

Burnett County

Washburn County

Wisconsin State Patrol

PSAP Consolidation Feasibility Study



KENT THERKELSEN
& ASSOCIATES
CONSULTING

October 10, 2011



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Ms. Roberta Sichta
Emergency Management Director
Burnett County
7410 County Road K
Siren, WI 54872

Dear Ms. Sichta:

We are pleased to provide the final report on the Burnett and Washburn County Public Safety Answering Point (PSAP) consolidation study we were commissioned to provide. The report contains our findings, conclusions and recommendations relating to the financial and operational feasibility of consolidating the PSAPs for both counties, and locating the newly created operation at the Spooner Post of the Wisconsin State Patrol.

While we have concluded that the Spooner facility will not meet the requirements for a two county PSAP, we did find a high level of feasibility for the consolidation from the perspectives of cost and operations. The consolidated PSAP will improve public services and responder safety by providing a dispatch center that has an exclusive focus on 9-1-1 and dispatch tasks. We estimate annual operational cost savings at 19% and 10-year Capital Improvement savings at 28%.

Determining the proper site for a new PSAP, creation of an effective governance structure and development of a cost allocation method acceptable to all participants are typically among the biggest challenges in creating a consolidated PSAP. The fact that Burnett and Washburn Counties share similar population and public safety demographics reduces some of the complexities found in other consolidation efforts.

We look forward to meeting with you and the other stakeholders to discuss this report and next steps. Please let me know if you have any questions or comments. Thank you for the opportunity to provide services on this important project.

Sincerely,

Kent S. Therkelsen

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1. Introduction

1.1. Executive Summary

Kent Therkelsen & Associates, Inc. (KTA) was asked by Burnett County to provide a study on the feasibility of combining the Public Safety Answering Points (PSAPs) of Burnett and Washburn Counties and locating the new, combined operation into the existing Wisconsin State Patrol facility in the City of Spooner. This study is consistent with a national trend of evaluating current 9-1-1 call handling and public safety dispatching operations in light of rapidly evolving changes in technology, local government finance challenges and public expectations. Locally, the decisions as to the location and service delivery model for PSAP services has a bearing in both counties on the current service model which combines PSAP and jail operations. For Burnett County, PSAP decisions will impact the final design of their public safety radio system, which is being replaced to conform to the narrow banding requirements of the Federal Communications Commission and to provide improved performance for using organizations

The intended outcome of the study is recommendations provided to the affected decision makers to assist them in the final decision on whether or not to further pursue the consolidation. We were asked to evaluate the feasibility of consolidation based upon the following assumptions:

- A full operational consolidation of the Burnett and Washburn County PSAPs into a single PSAP with governance and organizational structures to be determined by the participating jurisdictions.
- Placement of the consolidated Burnett/Washburn PSAP into the existing Wisconsin State Patrol facility located in the City of Spooner, but remaining as a separate and distinct operation from the State Patrol dispatch center. The newly created joint PSAP and the existing State Patrol dispatch center would operate independently of each other.

The focus of our study was on the feasibility of consolidation from the perspectives of technology, facility and a high-level cost analysis. Based upon the information we gathered and subsequent analysis we conclude that:

1. Both counties would benefit from a consolidation of PSAP functions which would provide improved PSAP services to the public and

responders as well as providing opportunities to achieve cost savings and budget efficiencies.

- PSAP operational cost savings, which are estimated to be in the range of 19% ±, are realized immediately, although transitional costs would consume the first 3-4 years of operational savings. Additionally, a consolidated two-county PSAP would provide:
 - Improved facilities that meet the specialized requirements for PSAP services.
 - Dedicated focus on duties by PSAP and jail staff.
 - Better PSAP staffing levels.
 - A more cost effective path to future technologies such as Next Generation 9-1-1.
 - Potentially improved back-up and redundancy capabilities.
 - More cost efficient use of PSAP technology.
- 2. The Wisconsin State Patrol facility in Spooner does not meet the requirements to host a Burnett/Washburn County consolidated PSAP operation. Available space does not meet the minimum square footage requirements to host the PSAP or provide the type of space required for a 24 x 7 technology rich operational environment such as a modern PSAP.
- 3. If PSAP consolidation does occur, certain duties currently performed by PSAP staff, most notably jail related, would have to be accomplished through other means.

Establishing firm cost estimates for the consolidated PSAP is not possible without a facility location. We have provided high level estimates for operational costs, including personnel and technology support. As is often the case in PSAP consolidations, the highest potential for cost savings comes from the elimination of duplicate technology. This is particularly true for Burnett and Washburn Counties where a consolidated PSAP will require a technical infrastructure that is smaller than the combined technologies of the two existing centers. Combining the current technical infrastructures of the two PSAPs will create the potential for an enhanced off-site back-up capability as not all current resources would be required for daily use in the consolidated PSAP. Long term capital costs savings can be anticipated as these systems are replaced in the future.

PSAP Operating Cost Comparison Summary*						
	Burnett County	Washburn County	Two County Total	Consolidation Estimate	Difference	% Change
Staffing	\$ 414,361	\$ 510,224	\$ 924,585	\$ 799,401	\$ (125,184)	-15.66%
Recurring	\$ 138,626	\$ 116,110	\$ 254,736	\$ 188,020	\$ (66,716)	-35.48%
Total	\$ 552,987	\$ 626,334	\$ 1,179,321	\$ 987,421	\$ (191,900)	-19.43%

Recommendations

Based upon our findings listed above, we recommend that:

- Burnett and Washburn Counties should undertake planning tasks necessary to establish a consolidated PSAP serving both counties. While neither county can be expected to formally commit to a consolidation before facility related issues are identified and resolved, the completion of certain planning tasks will serve to better inform decision makers regarding the decision to proceed and will shorten the implementation process, if in fact, the consolidation proceeds.
- The counties should continue their efforts to identify a suitable facility or site to host a consolidated PSAP. Ideally, such a facility will be sized for future needs and additional participants. Recommended facility requirements are found later in this report.
- Simultaneous to the facility search, the counties should begin a process to establish the core governance and management policies required for a consolidated PSAP, including:
 - **Preliminary Agreement.** While further study and fact finding takes place, an agreement should be established to define representation, voting procedures, and the allocation of necessary costs to complete the PSAP study process. The preliminary agreement **does not commit** the participants to the consolidation, but only to continue in the study until a governance model, funding model and agency-specific financial information is determined.
 - **Shared Governance.** Several different types of governance models are found in PSAP consolidations. It is important that decision makers have a full understanding of the attributes of each model in order to establish a governance structure that best suits the needs of the local environment. Key elements of a shared governance system include;
 - Composition and authority of the governing board.
 - Reporting structure for the PSAP administrator.

