot). Kitsap 911 is the County's primary PSAP, but the Navy's Regional Dispatch Center (RDC) and Washington State Patrol's Bremerton Communications Center are also located here.

Kitsap 911 (CENCOM) was founded in 1973, to improve emergency medical dispatching within Kitsap County and was reorganized as a Public Authority (RCW 25.21.730) in 2015. Since our founding, Kitsap 911 has continued to develop a culture of innovation and adaptability. In 1976 CENCOM went live as the first consolidated police, fire, and EMS dispatch center in Washington State. In 1983 CENCOM became the second dispatch center in Washington State to deploy "enhanced 911." In 2015 we were the first in Washington to have text-to-911 capability. In 2020 we were one of the first 911 centers in the nation to begin taking and dispatching 911 calls remotely, the latter being an effort to safeguard our essential workers and critical 911 system in the face of COVID-19.

During the past 45 years, Kitsap 911 has pursued opportunities for growth and development which have enabled us to push for greater across all departments. Our goal is to provide seamless operations, cutting-edge technology, superb customer service, comprehensive coverage, and top training and staffing for the benefit of every family, visitor, business and community who comprise Kitsap County.

Technology is an ever-changing element of our organization. Our technology group consistently managed a heavy workload throughout 2019, accomplishing goals of data security, system upgrades, and new technology rollouts. So far in 2020, we've implemented remote 911 (giving our Public Safety Telecommunicators the ability to accomplish core call taking and dispatching functions from home), completed deployment of location based (GPS) Fire and EMS dispatching (sending the closest unit to high

## KITSAP COUNTY

Population: 271,473

Area: 566 Square Miles

3 PSAPS

Kitsap 911

14 Fire/EMS/Law agencies

61 Operations Employees  
(Public Safety

Telecommunicators &  
Supervisors)

6 Admin/Management

10 Technical Services

### 2019

Call for service: 269,866

911's received: 176,736

Business calls: 122,996

Budget: \$10.3 million

Revenue: Sales Tax (48%),  
Telephone Excise Tax (23%),  
Customer Agency Fees  
(24%), other miscellaneous  
revenue sources (5%)

priority events regardless of jurisdictional boundaries), begun deployment of a countywide digital fire station alerting system, and many other technology improvements, while primarily working remotely due to COVID.

Operations employees repeatedly amaze us with their ability to learn and then re-learn numerous policies, systems, and programs necessary to perform their jobs successfully. Change is not easy, but it is a huge element of working in a 911 environment.

Our Training group stepped up once again over the past year and made incredible things happen.

Emphasizing Kitsap 911's out-of-the-box solution for demands throughout the year, they delivered with new staffing configurations and flexible programs, including accomplishing continuing education training virtually without sacrificing quality or reducing the total number of CE hours offered.

All of these initiatives have contributed to Kitsap 911 being a stronger and faster 911 center that is more prepared for all the future holds. That does not mean we have not faced challenges. One challenge being Operations staffing demands like high overtime in order to backfill vacancies as well as covering training time. We continue to evaluate and re-evaluate our processes to combat these on-going concerns.

We find ourselves at a critical crossroads in terms of the ever-growing world of 911. Our current VHF radio system is far past its prime and no longer fulfills our needs. We have pushed this system as far as it can go and now must now deal with how we finance a digital radio system capable of accomplishing the needs of Kitsap 911, local law and fire agencies, as well as provide interoperability with our neighboring counties.

Implementation requires a \$30 million-plus investment. How do we finance such an improvement in Operations and Technology? Go out for bonds? Implement a new tax? And what about competing interests?

Innovation, inspiration, and integrity make us a vital contributor to the county. But in the years ahead, we expect to encounter and must resolve many challenges in order to continue providing the exceptional level of service for which Kitsap 911 has become known.

For more information about Kitsap 911 see our annual reports at [www.kitsap911.org/reports-statistics/](http://www.kitsap911.org/reports-statistics/)

**Successes:**

- Public Safety Communications Center accreditation from the Commission on Accreditation for Law Enforcement Agencies.
- Our employees have won 24 statewide and national awards over the past 8 years.
- First 911 center in Washington to implement text-to-911 and one of the first in the nation to deploy technologies that allow our public safety telecommunicators to work from home.

**Challenges:**

- Recruiting and retaining qualified employees.
- High overtime levels.
- Insufficient funding.
- Obsolete radio system.

**Efficiencies:**

- Resource sharing agreements with other local agencies to reduce costs overall.
- Leased space on Kitsap 911 owned towers and reciprocal agreements with neighboring agencies to offset maintenance costs.
- Core support services brought in house to reduce costs, improve efficiency, and increase responsiveness.
- Kitsap 911 serves as the host agency for multiple countywide/ multi-agency solutions.

## Kittitas County

KITTCOM is a civilian staffed 9-1-1 center that serves 17 public safety agencies in Kittitas County, Washington.



Kittitas County is in the center of Washington State. The county stretches east from Snoqualmie Pass to the Columbia River and south from Blewett Pass to just north of the Yakima/Selah area. The area is renowned for its recreational opportunities, including river rafting, fishing, hunting, hiking, skiing and snowmobiling.

KITTCOM is an Inter-local governmental agency with agreements between ten fire, two EMS and six law user agencies. Funding requirements are handled in large part via State 911 fund assistance, user fees and grants.

In addition to providing 911 and dispatch services, KITTCOM owns and maintains the complete radio infrastructure in the county and network and radio consoles in the PSAP.

### Successes:

- KITTCOM took the lead on modifying fire response plans during fire season which now allows more efficient dispatch of emergency resources and ensures enough resources are on scene to stop fire spread into the community.
- Hired staffing back to within two FTE of full staffing.

### Challenges:

- KITTCOM struggles with recruitment, hiring and successful retention of new Public Safety Telecommunicators and turnover often results in unsustainable overtime and additional stress on current employees.
- Secure funding in the wake of COVID-19 and increasing personnel costs.

### Efficiencies:

- GIS analyst position is now shared with the County to allow for better collaboration and cost savings.

## KITTITAS COUNTY

Population: 44,866

Area: 2,315 Square Miles

1 PSAP

18 Fire/EMS/Law agencies

14 Telecommunicators

2 Supervisors

8 Admin/IT/Support

### 2019

Call for service: 46,380

911's received: 30,291

Business calls: 58,331

Budget: \$2.2 million

Revenue: mix of phone excise tax, user fees, tower lease and State Grant



# Klickitat County



Klickitat County 9-1-1 is located in the county seat of Goldendale. Klickitat County is a very rural, low-population density County with both rugged mountainous terrain and low-lying prairie lands.



Klickitat County is ranked 30<sup>th</sup> in square miles among Washington’s 39 counties and is located in the south-central part of the state. The area was once home to the Klickitat and Wishram tribes, both of which ceded the land to

the U.S. government in 1855. There are three incorporated cities within Klickitat County, Goldendale is the largest followed by White Salmon and Bingen. There are several smaller unincorporated communities located within the county. The Columbia River Gorge defines Klickitat County’s southern border and is the state border between Washington and Oregon. Klickitat County is known for its great fishing, wind-surfing, as well as its excellent hiking trails and other outdoor recreation activities.

Klickitat County Department of Emergency Management (which manages 9-1-1 Dispatch), is a county department with inter-local agreements with 2 Law agencies, 18 Fire districts and 1 EMS district. We also serve the sheriff’s office (county office). Its budget revenue is made up from a mix of phone excise tax, user fees, tower lease fees, State 9-1-1 Grant and money from the county’s general fund.

In addition to providing 9-1-1 and dispatch services to the entire county, the Department of Emergency Management operates

## KLICKITAT COUNTY

**Population: 23,227 (2018)**

**Area: 1,904 Square Miles**

**1 PSAP**

**22 Fire/EMS/Law Agencies**

**9 Communications Officers**

**1 Lead Communications Officer**

**1 Administrative Assistant**

**1 Chief of Operations**

**1 Department Director**

**2019**

**Calls for service: 29,320**

**9-1-1’s received: 12,389**

**Non-Emergency calls: 83,966**

**Budget: \$1.5 million**

**Revenue: Mix of phone excise tax, user fees, tower lease, county general fund and State Grant.**





and maintains the County Public Safety Radio System, including 11 wireless communications sites across the county and 2 sites in Oregon linked by microwave and the radio dispatch system in the PSAP.

**Successes:**

- In 2012, the Klickitat County 9-1-1 Dispatch center was separated from the Sheriff’s Office management and moved under the purview of the Emergency Management Department. It is managed by a Department Director and a Chief of Operations who is in-charge of the daily operations of the 9-1-1 center.
- Klickitat County 9-1-1 Dispatch works in harmony with the 3 law agencies in the county and has a local users group that works together for the common goal of providing for public safety.
- Klickitat County 9-1-1 Dispatch moved into a newly constructed building with state of the art technology in 2014.
- For 2019 and the majority of 2020, Klickitat County 9-1-1 Dispatch was fully staffed with fully trained personnel.



**Challenges:**

- Finding dedicated funding to help reduce the need for State funds and user agency fees.
- Klickitat County 9-1-1 Dispatch at times struggles with recruitment, hiring and successful retention of new Communications Officers. This is partially due to the low population of the county and the surrounding rural areas as well as the finding of quality applicants within that population.
- Currently is staffed with 3 employees with over sixteen years of local experience, 2 with five years leaving 5 employees with less than four years’ experience. This causes a gap in local knowledge and experience within the communications center.
- Radio and cell phone coverage is a significant operational challenge as well as lengthy emergency response times to calls, requiring the communications officers, when feasible, to stay on the line with callers for extended periods. Also because of the cell phone tower locations, Klickitat County 9-1-1 Dispatch receives an abundance of calls from callers reporting incidents on the I-84 corridor in Oregon, which requires cooperation with Hood River, Wasco and Sherman counties for the transferring of those calls.
- Required knowledge of the surrounding area.

**Future Outlook:**

- Text to 9-1-1 Implementation by last quarter of 2021.
- Continued upkeep of the county’s radio system – 40 year cost projection in place.
- Looking for funding to increase staffing levels that have gone unchanged since 2012 even though workload has increased steadily over the last 8 years.
- Maintaining continuing education requirements for all personnel.

# Lewis County



Lewis County 9-1-1 Communications is located in Chehalis WA on the west side of Lewis County. Lewis County was the first county and is the sixth largest in Washington State. Lewis County has unique geography in that it is bordered by 8 counties and is much more populated on its West side than its East side. The population on the West side largely surrounds the Interstate 5 corridor, which sees an average of 40,000-80,000 vehicles daily. The Cascade Mountain Range borders the East side.

There are eight incorporated cities and one town within Lewis County. Centralia and Chehalis hold the highest populations. Centralia having a population of over 17,000 and Chehalis over 7,000 residents. Centralia and Chehalis, often referred to as “The Twin Cities”, are situated midway between Seattle and Portland. Centralia is home to a large number of antique, art and specialty stores as well as the first factory outlet center in the Northwest. These features make it a popular tourist-shopping destination. Centralia is home to Centralia Community College, which is the oldest continuously operating junior college in the state of Washington and now offers both two and four year degrees as well as certifications in a variety of technical trades.

The region offers many recreational opportunities including camping, hiking and boating. Some popular recreation destinations include Gifford Pinchot National Forest, Mount Rainier National Park, Pacific Crest Trail and access to Mount St. Helens National Volcanic Monument. Mount St. Helens is one of the most popular tourist destinations in the State and Lewis County serves as the gateway to the mountain’s North, East and South sides. Mountain search and rescue calls are frequent with callers often unsure of their location and having poor cell phone reception.

Lewis County 9-1-1 is an Inter-local governmental agency with agreements between 19 fire and 10 law user agencies and has limited local funding. This requires State 911 fund assistance and significant user fees.

### Successes:

## LEWIS COUNTY

Population: 79,604

Area: 2436 Square Miles

1 PSAP

7 Fire/EMS/Law agencies

10 Telecommunicators

5 Trainees

3 Supervisors

3 Administrative staff

IT/GIS support from County

### 2019

Call for service: 73,143

911’s received: 44,300

Business calls: 99,266

Budget: \$ 3.1 million

Revenue: mix of phone excise tax, user fees, and State Grant.



- Standing up of Emergency Back-Up Communication Center.
- Installation of Rapid SOS and ESChat.
- Completion of all policy re-format to CALEA standards.
- Spillman server replacement/upgrades
- Completion of dedicated training room

**Challenges:**

- Finding dedicated funding to help reduce the need for State funds and user agency fees.
- Recruitment, hiring and successful retention of new Public Safety Telecommunicators and turnover often results in unsustainable overtime and additional stress on current employees.
- Obtaining support to obtain additional tax revenue.
- Communications Center location is not ideal, currently located on the third floor of the Counties Historic Courthouse.





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Kelly Watkins*

*Chief Criminal Deputy  
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*911 Coordinator  
Jo Borden*

*Chief Civil Deputy  
Denise Liebng*

*Jail Superintendent  
Lyle Hendrickson*

Lincoln County is a rural county of 2400 square miles and has a population of nearly 11,000. Lincoln County's economy is dominated by wheat production and is the second largest wheat producing county in the nation. Livestock production is also an important component of Lincoln County agriculture income.

Lincoln County is bordered by Lake Roosevelt National Recreation Area on the north. This border creates a unique opportunity for many outdoor recreational opportunities including boating, fishing and camping. Lincoln County, with its four seasons and rural setting offers something for every outdoor sportsman including hunting, hiking, snowmobiling and cross country skiing.

The Lincoln County Sheriff's Office has a staff of 30 who serve the citizens of Lincoln County and provides Law Enforcement for the county and contracted law enforcement services for 6 of its 8 towns. A staff of 10 dispatch/corrections deputies are cross trained and work in the communication center and also operate the county's 24 bed jail. These cross-trained deputies are responsible for answering 9-1-1 calls, admin calls, take calls for service, dispatch, provide pre-arrival medical and law instructions, data entry, book and release inmates, and provide for the daily care and custody of the inmates among many other tasks and duties. There are a minimum of 2 dispatch/corrections deputies on per shift and they work 12 hour shifts.

**Successes:**

- In 2018, with the help of Lincoln County Commissioners and 13th Legislative District Senator Judy Warnick and Representative Tom Dent, Lincoln County received \$485,000 from a State Grant through Department of Commerce to replace a 14 year old CAD system. The new CAD system went live April of 2019
- The Lincoln County Jail is able to generate on average \$180,000 in revenue each year that goes directly to the general fund to help offset revenue shortfalls. This is due to contracting with outside agencies such as Department of Corrections, Fairchild Airforce Base, USMS and Stevens County Jail to provide housing for their inmates.

**Challenges:**

- Because Lincoln County's primary economy is wheat farming and agriculture, the highest revenue source for the county is property tax. There is little to no industry in Lincoln County so very little sales tax revenue is generated. With the property tax capped at 1% increase per year and the cost of living and other county expenses

raising at approx. 5% per year, the county addresses a deficit each year. Lincoln County lacks the diversity of multiple revenue streams that most other counties rely on.

- Cross trained dispatch/corrections staff produces a unique problem for Lincoln County Sheriff's Office. There is a physical fitness prerequisite as part of the hiring process. The test requires successful completion of a 1.5 mile run, push-ups and sit-ups. Once hired, applicants will have to perform this test a second time as part of the entry process to a 4 week, off site Corrections Officer Academy. Living in a rural area results in a limited number of people applying for the job of dispatch/corrections and when you add the physical requirements, it greatly limits the applicant pool. We are rarely fully staffed due to the stressful nature and high demands of the dual commissioned role of our dispatch/corrections staff. On positive note, many of our employees have decided that this is the career for them and most of our incumbent deputies have a longevity of 10 years or more.
- We are heavily reliant on the State 911 funds to help fund and operate the communication center. These funds are used to assist with salary, equipment maintenance, IT staff, mapping, training and public education. Lincoln County struggles to replace critical equipment, including 9-1-1 phone systems and CAD. The county does not have the funds, and the State funding typically just covers basic services.

**Efficiencies:**

- Cross trained dispatch/corrections staff reduces the number of staff, however is also listed as a struggle with hiring and retention.
- Lincoln County Sheriff's Office serves and dispatches for the entire unincorporated county, 6 contract towns, 2 police departments, National Parks Service, and 7 volunteer Lincoln County Fire/EMS Districts.

## Mason County

Mason County is located near the foothills of the Olympic Mountains and the Olympic National Forest. It is 961 square miles in area with approximately 300 miles of salt water front on South Puget Sound and Hood Canal. There are 200 fresh water lakes. The County Seat, Shelton, is 22 miles northwest of Olympia, the State Capitol. Mason County is a close neighbor to the cities of Olympia and Bremerton. Mason County offers a rich variety of social, cultural, and recreational opportunities for people of all ages. The Olympic National Park, Pacific Ocean Beaches, and the Olympic Mountains are within an hour's drive from Shelton.

The federally recognized Squaxin Island Reservation of Indians is located in Mason County. The Squaxin Island Tribe was one of the first Native American tribes in the U.S. to enter into the Self Governance Demonstration Project with the federal government.



## MASON COUNTY

Population: 60,699

Area: 961 Square Miles

1 PSAP

4 Law enforcement agencies

11 Fire Agencies

14 Telecommunicators

4 Supervisors

3 Admin/IT/Support

### 2019

911 Calls: 37,386

Calls for service: 52,631

Revenue: Mix of phone excise tax, Current Expense Dollars, two Contracts and State Grant.





**Successes:**

- In 2018 MACECOM hired a fulltime radio tech.

**Challenges:**

- MACECOM 911 struggles with recruitment, hiring and successful retention of new Public Safety Telecommunicators. The turnover results in unsustainable overtime and additional stress on current employees and their families.
- Radio and cell phone coverage is a significant operational challenge due to the terrain of our county.
- Due to the size of the county and remote locations, lengthy emergency response times to calls sometimes require Telecommunicators to stay on the line with callers for extended period of times.

**Efficiencies:**

- One communications center serving the whole county.
- All MACECOM telecommunicators are cross-trained to be Call Receivers, Law dispatchers, and Fire/EMS dispatchers.



## Okanogon County



# OFFICE OF THE OKANOGON COUNTY SHERIFF

ANTHONY D. HAWLEY, SHERIFF

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Okanogon County is located in north central Washington along the Canadian border. Okanogon County is a very rural county with 13 small towns and cities with populations between 500 to 5000 and a combined county population of 42,730. Okanogon is the geographically largest county in Washington at over 5300 square miles. The county is a combination of mountainous forests, range highlands and lowland river valleys where orchards, vineyards and cities are found. The Colville Confederated Tribal Reservation occupies the southeast portion of the county.

Recreation opportunities are endless in the Methow Valley, Pasayten Wilderness, state and federal lands, lakes, rivers and numerous trails for hiking, biking, skiing, snowmobiles and ATV's. The year-round recreation makes search and rescue operations a routine activity.

In the county state highways cross four mountain passes over 3200-foot elevation where Okanogon County emergency services and radio coverage must be provided on both sides of three of these passes. This difficult geography creates a particular challenge to delivering radio coverage to first responders. The many long deep valleys are a continuation of the same challenge.

The Okanogon County Sheriff's Office operates the 911 Dispatch center and primary PSAP for the county serving 34 law enforcement, fire protection and Emergency Medical Service providers. The Colville Confederated Tribes operates secondary PSAP for the tribal police, fire and EMS services on the reservation. The county's primary PSAP and the CCT's secondary PSAP coordinate emergency responses on a daily basis.

Okanogon County has a long history with wildfire. Most recently the 2014 Carlton Complex fire (250,000+ acres) and the 2015 Okanogon Complex fire (500,000+ acres) were the largest in state history in consecutive years and again in 2020 the Cold Springs Fire (170,000 acres) raced across the Colville Reservation and into neighboring counties. During "normal" wildfires and extreme events the existing emergency service agencies and radio infrastructure are overwhelmed with the increased activity.

Successes include the 2020 implementation of the .2% Emergency Communications sales tax. The new revenue will be applied to a major radio infrastructure overhaul for increased talk capacity, effectiveness and communications efficiency. The new revenue will offset much of the dispatch agency user fees as a new financial structure is implemented such that all user agencies pay a volume-based fee rather than a select few agencies. With these major changes a Dispatch Advisory Board has been established to provide improved transparency and opportunity for collaborative input from user agencies.