- Operating and Capital budget procedures.
 - Funding allocation method.
 - Withdrawal process for member jurisdictions.
 - Ownership of PSAP assets.
 - Complaint resolution process for participating agencies and the public.
-
- **Cost allocation.** Cost allocation procedures must be agreed to early on in the PSAP planning and implementation process. The most common approaches to cost allocation are; 1) population based, or, 2) PSAP activity measurement or a combination of these methods. An allocation method that is clearly understood and deemed fair by all participants is critical to the success of the consolidation.

 - **Human Resources.** Once a governance process has been formalized, it will be crucial for the new PSAP structure to develop human resources policies to guide the development of the staff for the new center. The policy should contemplate the issues of retention of incumbent employees, pay and benefits and work rules.

 - **Radio Planning.** The fact that both counties operate today on separate radio systems is not a bar to consolidation. However, a unified radio system should be considered in long range public safety communications planning. A shared radio network between all participants will increase efficiencies and improve field operations during times where interoperability is crucial.

Our study was confined to the technical, facility and financial aspects of PSAP consolidation for Burnett and Washburn Counties. Assuming that a suitable facility can be established we believe that consolidation is feasible and recommended in the context of operations, technology and finance. We encourage decision makers in both Counties to also evaluate consolidation from the perspective of political feasibility. Taking the time to discuss consolidation issues with the multiple stakeholders in both counties, in order to determine their willingness and readiness for consolidation is crucial. This process may illuminate issues not yet identified, provide an opportunity to clarify the project goals, and dispel misunderstandings and myths surrounding the issue. Thank you for the opportunity to provide this study. We hope it will be valuable to you in consideration of this important area of public safety service delivery.

1.2. Scope of Work

Based upon the requirements provided by client representatives, the scope of our study was to:

- **Document current conditions of the Burnett and Washburn County PSAPs**, including; organization and governance, budgets, operations, workload, technology, human resources and staffing, training, interaction with response agencies, ancillary duties and other key factors in the operation of each PSAP.
- **Evaluate the Technological Feasibility** of combining the two county PSAPs in a single facility.
- **Assess the Wisconsin State Patrol Facility in Spooner** to determine its suitability to host a consolidated Burnett/Washburn PSAP, including evaluation of space requirements for the staff and equipment necessary for PSAP operations.
- **Develop Cost Estimates** for a consolidated PSAP including personnel, equipment and technology, facility and one time transition costs. Providing comparisons to current arrangements over the next ten years.

1.3. Study Methodology

1.3.1. Information Gathering

To help assess the feasibility of consolidation we gathered information through a wide array of sources and methods, including:

- Interviews with Stakeholders.
- Observation of Operations.
- Site Visits.
- PSAP Survey.
- Staff Survey.
- Document Review.

1.3.2. Data Analysis

The information gathered in the processes listed above was analyzed using our experience with other consolidation studies and industry standards for operations, technology and facilities.

1.3.3. Findings & Conclusions

The analysis of gathered data was used to form findings and conclusions relative to the study goals established by the participating agencies.

1.3.4. Assumptions

Many assumptions were used in this study. The major assumptions were:

- The PSAP resulting from the consolidation will be managed as a single operational entity from the standpoint of unified procedures and unified personnel practices. (As opposed to a simple space sharing arrangement in which all entities remain autonomous).
- A consolidated Burnett/Washburn County PSAP located at the State Patrol's Spooner facility will not share operational responsibilities with the State Patrol dispatch operation, but simply share the same building footprint.
- Both counties will remain on their legacy radio systems, at least until the retirement of their separate systems.
- A minimum of two non-supervisory dispatchers will be on duty 24 x 7.
- The PSAP will be equipped with a minimum of three work stations identically equipped, in order to properly service the projected service demands and to provide internal redundancy.

1.4. PSAP Consolidation Overview

In basic terms, Public Safety Answering Point (PSAP) consolidation is the combining of two or more PSAP operations into a single operation. However, there are many variables that can impact the process, consolidation model chosen and the results. The goals of the participants will often drive the

decision making on the variables of organization/governance and cost allocation. The most commonly cited reasons for PSAP consolidation include:

- Service Level Improvements
 - Reduced call transfers resulting from larger service area footprint.
 - Improved management of large scale incidents, natural disasters and multi-discipline events.
 - Improved call flow process and processing times.
 - Enhanced personnel and equipment backup and redundancy capabilities.
- Cost Savings/Financial Efficiencies
 - More efficient use of staffing.
 - Reduction or elimination of duplicate technical systems.
 - Purchase, maintenance and replacement of major systems.
 - Improved response to current system obsolescence.
- Improve Responder Safety
 - Improved dispatcher focus on PSAP duties as ancillary duties are reduced.
- Prepare for future technologies
 - Next-Generation 9-1-1.
 - Next-Generation CAD.
- Accommodate future growth
 - Service area.
 - Additional participants.

Typically, there are local issues in addition to those listed above which generate interest in PSAP consolidation. While potential consolidation partners may have differing goals for the consolidation, it is crucial that all participants explicitly understand the goals and needs for all other participants.

In 2009, we participated in the development of the PSAP Consolidation Guidebookⁱ with the Minnesota Department of Public Safety. The guidebook provides a succinct description of the four major models found in PSAP consolidations:

Full

Full consolidation refers to the consolidation of all 911 answering and emergency dispatch functions (police, fire, and EMS) within a defined geographical area into a single organization. This geographical area can include one or more units of government (e.g. county, city, town, or township). The highest level of service level improvements occurs under this model. Model characteristics include:

- Usually includes services for police, fire, EMS call taking and dispatching.
- The structure of the consolidated PSAP is often a stand-alone agency, a separate department either within an existing county or as an independent organization (e.g. joint powers authority, communications district authority).
- A full consolidation houses employees in a single facility or split among two or more regional facilities.
- Commonly configured as a single organizational or reporting structure, which may include a board, advisory and/or users' group as a mechanism for served agencies to provide input and resolve issues.

Partial

A partial consolidation is the combining of emergency communications for multiple public safety agencies within a specified geographical area, but not all. For example, several Sheriff's Offices may combine their communications into a single PSAP, but fire and EMS handle their own communications individually. Model characteristics include:

- Usually includes communications services for one or two disciplines (police, fire, and/or EMS), but not all.
- Typically set up as part of an existing agency. For example, three Sheriff's Offices decide to combine their 911 call taking and dispatch functions so expansion of one of the existing PSAPs takes place to include the new agencies.
- Usually falls under the organizational structure of the host agency. However, in urban areas the new consolidated PSAP may be large enough to be a stand-alone agency.

Collocation

A collocation of PSAPs refers to the sharing of physical space and, at times, critical PSAP technology such as CAD, 911 answering positions, radio consoles, and logging recorders while remaining completely separate entities. For example, communications for a city police and fire department reside in the same physical space but each remains part of its original organization. Governance for each department remains under its original organization as well. Model characteristics include:

- Participants that are seeking cost efficiencies by the sharing physical space and technology without giving up direct control of actual call taking and dispatching. This model most often occurs when variables do not allow for an actual full or partial consolidation of services.
- Can be used a precursor to a full consolidation. For example, communications for multiple police departments could be collocated as the initial step in a full consolidation. The agencies work side by side while cross training is completed and issues associated with creating a single organization are resolved.

Hybrid

A hybrid model refers to a model that has aspects of both a full consolidation and collocation. A typical example of this model would be the collocation of a commercial ambulance service with a fully consolidated PSAP. Sharing of systems may or may not occur and organizational structures remain separate. A partial consolidation could also potentially share space with a commercial or nonprofit entity as well. However, this document assumes a hybrid model includes full public safety consolidation.

2. Current Conditions

2.1. Service Area Demographics

The service area of the consolidated PSAP under study consists of the Counties of Burnett and Washburn Counties in northwestern Wisconsin. The combined population of the two counties is reported as 31,368 in the 2010 census. The population increased by 17% between 1990 and 2010, but declined slightly between 2000 and 2010. Both counties, with their large numbers of lakes, vacation resorts and vacation homes, experience a

significant influx of visitors and part-time residents, particularly during the summer months.

Service Area Demographics			
	Burnett County	Washburn County	Total
Square Miles	822	810	1,632
1990 Population	13,084	13,722	26,806
2000 Population	15,674	16,035	31,709
2010 Population	15,457	15,911	31,368
% Change 1990-2010	18.14%	15.95%	17.02%
Law Agencies Served	6	5	11
Fire/EMS agencies Served	20	10	30

Population data derived from United States Census Bureau Reports

In both counties, a single Public Safety Answering Point (PSAP) provides 911 answering and fire, law enforcement and emergency medical dispatch services for the entire county. Both counties use Computer Aided Dispatch (CAD) to enter calls for service and document responder actions. The same manufacturer and version of CAD are used in both counties, but are operated as separate systems. The same 9-1-1 customer premise equipment (CPE) is also used in both counties. The CPE is the communications equipment at the PSAP which connects the wireline and wireless telephone networks to the PSAP for the purpose of delivering 9-1-1 calls to the dispatchers. In addition to the voice call, the CPE also provides the dispatchers with caller location and subscriber information for 9-1-1 calls. Both 9-1-1 systems are interfaced to mapping systems which provide a map display to dispatchers of the location of incoming 9-1-1 calls.

While the CAD and CPE systems used in both PSAPs are highly compatible, the public safety radio systems used in the two counties have limited compatibility. Both counties operate VHF radio systems for communications between the PSAP and field units, but use separate frequencies, licensed to specific transmitter locations within the respective counties. Coordination channels are available to dispatchers and field users for events that involve mutual aid or multi-agency coordination, but these channels are not suitable for daily operations.

A detailed technology assessment is included later in this report.

2.2. PSAP Activity Indicators

Determining PSAP activity indicators is an important step in determining the feasibility of consolidation. Receiving calls for service, dispatching emergency responders and responding to field user requests are the core dispatch tasks that require the PSAP to be properly sized, staffed and equipped in order to

provide proper service. Using surveys, interviews and document review, we attempted to document activity indicators for both PSAPs. The information is summarized below.

PSAP Activity Indicators			
	Burnett County	Washburn County	Total
L.E. Agencies	6	5	11
Fire/EMS Agencies	20	13	33
Patrol Units on Duty	4 to 8	4 TO 8	8 TO 16
Law Calls for Service			
2008	N/A	11,804	N/A
2009	8,762	11,962	20,724
2010	8,951	13,605	22,556
Fire/EMS Calls			
2008	N/A	1,317	N/A
2009	2,040	1,406	3,446
2010	2,110	1,464	3,574
Total CAD Events			
2008	N/A	13,121	N/A
2009	11,016	13,368	24,384
2010	11,218	15,069	26,287

A word of caution is in order when attempting to compare activity levels at the two PSAPs since differences in procedures, agency customs, record keeping and use of technology limit the validity of comparisons between the two PSAPs.