The greatest challenges are radio communications infrastructure and dispatch space. The county is very large with population scattered throughout the county. Calls for service occur in population areas as well as on public lands where recreation occurs. Response times are long and require a great deal of radio communications infrastructure to provide coverage throughout the county filled with very challenging terrain. Improvements to radio communications infrastructure will likely exceed available dispatch space requiring a new dispatch facility.

Data connectivity and the digital divide is a growing challenge. First Responder agencies have an increasing demand for data connectivity but routinely respond outside of cellular coverage with no alternatives for connectivity.

Delivering services and systems to county residents and agencies is a challenge as demand is increasing for services and for quality of service but the paying population is small and economic base is limited as 75% of the county's landmass is publicly owned and tax exempt.

## Pend Oreille County



Pend Oreille County is located in the Northeast corner of Washington State with 18 miles of International Border with Canada. The County population is 13,602. The County seat and largest city, which borders Idaho, is Newport, with a population of 2,215. Other incorporated towns are Cusick, Lone, Metaline and Metaline Falls. The County was created out of Stevens County on March 1, 1911. Pend Oreille is the most recently formed of the State's 39 Counties.

The federally recognized Kalispel Tribe of Indians is located in mid-Pend Oreille County and covers approximately 252 acres. Pend Oreille County provides 9-1-1 call taking and dispatching services for the Kalispel Tribe of Indians. Boundary Dam, which provides upwards of 46% of the power generated by Seattle City Light, is also located in Pend Oreille County.

Pend Oreille County, where you will find a unique blend of pioneer spirit, visitor's amenities, and small-town hospitality, serves as a gateway with bordering Idaho and Canada to some of the Pacific Northwest's most enchanting landscapes and finest wilderness and outdoor recreation areas. Whether your passion is hunting, game fishing, wildlife viewing, golf, winter sports or water sports, you will find much offered here. It is also a place rich in culture and history with historical museums and where places of interest abound. It is named after the Pend d'Oreille Tribes who in turn were ostensibly named for large shell earrings that members wore. While awkward in French, Pend Oreille can be translated as "hang from the ear".

During the summer, the mountain areas have moderate daytime temperatures and cool nights, with freezing temperatures lasting at times into the month of June and beginning again as early as August. The winters are often accompanied by subzero nighttime temperatures



with a significant amount of snow accumulation that can last until June in areas of the County. The

### PEND OREILLE COUNTY

Population: 13,602

Area: 1,425 Square Miles

1 PSAP

32 Fire/EMS/Law agencies

8 Telecommunicators

2 Supervisors

4 Admin/IT/Support

#### 2019

Calls for service: 21,320

9-1-1 Calls received: 6,527

Non-Emergency calls: 31,789

Budget: \$1,041,330 million

Revenue: Mix of phone excise tax, Current Expense Dollars, two Contracts and State Grant.

elevation ranges from approximately 1,800 feet to 7,000 feet. Pend Oreille County has a history of significant flooding, wildfires and extreme weather conditions.

In 1998 Pend Oreille County, with the assistance of state funding and the passage of the 9-1-1 tax, was able to consolidate into one PSAP located in Newport to incorporate the North Counties system where 9-1-1 calls were answered in volunteer call-takers homes. During that time the County was also, with State funding assistance, able to install a new county-wide microwave radio system and also remodel the existing dispatch center into an Enhanced 9-1-1 Center.

Pend Oreille County 9-1-1 is a division of the Pend Oreille County Sheriff's Office and serves 6 Law Enforcement Agencies, 14 Fire Agencies, 9 EMS Agencies and 3 additional agencies. 9-1-1 is funded by County current expense dollars, telephone taxes, two user agency contracts and State 9-1-1 funding. In addition to providing 9-1-1 and dispatch services, Pend Oreille County owns and maintains the complete emergency response radio infrastructure in the county, including towers, base stations, repeaters, network, and radio consoles.

**Successes:**

Pend Oreille County recently installed a new Motorola P25 K Core radio system in the 9-1-1 Center, has installed all new Motorola P25 mountain top repeaters and is in the process of installing a new county-wide Radio Microwave System that will be completed in 2021.

Success has also been seen in telecommunicator recruitment as currently all positions are filled, and the retention period of current employees continues to increase.

The backup 9-1-1 Center was recently moved to a dedicated facility with all new equipment, including furniture, computers and radios.

**Challenges:**

One of the biggest issues is the replacement of equipment, especially as the State 9-1-1 fund has had an equipment purchasing freeze in place for the last several years.

If the 2/10 of 1% sales tax RCW were to be changed to allow local authorities to implement the tax without going out for a vote (as was done with the mental health tax), it would allow for more counties to implement the tax and increase 9-1-1 funding statewide, which would reduce the need to raise the statewide monthly 9-1-1 telephone tax.

**Efficiencies:**

By 2021 the County, through Federal, State and local funding, has been able to find funding sources to replace our antiquated Microwave System, Radio Consoles, and Mountain top Repeater.

Pend Oreille is working with our user agencies county-wide to establish an equipment replacement fund which has been well received by user agencies.

## Pierce County



Pierce County is one of the most diverse in Washington, with elevations ranging from Sea Level to 14,411 feet (Mt. Rainier). The county's demographics range from dense Tacoma's dense urban areas to the rural eastside communities and remote wilderness.

Pierce County is served by three primary PSAPs; Joint Base Lewis-McChord, South Sound 911, and Washington State Patrol District 1<sup>44</sup>. There is also one secondary PSAP; Tacoma Fire Communications. The County Department of Emergency Management hosts the 911 Program Office, which has overall coordinating responsibility for networks, systems, and technologies implemented between the caller and the 911 call-taker.

In 2011, Pierce County voters authorized the 1/10<sup>th</sup> of 1% sales and use tax for public safety communications. This funding mechanism created South Sound 911, allowed for significant upgrades to the public safety radio system, and improved end-user equipment for first responders.

The 911 community in Pierce County is also unique inasmuch as it includes local, state, and federal stakeholders working cooperatively toward seamless delivery of services. These three partners together serve dozens of public safety agencies, specifically:

**Joint Base Lewis-McChord:** Military Police and JBLM fire

**South Sound 911:** 20 law enforcement and 17 fire agencies

**Washington State Patrol (District 1):** WSP plus multiple other state agencies with response obligations.

## PIERCE COUNTY

Population: 888,300

Area: 1,806 Square Miles

### PSAPs

3 Primary

1 Secondary

23 Law agencies

17 Fire/EMS agencies

140+ Telecommunicators

100+ Other staff/support

### 2019 Statistics

Incidents Dispatched:

SS-911: 775,509

JBLM: 32,848

911 Calls: 524,218

Admin/Other calls: 387,767

Budget: 52.4 million

Revenue: mix of phone excise tax, 1/10<sup>th</sup> of 1% sales/use tax, user fees

<sup>44</sup> WSP operations are summarized elsewhere in this report and not included in the statistical representations.

### **Successes:**

- Voter approval of 1/10<sup>th</sup> of 1% sales and use tax initiative to help support 911 and radio communications in Pierce County, establish South Sound 911 and fund a modern, redundant 911 Communications Center.
- Consolidation of multiple primary and secondary PSAPs into the South Sound 911 organization.
- Creating an independent South Sound 911 agency with a governing board of elected officials from across the county.
- Establishing a common dispatching platform, serving both Fire/EMS and Law Enforcement that will be shared between South Sound 911 and Joint Base Lewis-McChord.
- South Sound 911, City of Tacoma and the Combined Communications Network partner to deliver highly reliable public safety radio communications to all Pierce County first responders.
- Partnership between Washington State Patrol District 1 Communications and the County 911 Program office to pilot cybersecurity practices.



### **Challenges:**

- Consolidation of employees and labor contracts from prior PSAPs into one organization.
- Future funding for 911 and radio communications
- Developing common/shared policies and procedures that address handling of 911 calls and next generation 911 media types.
- Determining the PSAPs role in community issues such as mental health and social justice.
- Planning for a common platform capable of processing all next generation 911 media types to serve all PSAPs within the County.
- Integration of new technologies across multiple public safety networks (911 IP network, FirstNET, other Public Safety broadband networks)
- Planning for and implementing holistic cybersecurity systems and processes to ensure the safety and reliability of 911 and public safety communications.

### **Efficiencies:**

- Consolidated five primary PSAPs and one secondary PSAP into a single, new organization in South Sound 911
- Equipment consolidations along with support and administrative staff.
- Reduced 911 call transfers and delays between multiple PSAPs.
- Migrated to a single Computer Aided Dispatching system for both law enforcement and fire/EMS.

## San Juan County



San Juan County is the smallest in area and has the fourth smallest population in Washington State.

Made up entirely of islands, there is no bridge to the mainland, and it is accessed only by air or boat. It is bounded by Whatcom and Skagit counties to the east, Island, Jefferson and Clallam counties to the south and 43 miles of international border with Canada.

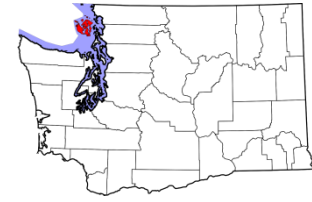
There are 172 named islands in the county, 15 of which have year-round residents. The four largest islands, Orcas, San Juan, Lopez and Shaw are served by the WA State Ferry system which provides service to the mainland at Anacortes and between the islands. The other inhabited islands must be accessed by air or private vessel.

San Juan County is home to the San Juan Islands National Monument, along with state and county parks and other land preserves. The landscape in the county consists largely of farmland mixed with steep, heavily forested hills, punctuated by high promontories, most notably Mt Constitution in Moran state park topping out at 2408'. The islands are surrounded by close to 478 miles of rocky shoreline with beaches, coves, and bays.

The islands host many festivals throughout the year, and the natural beauty, hiking, camping and other recreational opportunities have made the islands a popular destination for tourists and vacationers.

Residents of the county are typically older than those of other Washington counties and many are retirees. The economy is heavily dependent on tourism, with Accommodations & Food Services being the sector with the largest number of employees.