Because neither county's 9-1-1 system is equipped with a management reporting software system, a precise count of 9-1-1 calls is not available. Burnett County reported 9-1-1 totals which were derived from the CAD system, which tracks the number of CAD events that began with a 9-1-1 call to the PSAP. This method is limited in several respects; 1) 9-1-1 calls that do not result in a CAD ticket being created are not counted, 2) Incidents with multiple 9-1-1 calls only reflect a single call, and 3) perhaps most significantly, the current CAD system does not count wireless 9-1-1 calls, since they are delivered to the PSAP on different phone trunks than wireline 9-1-1 calls. Washburn County reports their CAD totals as their total of 9-1-1 and administrative calls. This method also limits the accuracy of the call counts. We know that many calls are answered in the PSAP that do not result in CAD

events and that other incidents result in multiple 9-1-1 calls with only a single CAD event being created.

For the purposes of this report we have established estimated 9-1-1 and administrative phone calls using ratios from PSAPs with precise call counts. Our data on other PSAPs shows a range of three to six 9-1-1 calls for every ten CAD events and three to four administrative calls received for every 9-1-1 call received. The table below is based upon the following assumptions:

- .5 calls received on 9-1-1 for every CAD event.
- 3.5 administrative calls for every 9-1-1 call received.

CAD events with estimated 9-1-1 and administrative calls - 2009-2010					
	CAD Events	Estimated 9-1-1	Estimated Admin	Total Calls	Daily Average
Burnett County	22,234	11,117	38,910	50,027	68.53
Washburn County	28,437	14,219	49,765	63,983	87.65
Total	50,671	25,336	88,674	114,010	156.18

2.3. Governance / Organizational Structure

Both PSAPs are organized as operational units of the Sheriff’s Department, providing services to all public safety agencies within the respective counties. Each PSAP is managed by a command level officer in the Sheriff’s Department who also has responsibility for jail operations. In both counties PSAP staff are classified as Jailer/Dispatchers, carrying out both PSAP and jail duties, often simultaneously. Each of the PSAPs staffs a single dispatch position 24 hours a day, 7 days a week. This dispatcher is supplemented by another Jailer/Dispatcher, who carries out jail duties, but can staff the 2nd dispatch position if necessary. In addition to the jail duties which require jailer/dispatchers to leave the PSAP, the dispatchers are responsible for many “jail control” functions such as operation of jail doors and sally port entrances, monitoring prisoner areas on camera and operation of jail elevators.

2.4. Call Flow Processes

Both counties use a call-flow process which is often referred to as “single-stage” dispatching. In this model, the same dispatcher who answers 9-1-1 or seven-digit calls for service is normally responsible for all dispatching tasks necessary for the incident. This includes creating the incident in the CAD system, dispatching responders, documenting arrival and other status changes and documenting final disposition at the conclusion of the call. Single-stage dispatching is the predominant model in smaller dispatch centers, where there is often only one or two dispatchers on duty. In “two-stage”

dispatching, commonly found in larger centers, call-taking and radio dispatching are handled as separate functions. Single-stage call processing is recommended for normal operations if consolidation occurs.

2.5. Training

Dispatcher training is minimal after a dispatcher has completed initial training. In 2011 the total combined PSAP training budget for the two counties is \$3,600, or 0.23% of the operating budget. (Budget analysis complicated by Jail/PSAP combined budgets). Like many small centers, the opportunities for staff training are limited by budgets and staffing needs. Both centers have locally developed operating procedures, which create potential complications for multi-county events requiring a coordinated response with agencies dispatched by other PSAPs. The Association of Public Safety Communications Officials (APCO) recommends that all dispatchers receive a minimum of twenty-four hours of in-service training each yearⁱⁱ. New employee training is conducted similarly today in both centers. Training on jail duties is provided first, followed by dispatch training, which follows a progression of watching, performing under the supervision of a trainer, and then performing independently. New employees typically spend 3 to 6 months in training before they are assigned to work independently. The only certification required in both centers today is the state required certification for accessing the TIME (Transactional Information for Management of Enforcement) criminal justice data base. Training for this certification is conducted on-line. Neither center provides Emergency Medical Dispatch service today, although Burnett County does transfer callers on medical emergencies to North Ambulance Service for the provision of pre-arrival instructions.

2.6. Performance Benchmarks / Quality Assurance

A quality assurance (QA) program is essential for a PSAP of any size or governance model, but particularly important in the consolidated environment where PSAP staff and users alike need to understand what the expectations are for individual and organizational performance. The establishment of performance metrics that are measurable and understood to all will help track progress towards performance goals, identify weaknesses in policy, training and technology, and assist decision makers in their budget resource allocation deliberations. Proper focus on QA will lead to a better functioning PSAP and a higher level of confidence from user agencies and the public. While a quality assurance program can be customized for local needs, the major elements include:

- Performance Benchmarks. Identification of core tasks such as 9-1-1 answering times, processing time for high priority law enforcement calls and the ratio of service complaints to total calls are a few of the

common PSAP performance benchmarks. Benchmarks can be derived externally from sources such as the National Emergency Number Association (NENA) or the National Fire Prevention Association (NFPA). Benchmarks may also be internally established upon the desires of the stakeholders. An example of an external standard is NENA standard 56-005 which states that 90% of all 9-1-1 calls should be answered within 10 seconds and 95% within 20 seconds during the busiest hour of the busiest day.

- Call Sampling. Many PSAPs use call sampling as a proactive measure to review staff performance. Audio recordings and CAD records are reviewed to check compliance with PSAP policies and procedures and customer service expectations.
- Response to Service Concerns. While performance benchmarks and call sampling are intended to yield information on the overall performance of the PSAP as an organization, response to individual service concerns from response agencies and the public is also crucial. While individual dispositions are dealt with in the context of personnel management, providing stakeholders with a summarized view of the nature and quantity of service concerns will demonstrate the PSAP's commitment to performance management, help illuminate complaint trends and provide users and decision makers with a context to evaluate the overall satisfaction with services.

Neither of the two PSAPs has a formal quality assurance program in place today. Like most PSAPs nationwide, there are no formalized performance benchmarks in place and service concerns are dealt with on a case-by-case basis after an issue has been raised by the public, response agency staff or the PSAP staff.