The Town of Friday Harbor on San Juan Island is the only incorporated community, and is home to the county seat and the offices of the county government. The PSAP is operated by the Sheriff's Office and is located at the courthouse in Friday Harbor. The PSAP is funded with county Current Expense funds, telephone excise taxes, State Basic Service Operating Contract and user fees. The PSAP staffs three workstations for the telecommunicators and receives and dispatches 911 calls for the Sheriff's Office and the five, mostly volunteer, Fire/EMS districts in the county. Other than the largest of the islands, most of these are not included in the Fire/EMS districts. Emergency response to these "unprotected" islands is generally provided by Sheriff's Office patrol boats or a shared emergency services vessel operated by the Sheriff's Office and San Juan Fire Protection District 3.



## SAN JUAN COUNTY

Population: 17,582 (2019 est.)

Area: 621 Square Miles (174 land, 447 water)

Islands: 15 inhabited, 172 named

1 PSAP

6 Fire/EMS/Law agencies

9 Telecommunicators

1 Supervisor

2 Admin/IT/GIS

**2019**

911 calls received: 7,418

Business calls received:  
24,847

Outgoing calls: 13,080

Budget: \$1.2 million

Revenue: County Current Expense Fund, phone excise tax, State Basic Service Operating Contract, user fees



Most of these unprotected islands do not have established road names or 911 addresses, which creates additional challenges for emergency response.

Each response agency or district in the county has maintained separate, conventional, legacy radio systems, and the nature of the terrain has presented challenges to clear radio communications for years. In February of 2020 the voters of the county passed an "Emergency Communications Sales Tax" to fund a proposed, modern county wide emergency communications radio system. After five years the tax will be reduced from the initial rate to fund ongoing maintenance of the system.



#### **Successes:**

- Voters passed the Emergency Communications sales tax in February 2020.
- PSAP IT support was moved from an outside contractor to County IT department.
- Migration to Comtech ESINET II completed.
- Achieved 98%+ accuracy with NG911 addressing transition.
- Recognition by WA chapter of APCO/NENA of dispatch team with award for performance on a critical incident.

#### **Challenges:**

- Finding dedicated funding to help reduce the need for State funds and user agency fees. 911 "competes" with other county departments for the local funding needed each budget cycle.
- Funding expensive system replacements which have relatively short upgrade cycles.
- The county struggles with recruitment, hiring and successful retention of new Public Safety Telecommunicators due to geographic isolation, housing costs and cost of living. Consequent turn over results in higher costs to the county.
- Radio system coverage is a significant operational challenge. Cellular coverage is limited in parts of the county.
- Some inhabited islands have no road names or addresses.
- Small number of staff and limited available staff time is a challenge to participation in the sub-committees of the 911 Advisory Committee.

#### **Efficiencies:**

- Having IT support available 24/7 with County IT staff.
- Having dedicated GIS support from the County GIS staff.

## Skagit County



Established in 1998, Skagit 911 serves the community in picturesque Skagit County, Washington. Located in the Pacific Northwest, about 33 miles south of the Canadian border, the County boasts some of the richest farmland in the world, with 80 different types of crops grown. Additionally, the annual Skagit Valley Tulip Festival draws thousands of visitors to the area each spring.

Known as a gateway to the San Juan Islands, Skagit County offers historic waterfront communities, as well as a scenic highway that leads to the towering mountains and exceedingly clear lakes of the North Cascades National Park. The countless opportunities for outdoor recreation make the County an ideal place to live for hikers, bikers, kayakers and other adventure seekers. The professional



employees at Skagit 911 are trained and ready to assist citizens with all types of emergencies... including mishaps that sometimes occur while enjoying the County's rustic natural beauty.

Skagit 911 is a non-profit inter-local agency governed by a Board of Directors. The Board consists of three County Commissioners and six Mayors representing the cities and towns within Skagit County. With the support of their Board, Skagit 911 has made important inroads to enhance financial growth and stability and provide excellent service to their citizens and public safety responders.

Over the last 5 years, Skagit 911 has celebrated many successes and improved efficiency in several ways including, but not limited to the following:

### SKAGIT COUNTY

Population: 129,205

Area: 1920 Square Miles

County Seat: Mount Vernon

1 PSAP

35 Fire/EMS/Law agencies

32 Telecommunicators

5 Supervisors

9 Admin/IT/Support

#### 2019 Statistics:

Calls for service: 228,900

Emergency Calls: 103,242

Business calls: 125,658

Budget: \$6.8 million

Revenue: A combination of User Fees, 911 Phone Taxes and Sales Tax revenue



- Skagit 911 created a new funding model that properly funds the Operations and Technical Services Departments. This change required a significant raise in user agency fees for operational expenses, with each user agency paying fees based on usage of services. The current 1/10<sup>th</sup> of 1% sales tax funds the entire Technical Services budget.
- An Equipment Reserve and Replacement Schedule was created, and fiscal resources allocated, from the 1/10<sup>th</sup> of 1% sales tax with a schedule to internally fund technology upgrades and replacements 30 years into the future. This reduces dependence on state E911 funding and emergency legislative funds.
- Skagit 911 completed a major renovation to the existing dispatch floor. Improvements include all new wiring to reduce radio interference and provide for future technologies; and the Center was able to increase the number of dispatch consoles by 25% utilizing new sound suppression technology.
- Skagit 911 commissioned APCO (Association of Public-Safety Communications Officials) to perform a thorough and comprehensive functional study of the 911 Center. Their findings and recommendations act as a baseline for meeting APCO/NENA standards and for strategic planning. Various user agencies, board members and employees provided input for the study.
- Improvements in the hiring and training processes, as well as a leap to competitive wages and benefits, have enabled Skagit 911 to move along the road to recovery from a period of significant staffing deficiencies and turn over.



Skagit 911 also faces challenges in the coming years:

- Skagit 911 strives to meet the needs and expectations of the community by anticipating changing demographics, to staying on the cutting edge of advances in technologies. Intrinsic to these changes come the difficulties in creating and maintaining a highly skilled workforce that is largely underappreciated for the critical, often lifesaving, work that they do in an ever changing and highly stressful environment.
- Classified as a medium sized county in Washington State, Skagit 911 is ineligible for equipment and operational funding through the State E911 office and must depend on high user-agency fees and the initial 1/10<sup>th</sup> of 1% sales tax. Voter approval of the 2<sup>nd</sup> 1/10<sup>th</sup> of 1% may not be realistic at this time.
- Skagit 911 has outgrown its facility and must move forward with plans for a larger 911 facility. Details regarding the funding of the project are complicated and yet to be determined.

# Skamania County



Skamania County is located just 45 minutes east of Vancouver in the heart of the Columbia River Gorge National Scenic Area. It is bordered by the Washougal River to the west, the White Salmon River to the east, the Columbia River to the south and the Mt. St. Helens National Volcanic Monument to the north. The Gifford Pinchot National Forest occupies 80% of the county's land mass. The low-density population centers are located near the Columbia River in the cities of Stevenson and North Bonneville as well as the unincorporated area of Carson, Washington. Though very rural, Skamania County hosts more than 2,000,000 visitors a year. It is well known for its outdoor recreational opportunities, summer festivals, one of the largest monoliths in the world and an active volcano. It is host to Skamania Lodge, an international destination resort located in Stevenson, which sees more than 30,000 visitors come through its doors annually. The county's proximity to the Vancouver-Portland Metropolitan area make it an ideal destination for day trips from those populaces.

The Mt. St. Helens National Volcanic Monument and the Gifford Pinchot National Forest are international tourist destinations. Both known for their rugged terrain, world class hiking and biking, and scenic views, the areas see an increase in tourism during the peak season of over 1.5 million. With the influx of tourists comes an increased call volume in the county's 911 center. Calls for service ranging from recreational accidents, search and rescues, over-due climbers and hikers are on the rise in the county during the May through September tourist season. Due to the county's proximity to the metropolitan areas, the area also see's an increase in calls of a criminal nature ranging from missing persons under suspicious circumstances, assault and even homicide. Both areas are under the management of the United States Forest Service who rely on the PSAP for responses to those areas.

Skamania County 911 is a division of the Skamania County Sheriffs Office. It provides 911 call handling and dispatch services for 16 agencies, and answers all calls for the sheriff's office. Call receivers and dispatchers are also cross trained in corrections and provide support to the county jail staff by monitoring the inmate population and movement, as well as door security. The county has limited funding for 911 services due to a large federal land presence in the county with which there is no commercial infrastructure, creating a low business footprint availability. That, combined with a low population, makes for a nominal 911 tax collection. The 911 dispatch center relies heavily on State 911 funding which

## Skamania County

Population: 12,071

Area: 1683 Square Miles

1 PSAP

16 Fire/EMS/Law agencies

10 Telecommunicators

2 Supervisors

1 Admin/IT/Support

### 2019

Call for service: 11,570

911's received: 9,962

Business calls: 19,851

Budget: \$700,000.00

Revenue: County 911 excise tax, user fee's and state grant

accounts for more than half of the budgeted revenue. Other revenue sources are the county's 911 excise tax, which accounts for only 1/10<sup>th</sup> of the revenue needed to fund 911 annually and user fees charged to first responder agencies which are even less than that, accounting for around 5% of the budget. Skamania County has Inter-Local Agreements with a couple of our law enforcement user agencies which allow the county to utilize their radio tower infrastructure to improve communication abilities in very remote areas of the county. In exchange for this, Skamania County provides call taking and dispatch services to those agencies. While this is a creative way of gaining a needed resource, it does not bring any additional revenue to the 911 center. The county has had to come up with several creative ways like this in order to fund 911 in the county.

### **Challenges:**

- Finding support for additional funding sources to help reduce the need for State funds.
- Skamania County struggles with recruitment, hiring and successful retention of new Public Safety Telecommunicators as they are also required to be cross trained in corrections which is an entirely different set of skills. Finding employee's that want to, and can do, both jobs is difficult.
- Due to a large Federal presence, property tax revenue is applied to less than 2% of the county.
- Radio and cell phone coverage is a significant operational challenge resulting in extended call times and additional resources if available.
- The 911 communications and corrections division really should be separated in to two departments. However, this would require additional employee's in order to maintain both departments at acceptable staffing levels which would increase overall costs.