2.7. PSAP Interoperability

The shared boundaries and shared transportation corridors in the study area make inter-PSAP communications a regular event, taking place multiple times each day. As the percentage of 9-1-1 calls made with wireless phones continues to increase, so too does the percentage of calls requiring communications between PSAPs. 9-1-1 calls for emergency situations near county borders are regularly delivered to the adjoining PSAP due to the location of the wireless transmission sites and the call routing rules specific to that site. In addition to this, situations requiring mutual aid from the adjoining county and situations that may be traversing county lines, such as a law enforcement pursuit require rapid communications and coordinated action between multiple PSAPs.

Today, communications between PSAPs in the study area take place in one or more of the following methods:

- Radio. Wisconsin PSAPs are equipped with a “point-to-point” radio frequency that allows direct radio communications between dispatchers in different locations. This method is rapid and generally reliable, although it is not generally available to field units and relies upon a dispatcher monitoring the frequency at the same time as primary dispatch channels.
- 9-1-1 Transfer. Dispatchers can transfer 9-1-1 calls to other PSAPs using the software features available on the 9-1-1 customer premise equipment. Reducing call transfers, which add time and opportunity for error to the call process, is one of the most often stated benefits of consolidation.

2.8. Budgets

Information was gathered from both counties to determine the current level of expense needed to operate the PSAPs. As in our comparisons of PSAP operations, there are challenges in the establishment of direct comparisons due to local differences in budgeting practices and definitions. As is the case in most agency hosted PSAPs, many costs related to the PSAP are absorbed in other budgets. Human Resources, finance, Information Technology and facility services are some of the more significant areas where the PSAP receives significant support services that do not necessarily appear in the PSAP budget. This is further complicated by the fact that in both counties Jail and PSAP budgets are not fully separated.

The tables below are based upon the following assumptions:

- 50% of PSAP/Jail staffing cost allocated to the PSAP.
- Records Management System (RMS) will remain a County function, not included in the PSAP budget.

Estimated Current PSAP Expenditures			
Expenditures	Burnett County	Washburn County	Total
Personnel Services	\$ 414,361	\$ 510,224	\$ 924,585
Technical Support	\$ 42,906	\$ 48,950	\$ 91,856
Other Expenses	\$ 45,720	\$ 17,160	\$ 62,880
Other Departmental Support*	\$ 50,000	\$ 50,000	\$ 100,000
Total Annual Recurring	\$ 552,987	\$ 626,334	\$ 1,179,321

2.9. Ancillary Duties

Ancillary duties refers to the work dispatchers perform that is not directly related to the core dispatch tasks of answering public calls for service, dispatching response agencies, responding to requests from field personnel and documenting responder actions in the CAD system. These duties vary within the two PSAPs in the study area. For jurisdictions with a significant amount of ancillary PSAP duties, this can be a significant issue as those duties must either be accommodated at the new PSAP (with staffing and service implications), discontinued, or accommodated through other means. The table below provides a summarized view of ancillary PSAP duties within the study area.

Ancillary PSAP Task Fulfillment	Burnett County	Washburn County
Sheriff's Department Administrative Phones - 24 x 7	X	X
Local Agency Administrative Phones (After hours)	X	X
Control Jail Doors		X
Control Sally Port Doors	X	X
Dispatch Jail Transports	X	X
Maintain Warrant Files; State/NCIC and Local RMS	X	X
Maintain Citation Files; Local RMS	X	
Maintain MV Accident Files; Local RMS	X	
Test Fire Pagers & Outdoor Warning Sirens	X	X
Page County Public Health Nurses	X	X
Maintain Animal Lost/Found Records	X	X
Maintain After Hours Business Contacts	X	
Record Jail Bonds	X	X
Enter/Maintain Restraining Orders	X	X
Monitor Facility and Jail Cameras	X	X
After Hours Lobby Response	X	X
Monitor Govt. Center/Courthouse Alarms	X	X
Notify Victim Assistance Staff	X	

2.10. Human Resources/Staffing Practices

The total authorized non-supervisory staffing complement for the two centers totals 16 Full Time Equivalent (FTE's). This includes full-time and part-time dispatchers, jail sergeants and PSAP managers in both counties, jail administrators carry out the overall management of the PSAP. Burnett County has two jail sergeants who provide daily supervision at their PSAP but are also responsible for supervision of the jail facility. In Washburn County, PSAP supervisory needs that arise in the absence of the jail administrator are handled by the on-duty patrol supervisor or if none, the Sheriff's Department normal chain of command. The staff complement of FTEs does not include

other county staff with responsibilities involving the PSAP as part of their job duties. This includes; Information technology, human resources, facilities, finance, legal and in each county, one or more sworn Sheriff's staff who have some supervision or management responsibility for the PSAP included in their assigned duties.

Actual and Authorized PSAP Staffing						
	Burnett County		Washburn County		Total	
	Auth. /	Actual	Auth. /	Actual	Auth. /	Actual
PSAP/Jail Administrator	0.5	0.5	0.5	0.5	1	1
Jail Sgts	1	1	-	-	1	1
F/T Non-Supervisory	6.5	6.5	6.5	6.5	13	13
P/T Non-Supervisory	0.5	0.5	0.5	0.5	1	1
Total:	8.5	8.5	7.5	7.5	16	16

Notes:

Both PSAPs managed by Jail Administrator.

Burnett County has 14 f/t and 2 p/t jailer/dispatchers (including jail sgts.) 1/2 of total complement counted as PSAP staff.

Washburn County has 13 f/t jailer/dispatchers. 1/2 of total complement counted as PSAP staff.

Staff attrition in the two PSAPs has averaged 4% over the past four years, well below the national average. The Association of Public Safety Communications Officers (APCO) reported a national attrition rate of 19% in their 2009 update of Project RETAINSⁱⁱⁱ.

Minimum staffing levels for the PSAPs fluctuate very little by time of day. As noted, both centers staff one primary dispatcher 24 x 7 who is supplemented as necessary by a dispatcher/jailer. Nationally, few PSAP performance standards exist to serve as a guide for staff allocation, but there is a growing trend to base staffing levels on public and agency expectations for performance metrics such as 9-1-1 answering time and/or call processing time for police and fire emergency calls. For example, the National Emergency Number Association (NENA) standard 56-005, *9-1-1 Call Answering*, states, "Ninety percent (90%) of all 9-1-1 calls arriving at the Public Safety Answering Point (PSAP) shall be answered within ten seconds during the busy hour (the hour each day with the greatest call volume, as defined in the NENA Master Glossary 00-001). Ninety-five (95%) of all 9-1-1 calls should be answered within twenty (20) seconds." The National Fire Protection Association (NFPA) has established maximum time limit standards for the processing of fire calls.

A major aspect in PSAP planning and operations is availability and survivability for events that are not always predictable, but are always possible. Examples of this in today's PSAPs are back up systems for commercial power and Computer Aided Dispatch and alternate routing plans for 9-1-1 lines. Current staffing practices result in a single dispatcher on duty

for a large share of the day, essentially creating a single point of failure in a critical service area.

While current staffing practices assure a second jailer/dispatcher is potentially available to assist the primary dispatcher, this assumes that jail activity will allow a jailer/dispatcher to immediately abandon jail duties to assume PSAP duties. Staffing the center with a single dispatcher, even during low activity periods creates the risk of the single dispatcher becoming overwhelmed with the demands of a major incident, or becoming physically unable to perform due to illness or injury.

- This combination jail / 911 center staffing model creates the potential for contention in the allocation of limited or finite personnel resources when critical internal (jail) and external (911) events occur concurrently.

The technical complexity of today's PSAP precludes the emergency fill-in by deputies or other non-PSAP staff. Use of part-time employees to improve coverage should be considered if the schedule can be designed to assure retention of their skills and knowledge.

2.11. Collective Bargaining

Human resource planning is typically among the most challenging and sensitive endeavors in a consolidation effort. Pay, benefits, work rules and other terms and conditions of non-supervisory employment in the two PSAPs are defined in collective bargaining agreements (CBAs) that have evolved over years of history and represent stability and predictability to the bargaining unit members. Involvement of each county's human resources professionals is strongly recommended before any actions are taken which may relate to collective bargaining or other personnel requirements.

If PSAP consolidation is pursued, the choice of governance model and organizational structure will be a significant issue for decision makers. If a shared governance arrangement is chosen, the newly consolidated PSAP would likely represent a new employment relationship for all staff members. As such, the current employers need to be aware of current CBA language or other regulation impacting the severance/termination of employment for incumbent staff. The CBAs, along with other personnel policy documents will be useful to decision makers in developing a framework for human resource policies in the new PSAP. This area of planning is further complicated by the uncertainty of public employment labor law while actions taken during the 2011 Wisconsin legislative session are in the process of litigation and judicial review.

CBA Status:

1. Burnett County: CBA between Burnett County and the Wisconsin Professional Police Association/Law Enforcement Employee Relations Division on behalf of the Burnett County Law Enforcement Association. Current agreement term is from January 1, 2008 to December 31, 2010. A successor agreement has not been established, so contract terms remain in place. Section 3.01 of the CBA recognizes the right of management to relieve employees from duty “because of lack of work, lack of funds or other legitimate reasons”. Sections 7.01 and 8.01 define layoff and recall procedures. Employees who terminate in good standing are to be paid for unused vacation hours at the current rate of pay.
2. Washburn: CBA between Washburn County and the Wisconsin Professional Police Association, Local 423. The contract term is from January 1, 2009 through December 31, 2011. Article 2 (E.) recognizes the right of the County to “relieve employees from their duties because of lack of work or lack of funds”. Article 2 (I.) states that the County may “...determine the kinds and amounts of services to be performed pertaining to County operations...”. Layoff and recall procedures are detailed in Article 5. Dispatcher/Jailers have bumping rights into other job classifications covered by the bargaining agreement. Accrued sick leave is paid to the employee upon termination, prorated to the date of termination.

2.12. Staff Survey

A voluntary and confidential survey was provided to all PSAP staff to gather their thoughts on consolidation. 15 surveys were returned, although it appears a small number were filled out by non-PSAP staff. On several surveys the same answers were provided for multiple questions resulting in similar responses to differing questions.

The survey responses showed a scattering of opinions on consolidation with no single theme emerging strongly. It also appears that at least a handful of PSAP staff mistakenly believe the consolidation would include an operational consolidation with the State Patrol. At the same time, several responses reflect a misunderstanding that the two counties would maintain separate PSAP operations in a shared facility. (Co-location).

We do note some consistent hopes and concerns in a few areas:

- Potential exists for cost savings, improved information flow, improved PSAP technology.
- When mentioned, separation of the PSAP and jail functions were cited as a positive in most cases, but viewed as a negative by some.
- Dispatchers are concerned about losing contact with agency jail and field staff.
- While not expressed universally, there were, as expected, concerns expressed about how pay, benefits and other conditions of employment will be resolved.

The questions and summarized responses are listed below. A count of how many times each response appeared on the surveys is also included.

1. Do you think there are possible benefits to PSAP consolidation? Please list them.

<u>Response</u>	<u>#</u>	<u>Response</u>	<u>#</u>
• Cost savings/efficiencies	3	• Improved public service	1
• Jail/PSAP separation	4	• Improved supervision	1
• Safer Jail	2	• Improved training	1
• Better facility	2	• Improved technology/equipment	4
• Better staffing levels	2	• Consistent record keeping	1
• Better information sharing	1	• Broader service area	1
• Improved regional communications	2	• Improved coordination w/WSP	1

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2. What do you think are drawbacks to PSAP consolidation?