### **Efficiencies:**

- Skamania County staff are cross trained as both 911 call receivers and dispatchers as well as fully commissioned corrections officers. This enables the division to keep the staffing levels down yet still acceptable while also having the ability to fill vacant call receiver positions with corrections staff if, and when, needed.

## Snohomish County



Snohomish County 911, or SNO911, is in Snohomish County on the Puget Sound, between Skagit County to the north and King County to the south. Covering 2,090 square miles, it is the 13<sup>th</sup> largest county in total land area in Washington. Snohomish County’s varied topography ranges from saltwater beaches, rolling hills and rich river bottom farmlands in the west to dense forest and alpine

wilderness in the mountainous east. Glacier Peak, at 10,541 feet, is the highest point in Snohomish County and one of the highest in Washington State. Sixty-eight percent of the county land area is forest land which equates to almost 663,000 acres of forest land within the National Forest and 254,577 acres of forest land within the county jurisdiction. 18% of the county is rural, 9% is urban/city and 5% is agricultural.

In addition to our diverse topography and mix of urban and rural areas, Snohomish County is also home to Naval Station Everett, Boeing’s Everett Site, the Port of Everett, and Paine Field, which began commercial air service in early 2019.

There are three federally recognized Indian Tribes in Snohomish County: the Sauk-Suiattle Tribe, the Stillaguamish Tribe, and the Tulalip Tribes. Snohomish County values its partnership with each Tribe and is committed to supporting tribal efforts to build ever more resilient and connected communities.

Snohomish County 911 is a municipal instrumentality of its members, jointly organized by such members as a nonprofit corporation under chapter 24.06 RCW. This is like an Interlocal Agreement (ILA), but organized as a nonprofit corporation.

Snohomish County has consolidated all public safety communications into a single, countywide agency – Snohomish County 911. This includes the consolidation of two PSAPs - SNOCOM and SNO PAC, effective January 1, 2018; as well as the integration with Snohomish County Emergency Radio Systems (SERS), which was completed the following year, effective January 1, 2019. These consolidation efforts have increased efficiencies in both operations and budget. The Agency has reduced cumulative member agency fees by \$4.2M, including FY 2019-2021. These reductions were possible due to staffing and technical efficiencies. The Agency continues to maintain two physical buildings, one as the primary PSAP and the second as a warm standby site. Technical systems have been configured to allow dispatchers to seamlessly work as a single operation from both sites simultaneously. The warm standby site has also been offered as a regional backup facility for neighboring PSAPs.

## SNOHOMISH COUNTY

Population: 757,600

Area: 2090 Square Miles

1 PSAP (Consolidated  
1/1/2018)

44 Fire/EMS/Law agencies

103 Telecommunicators

16 Supervisors

41 Admin/IT/Support

### 2019

Calls for service: 534,914

911 Calls: 468,563

Emergent/Alarm: 66,351

Non-Emergency: 138,434

Texts/Other: 27,533

Outgoing calls: 169,940

Budget: \$24 million

Revenue: mix of phone excise  
tax, user fees and contracts.

Emergency radio services  
upgrade via 1/10<sup>th</sup> of 1% tax.

### Successes:

- Consolidated all public safety communications into a single, countywide agency. This includes two PSAPs and the emergency radio system.
- Snohomish County successfully passed the 1/10<sup>th</sup> of 1% sales and use tax to support a radio replacement/upgrade project that is currently in process.
- Snohomish County 911 has made significant strides in the hiring and recruitment process with the anticipation of fulfilling all authorized positions by summer 2020 and given normal attrition, believes they should be able keep up the pace.
- SNO911 is also making strides to improve employee wellness and resiliency.



### Challenges:

- Retention. The job is rapidly becoming too complex with too many tasks and not enough downtime between actions. SNO911 believes this will create burnout/stress and will impact retention.
- Multi-generational workforce. Newer generations are only staying 5-7 years and have a completely different understanding of employer/employee relationship.
- The number of public records requests increases each year, outpacing the staffing available to respond in a timely fashion.
- Keeping up with technological changes and continuing to set public expectations in-light of real technological advances versus unreal expectations from TV, movies, etc.

### Efficiencies:

- In addition to the operational and financial impact noted above, SNO911 has become a natural home for regional technologies, outside of the needs for the PSAP. A couple of examples include the hosting of the countywide Tyler System which includes; corrections, law RMS (records management system) and mobile applications. Bringing this under one technology umbrella has significantly reduced the number of disparate, stand-alone systems used in the County.
- The second example is that SNO911 offers a leased laptop program which essentially provides a standardized laptop for police and fire vehicles to connect. In these cases, SNO911 manages the entire communication path, including hardware, connectivity, software, etc.



# Spokane County

Named after the Spokane Tribe and located in Eastern Washington, Spokane County covers 1781 square miles and is the fourth-most populous county in the state. Spokane County is part of the Spokane-Spokane Valley, WA Metropolitan Statistical Area, which is also part of the greater Spokane-Coeur d'Alene Combined Statistical Area that includes nearby Kootenai County, Idaho. The largest city and county seat is Spokane, the second largest city in the state after Seattle.



Spokane is the economic and cultural center of Spokane County and the Inland Northwest. Spokane is known as the birthplace of Father’s Day, and its official nickname is the “Lilac City”. The city and the wider Inland Northwest area are served by Spokane International Airport, 5 miles west of downtown. Spokane is the second-largest city in Washington, and the 100th-largest city in the United States. In 2019, the United States Census Bureau estimated the city’s population at 222,081 and the population of the Spokane Metropolitan Area at 573,493. The first people to live in the area, the Spokane tribe (their name meaning “children of the sun” in Salishan), lived off plentiful game. David Thompson explored the area with the westward expansion and establishment of the North West Company’s Spokane House in 1810. This trading post was the first long-term European settlement in Washington. Completion of the Northern Pacific Railway in 1881 brought settlers to the Spokane area. The same year it was officially incorporated as a city under the name of Spokane Falls (it was reincorporated under its current name ten years later). In the late 19th century, gold and silver were discovered in the Inland Northwest. The local economy depended on mining, timber, and agriculture until the 1980s. Spokane hosted the first environmentally themed World’s Fair at Expo ‘74 and is home to Hoopfest, the world’s largest 3-on-3 basketball tournament and Bloomsday.

Spokane County took the first step toward integration in 1998. Spokane County fire districts consolidated their communications systems into one, The Combined Communications Center. Emergency communications were further integrated on July 1st 2019, when Spokane Regional Emergency Communications, a single organization was established as a Public Development Authority. It was created to improve current operations and prepare for future technology, bringing Spokane County up to speed with the rest of the northwest in providing quality service in an emergency situation. This integrated approach focuses on customer service needs, getting emergency responders where they need to be faster, delivering on that established SREC standard of efficient, effective, affordable, and sustainable emergency service to Spokane County. SREC gets the right resources to the right location with an uncompromising focus on responder and citizen safety.

## Spokane County

**Population: 522,798**  
**Area: 1781 Square Miles**  
**Fire/EMS/Law Agencies: 22**  
**Telecommunicators: 83**  
**Supervisors: 16**  
**Admin/Support: 26**  
**2019**  
**- Calls For Service : 601,782**  
**- 911 Calls Received: 291,584**  
**- Crime Check Calls: 310,198**  
**- Crime Check Reports: 44,354**  
**Budget: \$ 25 Million**  
**Revenue: Mix of E-911 Excise Tax, User Fees, County Sales Tax and State Grants**

## SUCSESSES:

- SREC has integrated all emergency communications in Spokane County, with the exception of the City of Spokane Fire and Police dispatch, Cheney Police dispatch, and FairChild Airforce base.
- SREC has implemented Emergency Medical Dispatch. Now, a caller facing a medical emergency will stay on the line with the original Communication Officer while responders are being dispatched. The update will bring one of the major purposes for SREC integration full circle, saving vital moments in response time and providing comfort and aide to our citizens in need and eliminating a call transfer.
- The SREC Geographical Information System department currently sits at an accuracy rate of 98.89% with 0 critical errors. Having good locations is key to getting citizens the help they need in timely manner.
- SREC report technicians are new positions that were introduced at the launch of the organization. The Report Technicians are fully staffed and trained to take on an average of 48% of the reports that come in through 911 and Spokane Crime Check for the entire Spokane region (to include the City of Spokane). This has alleviated the call volume for our Communication Officers and has allowed them to focus primarily on 911 calls. In addition to allowing our Communication Officers to focus on 911, they are also a great resource for crime reporting to our citizens and local law enforcement agencies.



## CHALLENGES:

- Since inception, SREC is working through cultural changes that come with combining 4 different agencies into one.
- Ongoing talks between SREC and the City of Spokane on possible integration are still occurring.
- Creating a Public Development Authority (PDA) from the ground up and ensuring the funding continues to be stable while also creating reserve funds is essential.
- Long-term sustainable funding including revenue from the 1/10th and renewal of the 1/10th is necessary to keeping the priorities funded to better serve our community.

## EFFICIENCIES:

- SREC staff have started the process of cross training employees to improve efficiencies.
- The SREC radio shop continues to support and manage the regional Motorola 800 MHZ radio system. The Radio shop is constantly implementing improvements and upgrades for the system to better serve the Spokane regions public safety partners.
- The SREC finance & HR departments have implemented new software that allows the centralization for these departments and the SREC employees.

## Stevens County

Stevens County is located in northeast Washington State with 38 miles of International Border with Canada. The western boundary of the county is along Lake Roosevelt National Recreation Area (LARO) on the Columbia River, with access into Ferry County by only a single ferry and two bridges over 85 miles.



Rich in history, the original Stevens Territory represented what are now 13 counties in eastern Washington, all of northern Idaho and much of western Montana. Prior to settlement, the Kettle Falls on the Columbia River was a gathering place for 14 tribes that fished there for salmon. In 1811, explorers embarked downriver from Kettle Falls to what became the Fort Colville trading post. It was the principal outpost for Hudson's Bay Company operations stretching from the Mississippi River to the Cascade Mountains.

Colville is the **county seat** of Stevens County, with a population of 4,673 people. Other incorporated towns are Springdale, Chewelah, Kettle Falls, Marcus and Northport. **Main industries** for the county are timber, agriculture, tourism and manufacturing. Stevens County has a large federal presence with Lake Roosevelt National Recreation Area (LARO), Colville National Forest, Little Pend Oreille National Wildlife Area, and the Kiniksu National Forest. LARO attracts 1.36 million visitors, of which 585,000 specifically visit Stevens County. Stevens County has a history of significant wildfires potential. In 2015, three major wildfires broke out, resulting with approximately 80,000 acres burned, along with multiple residences, outbuilding and one civilian casualty.

The Spokane Tribe of Indians Reservation is located in the southwest corner of the county and cover 237 square miles. Stevens County 911 provides initial call taking for the Tribe.

Stevens County 9-1-1 is a division of the Stevens County Sheriff's Office with agreements with 16 fire, 11 law, 3 EMS and 8 other agencies. Maintaining the existing operations requires State 911 fund assistance, significant user fees and revenue from leased microwave circuits. There are NO direct current expense funds allocated from Stevens County. In addition, Stevens County 911 dispatched for Fire and EMS in eastern Ferry County. Terrain plays an important role in emergency response within the county. With the large volumes of waterways, lakes and mountain ranges, coupled with limited cellular towers, location becomes a challenge for the 75% of our calls that are cell based.

## STEVENS COUNTY

Population: 45,260

Area: 2,541 Square Miles

1 PSAP

30 Fire/EMS/Law agencies

8 Additional agencies

12 Telecommunicators

1 Supervisor

0 ( IT: County Based)

### 2019

Call for service: 30,660

911's received: 16,505

Business calls: 62,340

Budget: \$1.68 million

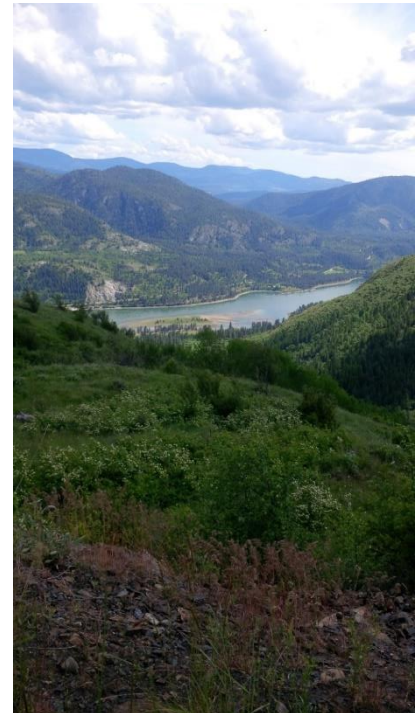
Revenue: mix of Phone excise tax / 22%, State E11 funding / 15%, User fees / %8%, and Miscellaneous revenue / 5%.



In addition to providing 911 and dispatch services, Stevens County 9-1-1 owns and maintains the entire radio infrastructure in the county including towers, base stations, repeaters, microwave network and radio consoles in the PSAP.

#### **Successes:**

- Stevens County 911 expand its original single radio frequency, that was shared with Pend Oreille County, to four separate frequencies to serve a) north fire agencies, b) south fire agencies and c) two law enforcement frequencies. All of these frequencies are served by mountain top repeaters.
- Stevens County 911 has developed and implemented a funding model in which all agencies are equally assessed for use of the dispatch and radio system.
- Stevens County has successfully leveraged a FEMA Assistance to Fire Fighter grant for an eight (8) hop microwave communications system.
- Stevens County 9-1-1 has leveraged other outside funding sources, combined with inter-county loan opportunities to upgrade the radio consoles, mountain top repeaters and in the summer of 2020, a full simulcast for all four frequencies.



#### **Challenges:**

- Stevens County struggles with finding dedicated funding to help reduce the need for State funds and significant agency user fees. Currently the use of the 1/10<sup>th</sup> or 2/10<sup>th</sup> of 1% tax is not feasible due to significant unresolved issues with the County jail. It is currently running 150% of capacity with a large number of prisoners being housed out of county.
- As a part of the dedicated funding issue, Stevens County 911 is currently facing the immediate need to upgrade/replace its 911 phone system without any identified funding source.
- Stevens County 9-1-1 struggles with finding candidate to even apply for the arduous hiring process.
- Stevens County radio and cell phone coverage is a significant operational challenge as well as lengthy emergency response times to calls, requiring call takers, when available, to stay on the line with callers.

#### **Efficiencies:**

- Stevens County 911 has leveraged numerous federal, state and local funding sources to upgrade our radio communications. Currently, all radio consoles, mountain top repeaters and 48v power plants are state of the art.
- Stevens County 911 provides management and oversight for all emergency communications with contracted agencies, providing consistency and efficiencies over all.
- A single Computer Aided Dispatch platform is being used for all law, fire and EMS agencies within the county, providing information sharing across the disciplines.

# Thurston County



## TCOMM 911

POLICE | FIRE | MEDICAL  
Your Emergency – Our Priority

Since 1970, TCOMM911 has been the single-source 911 call and dispatch center in Thurston County. Thurston 911 Communications (TCOMM911) provides three vital public service functions in Thurston County. First, TCOMM911 receives and processes all 911 emergency calls for help from within the County. The second vital function is dispatching the appropriate public safety responders to the emergency – TCOMM911 provides dispatch services to all law enforcement (except Washington State Patrol), Fire Districts and Departments, and Medic One in the County. Third, TCOMM911 owns, operates and manages the Thurston County Emergency Radio Network (TCERN).

TCOMM is an independent, non-profit governmental agency. Established by an intergovernmental agreement following RCW 39.34 and incorporated as a 501(c)3 charitable organization. The agency is governed by an eight-member Administration Board of Directors with a ten-member advisory Operations Board established by the intergovernmental agreement.

The County’s largest city, Olympia, is host to the Washington State Capitol. Positioned south of Pierce County on the shores of the southern Puget Sound and straddling Interstate Highway 5, TCOMM911 receives and processes emergency and non-emergency calls from a wide variety of population – ranging from State legislators to interstate transportation providers. These calls are processed according to the appropriate level of public safety response based on protocols determined in conjunction with law enforcement, fire service and Medic One. TCOMM911 also works closely with Washington State Patrol on state highway and I-5 responses as well as responses to the Capitol campus.

The agency is self-sufficient – funded by three revenue sources: a Thurston



County emergency communications sales/use tax, an excise tax on devices capable of accessing 911, and grants, leases, and non-member fees.

## THURSTON COUNTY

Population: 290,536

Area: 721 Square Miles

1 - PSAP

8 - Law Enforcement Agencies

12 - Fire/EMS Agencies

47 - Telecommunicators

8 - Supervisors

10 - Admin/IT/Support

### 2019

Calls for Service: 249,000

Total Telephone Activity:  
400,436

911 Calls Received: 150,802

Budget: \$8.2 million

Revenue: \$9.8 million

- Emergency Communications Sales/Use Tax – 62%
- 911 Excise Tax – 29%
- Grants, Leases, etc. – 8%

### **Successes:**

- Previously TCOMM911 was a Thurston County department known as CAPCOMM, Thurston 911 Communications (TCOMM911) was established as an independent agency in 2010.
- Thurston County successfully passed the 1/10<sup>th</sup> of 1% emergency communications sales and use tax in 2002 and an additional 1/10<sup>th</sup> in 2019.
- The additional emergency communications sales/use tax will fund the replacement of the emergency radio network and contribute the operations of the emergency communications network.
- Staffing is often a huge challenge for 911 agencies; TCOMM911 has enjoyed full or near full employment since its inception.
- The TCOMM911 team maintains high quality standards in the delivery of a vital public safety service.



### **Challenges:**

- Although TCOMM911 maintains good staffing levels recruitment, hiring and successful retention of new Public Safety Telecommunicators is a challenge. The agency typically conducts two recruitments a year just to maintain staffing levels.
- Because of the frequent recruiting and hiring processes, the agency is constantly in training mode. New employees take up to 18 months to become fully competent with call intake, fire and law dispatch.
- Negative employment turnover usually occurs within the first 18 months of hiring. 911 telecommunications is a very difficult profession...one that some candidates are unable to master.

### **Efficiencies:**

- 2010, TCOMM911 became independent realizing substantial savings.
- 2014, TCOMM911 entered into a consortium with Clark Regional Emergency Services Agency (CRESA) and Wahkiakum County 911 for the purpose of sharing a single geographically diverse telephone system for handling 911 emergency and non-emergency calls.
- 2016, Administration staff was reorganized enabling the addition of previously frozen positions following the great recession.
- 2019, TCOMM911, CRESA, and Wahkiakum renewed the consortium when upgrading the phone system and added a new partner from Chelan and Douglas Counties – RiverCom 911. Sharing telephone equipment in a host and remote configuration saves funds on the capital purchases and with on-going support and maintenance. The consortium is actively seeking new partners to realize the efficiencies on a greater scale.

Wahkiakum County

Wahkiakum County Sheriff's Office

Sheriff Mark C. Howie



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P. O. Box 65/64 Main Street ,Cathlamet, WA 98612  
Chief Civil Deputy Joannie Kuhlmeier

360-795-3242 or 360-465-2202 Fax: 360-795-3145  
Undersheriff Gary Howell

Population: 4426

Square miles: 263

12 Law/Fire/EMS/Other agencies served (Fire/EMS all volunteer agencies)

Personnel:

1 Director (also Jail Commander, Accounts Payable, Chief Civil Deputy)

8 Call takers (cross trained Corrections)

1 Supervisor (Call taker also)

1 Admin (does Call taking a %

1 GIS Technician (shared with County

IT Support (.3 FTE- is also the DEM for the county

2019:

911 calls- 1,849

Admin calls- 12,690

Calls for Service- 4,396

Total Budget- \$816,897

Revenue Source- Phone excise tax and State 911 Operations Contract

Text to 911- 2016

Wahkiakum County (wuh-Ki-uh-kuhm), the 2<sup>nd</sup> smallest county in Washington based on population, was created by the territorial legislature in 1854. The name comes from a Kathlamet Indian village located on the north bank of the Columbia River near the present town of Cathlamet. Chief Wakaiyakam, whose name the village took, is buried in Pioneer Cemetery in Cathlamet. Wahkiakum means "tall timber" in Chinook.