<u>Response</u>	<u>#</u>	<u>Response</u>	<u>#</u>
• Loss of contact w/jail & field staff	5	• More PSAP staff needed	1
• Procedural challenges	2	• Less variety of duties	1
• Jail/PSAP coordination diminished	3	• Multi-agency complications	1
• Who's in charge	1	• Local knowledge	3
• Distance from PSAP to jail	1	• Start-up costs	1
• Central location important	1	• Paperwork processing more difficult	2
• None	3	• Liability increase	1

3. What do you see as barriers to consolidation between Burnett and Washburn Counties?

<u>Response</u>	<u>#</u>	<u>Response</u>	<u>#</u>
• Sheriff's relinquishing control	3	• Politics	1
• Cooperation	2	• Egos	1
• Funding	3	• Staffing Issues	1
• Staff integration challenges	1	• Lack of local knowledge	2
• Finding suitable location	2	• Merging procedures	2
• None	2	• HR/pay/benefits, etc	1
• Who's in charge	2		

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4. If Consolidation were to take place, what would be your main concern?

<u>Response</u>	<u>#</u>	<u>Response</u>	<u>#</u>
• Learning another agencies procedures	2	• Paperwork transfer between PSAP and Jail	1
• Adequacy of staffing jail & PSAP	1	• Staffing	2
• Deciding where to work	1	• Costs	1
• None-Long overdue		• Slower jail/PSAP communications	1
• Who is in charge	1	• Pay/benefits/seniority	1
• PSAP mgr caught in agency conflicts	1		

5. Operationally, would PSAP consolidation make your job easier? More difficult?

<u>Easier</u>	<u>#</u>	<u>More Difficult</u>	<u>#</u>
• Better Staffing	1	• Policy & procedures	2
• Better access to data sources	1	• Learning geography	2
• Better focus on PSAP or jail tasks	2	• Loss of contact w/jail and field staff	1
• Less noise and distractions	1	• Different work location	1
• Easier-would remain at jail	1	• Cannot assist in jail	1
• No impact either way	1	• Larger staff =more complicated and more errors	1

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6. Is there any type of additional technology or equipment that could make your job easier with some form of PSAP consolidation? More difficult?

<u>Easier</u>	<u>#</u>	<u>More Difficult</u>	<u>#</u>
• Fully featured CAD system	2	• No	1
• Better Interfaces	1		
• CAD/Mobile interface	2		
• Better data sources	1		
• Improved radio system	3		
• Bring back 10-codes	1		
• No	1		

7. Is there any other information related to PSAP consolidation you would like to share?

<u>Response</u>	<u>#</u>
• Don't overlook staffing needs for the jail	1
• Incorporate more than two counties into the consolidation	1
• This consolidation needs to happen	1
• State Patrol building is not suitable to host this consolidation	1
• Will need at least three, possibly four dispatchers per shift	1
• Cultural differences between the two counties are significant	1
• Worth studying if it could improve efficiency	1
• Strong leadership during transition is crucial	1

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2.13. Legal / Regulatory

Wisconsin Statutes do not present a barrier to multi-county PSAP consolidations. Statute 256.35 (2) (d) states: “Public agencies, including agencies with different territorial boundaries, may combine to establish a basic or sophisticated system under this section”. A sophisticated system is defined as a 9-1-1 system which provides caller location and identity to the dispatcher. Both counties currently provide sophisticated systems for 9-1-1.

Wisconsin Statute 109.07 requires employers to provide written notice to affected employees 60 days in advance of a “business closing” affecting 25 or more employees. The law also provides that the employer must give notice to the State of Wisconsin and the affected employee’s collective bargaining unit. This statute does not appear to obligate either county to provide such notice because the 25 employee threshold is not met.

2.14. Technology

2.14.1. Computer Aided Dispatch

Computer Aided Dispatch (CAD) is the system used by dispatchers to process calls for service from the public as well as events initiated by field personnel. Calls are inputted into the CAD system which can make recommendations for assignment to responders. Dispatchers track status changes of field units and document call resolution when completed.

Other software can be interfaced to the CAD system for additional functionality. Commonly the E9-1-1 system is interfaced to the CAD system, allowing the 9-1-1 subscriber and location data to be transferred to the CAD record without the dispatcher having to re-key the data into CAD. This feature exists in both Burnett and Washburn County PSAPs today. Mapping, mobile data, fire paging and state/federal database queries are other features that the CAD must be capable of accommodating in the consolidated PSAP.

The PSAPs in both counties today are equipped with VisionAir CAD, software version 3.5. VisionAir is a highly featured CAD system, capable of providing the needed functionality of a combined PSAP. Burnett County installed their CAD in 2008 and updated it in 2010. Washburn County installed their system in 1999 with the most recent update in 2010.

Computer Aided Dispatch				
	Make	Version	# of Positions	Year Purchased
Burnett County	VisionAir	3.5	2	2008
Washburn County	VisionAir	3.5	2	1999

VisionAir has expressed concerns about merging the two existing systems into one of the existing CAD servers. Although they acknowledge this approach has been taken at other sites, they believe integrating data from one site to the other will restrict the new PSAP from developing a CAD system which reflects the structure and needs of a consolidated PSAP, but instead forces the new PSAP to simply adopt CAD procedures and definitions of one of the existing systems. They have identified a less expensive and “cleaner” option of having both counties start new on a fresh server after working together to establish set-up and configuration options.

We believe that this issue will require further study by the participants before a final decision is made. There are significant issues to consider with either alternative in terms of both costs and functionality. If the Counties do in fact choose to implement a new CAD system, we recommend a competitive procurement be considered to assess functionality and price.

We recommend that mobile data, interfaced to the CAD system, be added to the CAD system if consolidation occurs. This software allows CAD data to be exchanged between the PSAP and field devices, most commonly a vehicle mounted laptop computer. This is an important process improvement in terms of speed, accuracy and preservation of limited air-time on the public safety voice radio network.