Cathlamet, county seat of Wahkiakum County, got its name from the Kathlamet Indians, a Chinook tribe. The tribal name comes from the Chinook word "calamet," meaning "stone" and was given to the tribe because they lived along a stretch of rocky river bed. Cathlamet was sighted in 1792 by Lt. W.R. Broughton, while verifying Capt. Robert Gray's reported discovery of the Columbia River. In 1805, the Lewis & Clark Expedition found the Kathlamet and Wahkiakum tribes living here during their Northwest Expedition and they camped at the present-day Vista Park in Skamokawa where they traded with the Indians. James Birnie of Hudson Bay Company settled here in 1846 and named the area Birnie's Retreat. The name was later changed to Cathlamet in 1851. Other communities in Wahkiakum County include Puget Island, Skamokawa, Grays River, Rosburg, and Deep River.

Wahkiakum County has a sole PSAP that is housed with the Sheriff's Office and county jail. All call takers are cross trained Corrections Officers. One of our challenges is hiring staff that are capable of doing both jobs- one more physically demanding and the other needing multi-tasking skills, and both requiring great verbal and social skills.

Due to our rural location, radio and cell phone coverage is always a challenge. We currently have a working group to work on funding for an upgrade to our radio infrastructure.

Wahkiakum was an early adopter of Text to 911. Our plan was to be one of the first few in the state, however, we did not have the cell companies needed to accomplish that. After a new provider located a tower in our county, we were able to connect the service in 2016. We have the capability to transfer text sessions back and forth with our neighbors in Oregon, who we regularly transfer voice calls to.

Wahkiakum County is part of a host/remote phone solution. We are part of a consortium that includes TCOMM, CRESA, and RiverCom. This has enabled funding efficiencies in equipment centralization, as well as providing geo-diversity in call routing to mitigate failures due to unforeseen hazards. This partnership has afforded us backup and support by larger PSAP's for IT maintenance, training, technical knowledge, etc. This is a model that the SECO is embracing and promoting to get other PSAP's working toward similar efficiencies in this next generation of 911.

## Walla Walla County

Walla Walla Emergency Services Communications (WESCOM) is the designated Public Safety Answering Point (PSAP) for Walla Walla County, located in southeastern Washington.

Walla Walla County is primarily an agricultural region, known historically for the famous Walla Walla Sweet Onions, and now recognized as an international Wine destination. Small town charm blends with more than 120 world class wineries, award-winning restaurants, history, arts and culture, to create increasing popularity as a tourist destination.

The City of Walla Walla is home to both Whitman College and Walla Walla Community College, and Walla Walla University is located nearby in College Place, Washington. The Washington State Penitentiary is also located in Walla Walla, providing correctional services to the state since 1886, a few years before Washington gained statehood. It is the second largest correctional facility in the state. In addition to Providence St. Mary Medical Center, Walla Walla is also home to a large United States Veteran’s Administration Hospital.

While the area is rich with the natural beauty of the Blue Mountains and many rivers, creeks and streams, it is also subject to its share of hazards. Within the last 25 years, Walla Walla County has faced two major flooding events with widespread property destruction. In this current year, we are still recovering from a significant flood event in February with damages approaching \$20 million and impacting the City of Walla Walla, City of Waitsburg, and Walla Walla County as a whole. Personal property loss alone exceeded \$3.4 million, with structural losses in excess of \$4.5 million. Damage to government infrastructure totaled more than \$8 million.

In addition to flood hazards, Walla Walla County is also subject to wildfires, severe storms, and is at a high-risk rating for earthquake.

Walla Walla Emergency Services Communications (WESCOM) is a division of the Walla Walla Police Department, which serves as the Public Safety Answering Point (PSAP) for 911 calls and provides, through a multi-agency user’s agreement, dispatch services for the City of Walla Walla Police, Walla Walla County Sheriff’s Office, and College Place Police Department. We also provide minimal dispatch services to the USVA Police.

Fire and Emergency Medical Services dispatch is provided for the cities of Walla Walla and College Place, and for rural fire districts 1,3,4,6,7 and 8.

Walla Walla County owns both the 911 phone and radio dispatch infrastructure including towers, base stations, repeaters, microwave system, and PSAP consoles. And, while the system is owned by Walla Walla County, it is managed entirely by the City of Walla Walla.

One of the unique features of WESCOM is our unusually low rate of personnel turnover. While many centers face continual turnover of dispatch personnel, our center is staffed with a majority of dispatchers that have made this service their career choice, many with decades of service provided to our citizens and first responders.

Population: 60,922  
Area: 1,299 Square Miles  
1 PSAP  
14 Fire/EMS/Law Agencies  
12 Telecommunicators  
3 Supervisors  
2 Admin/Support  
2019  
• Calls for service: 85,681  
• 911’s received: 22,633  
• Business calls: 63,048  
Budget: \$2.2 million  
Revenue: mix of phone excise tax, State Grant and user fees.

### Successes:

WESCOM has successfully transitioned to the new statewide ESINET II NG911 system and is preparing to implement both Text to 911 service, and RAPIDSOS services during calendar year 2020.

WESCOM now operates on a joint CAD and Records Management System which is shared with Columbia County. Additionally, the CAD system is also shared with the City of Milton-Freewater, Oregon.

WESCOM was successful in receiving a USDA Small Communities grant which funded a significant portion of the installation of a needed remote radio site to provide enhanced radio coverage in a sparsely populated portion of Walla Walla County.

### Challenges:

1. Finding dedicated funding to help reduce the need for State funds and escalating user agency fees.

Finding sufficient funding to cover costs associated with the dispatch side of 911 calls for service. While 911 taxes cover a portion of the costs associated with the receipt of 911 calls, these taxes do not cover costs associated with dispatching the needed Law Enforcement/Fire/EMS services to the reported emergencies. Evolving radio technologies and interoperability solutions are expensive, and electronic equipment has limited service lives. While 911 is critically important to public safety, there is a huge gap in meeting the need for funding of the costs related to maintaining effective dispatch communications systems.

2. Finding funding for the relocation of the existing PSAP.

WESCOM is currently located in downtown Walla Walla, at the intersection of 2<sup>nd</sup> & Rose Streets. This current location is directly across the street from the tallest building in Walla

Walla, which is the historic Marcus Whitman Hotel. WESCOM is co-located with the Emergency Operations Center and Walla Walla County Emergency Management. The U.S. Army Corps of Engineers Mill Creek flood control project channel runs directly under the parking lot and building adjacent to the PSAP.

Unfortunately, due to decaying infrastructure, a significant area of the parking lot has been determined to be unsafe and is physically barricaded to prevent people from parking there. There is an identified collapse hazard which could result in the parking area falling into the river flood control channel below street level. This loss of available parking is particularly evident during any activation of the Emergency Operations Center as there is insufficient parking for those that need to be functioning within this facility.

Because of an identified earthquake hazard in Walla Walla County, as well as a history of significant flooding and high water flow in the Mill Creek channel, the current location presents dangers of building compromise from falling debris from the towering hotel structure, plus the hazard of potential collapse of the area to the west of the WESCOM building.

### Efficiencies:

Walla Walla Emergency Services Communications (WESCOM) and Columbia County 911 share a CAD System (Tyler Technology/New World), along with the Milton-Freewater Police Department in Oregon. This multi-agency sharing of a single CAD platform has reduced costs for each agency and allows all regional agencies to view and have situational awareness of calls in their bordering jurisdictions. This sharing also allows for more efficient transferring of call information between jurisdictions, and redundancy allows for one PSAP to handle calls for another.



## Whatcom County



What-Comm 911 is located in the City of Bellingham in Whatcom County. Bellingham is the largest city in Whatcom County with a population of 90,000. Bellingham is a waterfront town that attracts many visitors, especially in the summer. We have a large college population and being so close to the Canadian border we have a large transitory population of Canadian shoppers and visitors.

Canada borders Whatcom County to the north. There are 4 border crossings in our county. The Cascade mountains are found on our eastern border separating Whatcom County from Okanogan County. Skagit County is at our southern border and several bays separate Whatcom County from San Juan County to the west.

Whatcom County enjoys a diverse landscape featuring Mt. Baker, numerous lakes, as well as several bays and beaches. Search and rescue calls are common during the winter ski season as well as the summer recreation season. Our diverse landscape creates challenges for radio communication as well as access to some areas of our county. The Newhalem and Diablo lake areas are within in our county, but one must travel through Skagit County to access the area. Pt. Roberts is another remote area and it is accessed through Canada. And Lummi Island must be accessed via ferry.



What-Comm 911 is the primary PSAP for Whatcom County and operates under an interlocal agreement with 9 law enforcement agencies. While What-Comm receives all 911 calls for Whatcom County, Fire and EMS calls are transferred to a secondary fire dispatch center that also serves as our back-up center. What-Comm relies on 911 tax revenue and user fees for funding.

## Whatcom County

Population: 225,300

Area: 2,503 Square Miles

1 PSAP

9 Law Enforcement Agencies

25 Telecommunicators

4 Supervisors

5 Admin/IT/Support

### 2019

Calls processed: 289,712

911 calls received: 138,598

Other emergency lines: 43,354

Non-emergency calls: 32,421

Outgoing calls: 75,339

Budget: \$5.3 million

Revenue: 911 phone tax, user fees, and state grant.

### **Successes:**

- What-Comm has improved our hiring and training process resulting in a low turnover rate of 8% and longer retention. 20% of our dispatchers have 20 or more years experience and 50% of our staff have 10 or more years experience.
- In the past 4 years What-Comm has purchased a new 911 phone system and a new CAD system.
- In spite of a small and aging facility, in the past 2 years we have maximized space and efficiency by remodeling our console room and training room.
- What-Comm moved to a civilian administration in 2014 and added Dispatch Supervisors in 2017. Opportunities for advancement and involvement have greatly increased for dispatchers.
- In the past 2 years What-Comm has added 3 border towns as user agencies. These municipalities were previously dispatched by the US Border Patrol. Having all Whatcom County law enforcement agencies dispatched from What-Comm has improved interoperability between agencies and has improved the level of service for those 3 border towns.

### **Challenges:**

- Funding is a significant challenge. What-Comm relies on 911 tax revenue and user fees to support our facility and operations. Tax revenue covers roughly 40% of our expenses leaving our user agencies to bear the remaining burden. Our user agencies have their own economic struggles and are facing larger increases in user fees every year as our cost of doing business; in particular the cost of keeping up with and maintaining technology, continues to increase.
- What-Comm has not sought any portion of the .2% emergency communication sales tax. Our county has a high sales tax rate and is considering sales tax increases to cover the cost of a new jail as well as to address our aging radio infrastructure.
- Whatcom County radio infrastructure is aging and overdue for a significant upgrade.
- Due to the diverse geography of Whatcom County, there are areas where radio coverage and cell phone coverage is deficient. This can lead to difficulty in locating callers as well as difficulty in communication with callers and responders.

### **Efficiencies:**

- What-Comm and our secondary PSAP, Prospect (fire dispatch) serve as each other's back-up facility.
- What-Comm and Prospect share a CAD system (including AVL and mapping), enabling each center to see and add information as needed to each other's incidents.
- What-Comm and Prospect share a host-remote 911 phone system with What-Comm hosting the system. This enables us to easily transfer calls between centers and to conference calls between centers as necessary.
- What-Comm created a Tactical Dispatch program. Trained Tactical Dispatchers respond to the command post of major incidents when requested and manage that incident separately from our normal dispatch operations.



Whitcom 911 is located in Pullman, along the rolling hills of the Palouse region of southeastern Washington. Whitcom is the Public Safety Answering Point (PSAP) for the region and dispatches all police, fire and EMS for Whitman County, Asotin County, Moscow, ID, and the Nez Perce Tribe, to include Washington State University and the University of Idaho. Our dispatch team receives and processes 9-1-1 and non-emergency telephone calls, and coordinates responses for Law, Fire, and EMS services.

The Palouse is close to mountain ranges, scenic lakes and rivers that offer an abundance of diverse recreational options for outdoor enthusiasts. Although the area is generally rural, there are many options for local cultural and community events throughout the year including PAC-12 sports, arts, and entertainment.

Whitcom 911 is governed by an Executive Board of Directors made up of participating interlocal partners, Whitman County, WSU, and the City of Pullman. The eight-member Executive Board is composed of two voting members from each interlocal partner, and one voting member each from Asotin County and the City of Moscow.



## WHITMAN COUNTY

Population: 50,104

Area: 2178 Square Miles

1 PSAP

2 States (Washington & Idaho)

2 Universities

1 Sovereign Nation (in 5 counties in Idaho)

2 Washington Counties

70 Fire/EMS/Law/Public Works agencies

18 Telecommunicators

2 Supervisors

6 Admin/IT/Support

### 2019

Call for service: 124,721

911's received: 34,143

Business calls: 90,578

Budget: \$3.2 million

Revenue: Interlocal member user fees, Grants, Taxes and Contracts.



### **Successes:**

- In 2004, Whitcom regionalized with Moscow, Idaho and Asotin County. In 2015, Whitcom began dispatching for the Nez Perce Tribal Police.
- Whitcom has maintained a good working partnership with our agencies and saved taxpayers a significant amount of money, with not having to operate two or three additional 911 dispatch centers.
- Because of the geographical footprint Whitcom covers, dispatchers are able to get emergency information broadcast across multiple jurisdictions quickly and have played a significant role in timely crime solving for many in progress incidents.

### **Challenges:**

- Finding dedicated funding to help reduce the need for State funds and user agency fees.
- Whitcom struggles with successful retention of new Dispatchers, and turnover often results in unsustainable overtime and additional stress on current employees.
- Radio and cell phone coverage is a significant operational challenge as well as lengthy emergency response times to calls, requiring call takers, when available, to stay on the line with callers.

### **Efficiencies:**

- Having a regional PSAP has reduced the duplication of multiple agencies having to purchase expensive dispatch equipment.
- A single merged CAD platform is utilized which allows all agencies to share call data, mapping and field data.
- All Whitcom Dispatchers are cross trained as call takers and dispatchers for all agencies.



# WASHINGTON STATE PATROL COMMUNICATIONS



## SPECIFICS

**Population:** 7.288 Million (2016)

**Area:** 18,699 Lane Miles

**PSAPS:** 8

## PERSONNEL

**Telecommunicators:** 103

**Trainers/ Lead**

**Telecommunicators:** 28

**Operational Supervisors:** 20

**Managers/ Executive**

**Leadership:** 11

**IT Support:** 2

**Administrative Support/Public**

**Disclosure:** 2

## 2019 STATS

**Calls for Service:** 321,826

**911s Received:** 528,848

**Business Calls:** 854,790

**Budget:** \$13,312,248

**Revenue Sources:** State Patrol

Highway Account, State E911,

General Fund, Interagency

Reimbursement, King County

Escrow, and Indirect Pool

The  
Washington

State Patrol Communications Division serves the motoring public, state troopers, commercial vehicle enforcement officers and contracted state and federal agencies by answering business and 911 calls and providing dispatch services, completing data and record requests and other support services as requested. Contracted state and federal agencies include the Army Corp of Engineers, Bureau of Land Management, Gambling Commission, Homeland Security, Liquor & Cannabis Board, Washington State Parks, Washington Department of Fish and Wildlife, U.S. Fish & Game, U.S. Forest Service, U.S. Marshals and more. Services are provided via WSP's eight Communications Centers located throughout Washington State.

### SUCCESSSES

- The WSP Communications Training Program received the internationally recognized certification from the Association of Public-Safety Communications Officials (APCO) International in January, 2020.
- Aged dispatch consoles were replaced in three of the eight WSP Communications Centers.
- Computer Aided Dispatch (CAD) software and hardware were refreshed in 2020.

### EFFICIENCIES

- A single merged CAD platform allows all WSP Communications Centers to share data and transfer incidents as a call moves through jurisdictional and geographical boundaries.
- Proper redundancy with CAD, radio and telephony allows WSP Communications Centers to back-up one another, allowing for a fully self-sufficient Continuity of Operations Plan (COOP).
- WSP Communications Centers operate with very lean staffing levels, however staff are trained so that they can support any WSP center with the same professionalism and focus on public and officer safety regardless of the location.
- The Communications Division improved and strengthened policies and procedures in our efforts to gain our APCO Training Certification and the Commission on Accreditation for Law Enforcement Agencies (CALEA) Communications and law enforcement accreditations.

### CHALLENGES

- Reduced funding and budget cuts due to Washington State revenue shortfall from the COVID-19 Pandemic.
- Staffing retention, recruitment and hiring challenges continue to occur in three of the eight communications centers.



**“WE ARE THE LIFELINE”**

## Yakima County

SunComm Communications is the primary PSAP in Yakima County. Yakima County is the second largest county in Washington State, with 4300 square miles and more than 250,000 residents, who represent diverse communities, terrain and economics. The primary base of economics are commercial agricultural and manufacturing.

The Yakama Tribe and the U.S. Army Firing Center are also located in Yakima County and are part of Yakima County's strategic emergency response plan. Included in SunComm's Public Safety Communications network are the Yakima County Sheriff's Office Dispatch, Lower Valley District #5 Fire Dispatch, Grandview PD Dispatch, Toppenish PD Dispatch, US Army Firing Center, and the Yakama Tribal Dispatch.

The county geography is often referred to as the Upper Valley, which is considered north of the natural "Gap" located on US 97 between the City of Union Gap and the Lower Valley, When referring to the Lower Valley, it is considered to be all geographic areas of the county south of the "Gap". The City of Yakima is the largest city within the county and is the county seat and supports a population of 97,000 residents.

SunComm is a Division of the City of Yakima's Fire Department. SunComm 911 is governed by two Inter-Local Agreements (ILA). The first is an ILA between the county and cities that consolidates 911 within the county and establishes the bylaws. The second is an ILA between the county and city, establishing the responsibility of daily management of 911 services. The operation of 911 has oversight provided by two boards. First, is an Administrative Board, comprised of elected officials and the second is an Operational Board, comprised of Chiefs from agencies across the county. Dispatch operations are under the direction of the City of Yakima Fire Chief, with input from the user agencies.

SunComm's primary location is currently equipped with 12 total 911 consoles. Seven of these consoles are considered dual position consoles, which support both dispatch and 911 simultaneously. In addition, SunComm has a stand-alone back-up center with five dual position consoles and a separate CPE system.

### **Accomplishments:**

The entire county consolidated to a single CAD application in 2010, which assisted in continuity of operations. Even though radio communications are still a challenge, law, fire, and EMS can view one another's CAD calls, including updates, locations and status, thus making it possible to use a silent dispatch procedure in emergent cases.

Additionally, the county and the City of Yakima joined together in 2014 and repurposed a partially vacant county facility to house the Office of Emergency Medical Services and SunComm 911.

The county installed and supports a robust data network, which has the capability to run north into Kittitas County and south into Benton County. This provides a strategic gateway to leverage public safety assets throughout the valley.

### **Challenges:**

SunComm's first and foremost challenge, like many PSAPs, is the ability to attract, hire, and retain staff. SunComm's retention rate after 2 years of service is very good. Less than 2 years many of the new employees, especially at the less than 6 month time of service, decide the career is not



for them and their families and resign. Benefits and pay do not seem to be a contributing factor in retention or recruiting.

The second challenge for public safety communications in the Yakima Valley is the ability to build continuity between agencies to adopt one public safety radio infrastructure, compatible with a P25 platform, in order to provide first responders an expanded radio coverage network and the ability to sustain multiple incidents. The underlying issue is the ability to fund such a system without an additional tax burden on the residents. At this time, Yakima County has not considered adopting the communications tax as a resource to resolve this issue. Emplacing such a radio system would reduce the multiple, incompatible radio systems, consolidate infrastructure, maintenance, support and upgrade critical systems that are supported under the manufacturer. In addition, these new systems would provide the recommended number of radio channels necessary to support all emergency services in Yakima County.

Lastly, as public safety support companies are forced to minimize their staff, the response times for CPE troubleshooting and repair continues to increase. SunComm's primary 9-1-1 customer premise equipment (CPE) phone tech position was eliminated by their company May 1, 2020. We are now forced to rely on a tech from 80 miles away who also serves as support to other PSAPs throughout Eastern Washington State.