A technology known as Automatic Vehicle Location (AVL) can further enhance the CAD system by providing the dispatcher and properly equipped field units with a map display of the location of AVL equipped units. The system can provide dispatchers with assignment recommendations based upon closest unit to the call and can provide routing instructions to police and fire users, if the mobile is equipped with an interfaced mapping system. The dispatcher’s ability to determine officer location can increase officer safety if an officer is unable to provide location for any reason. The transition budget and operational budgets presented later in this report include costs to equip the PSAP and emergency vehicles with the software necessary for AVL. We estimate that the agency expense to procure the GPS receiver and vehicle antenna to be about \$150 per vehicle, assuming the vehicle is equipped with a mobile data computer connected to the CAD system.

Both counties currently employ mapping software which provides a visual display of the location of 9-1-1 calls and serves as a general mapping resource for dispatchers to assist them in their duties. This would also be the map used to display responder vehicle locations if Automatic Vehicle Location (AVL) was included in the consolidated center CAD system. The Washburn County PSAP uses the VisionAir mapping application, which is interfaced to the CAD system. Burnett County uses “Micro-Data”, which is interfaced to their E91-1 CPE but not the CAD. The role of mapping in the modern PSAP is becoming more pronounced, particularly in view of the forthcoming Next-Generation 9-1-1 which will rely upon GIS and GPS data as opposed to address tables for caller location data. Add to this, the increased use of AVL in responder vehicles and the larger service areas of consolidated PSAPs, it will be crucial to have a robust mapping application, tightly integrated to CAD, 911 and AVL, available to dispatchers.

2.14.2. Communications Consoles

Burnett County: Burnett County is currently using a pair of multi-channel desktop remote controls to operate their radio system. These are not suitable for the purpose and the existing PSAP has very limited radio system functionality due to the limitations of this equipment. This equipment will not be reused in the PSAP.

The Burnett County radio communication project that is currently in the detailed design and engineering phase anticipates two new radio communications consoles to control the new system. Therefore, only a single additional console is necessary to equip the consolidated PSAP. Washburn County: Washburn County is using high quality Motorola Gold Elite consoles (2 positions) that are specifically designed for public safety / service radio communications systems. The consoles are approaching the end of their useful life cycle and the manufacturer is expected to discontinue support within 5 years. Radio communications consoles should be replaced not later than 100,000 hours or 12 years.

Radio Consoles				
	Make	Model	# of Positions	Year Purchased
Burnett County	Motorola	Command Star*	2	2003
Washburn County	Motorola	Gold Elite	2	1991

* Multi-channel desk-top radios. Insufficient capability for future use.

2.14.3. Radio Connectivity

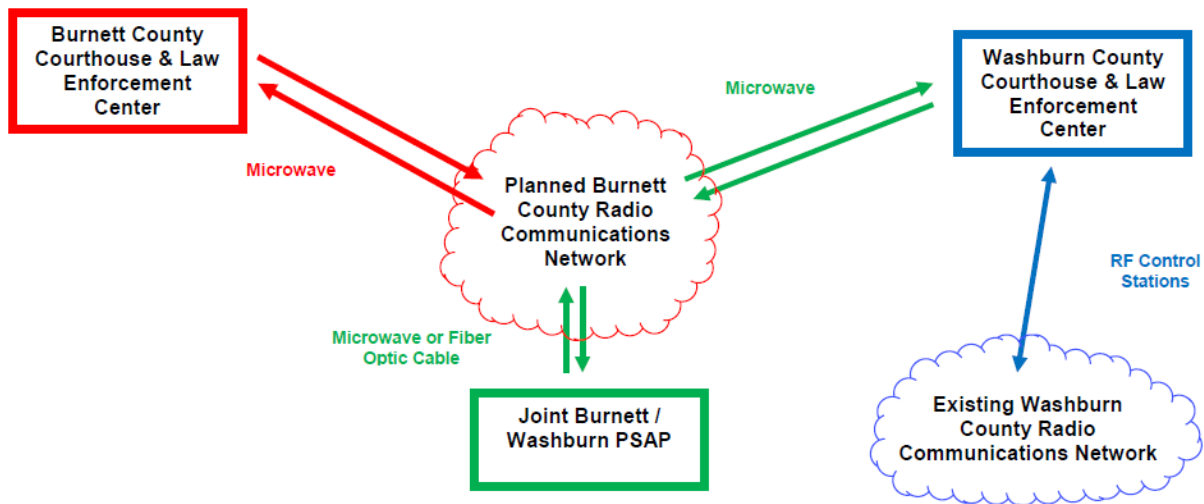
Wherever the PSAP is located, it will be required to have suitable connections to the radio networks of the participants. In this case, to the Burnett County system and the Washburn system.

Burnett Link: The new Burnett County radio system will employ several tower sites all linked by microwave radio to an “anchor site” located west of Siren, Wisconsin. The site is known as “Penta Hill”.

Washburn Link: The existing Washburn County PSAP is connected to their radio network via control station radios. This same methodology could be employed to control the Washburn system from the consolidated PSAP via a microwave link to / from the Washburn County Courthouse.

The simplified diagram below illustrates the conceptual connectivity between a new PSAP and the radio systems for both counties. It should be noted that a significant number of resources needed to establish connectivity are either currently owned or in the process of being acquired by the member counties.

Joint PSAP Connectivity



Key:
 Red = Included in Burnett County Radio Project
 Blue = Existing owned by Washburn County
 Green = New additions attributed to PSAP consolidation

2.14.4. Telephony

E-9-1-1. Both counties receive their 9-1-1 calls on Customer Premise Equipment (CPE) provided by Plant-CML (now Cassidian). 9-1-1 calls placed in both counties are received at Century Link network facilities in Rice Lake and selectively routed to the proper PSAP based upon the location of the caller. Wireline calls are delivered with automatic number identification (ANI) and automatic location identification (ALI). Routing is based upon the Master Street Address Guide (MSAG) data base which is owned and maintained by Century Link.

For wireless 9-1-1 calls, each of the centers has the proper equipment and mapping software necessary to automatically provide a call-back number and locate a caller (within 125 meters most of the time) based upon the caller’s XY coordinates. This is referred to as “Phase II” wireless, which depends upon the cell phone device being equipped with GPS capabilities. Older, “Phase I” devices report a call-back number and the location of the cell tower from which the call originated.

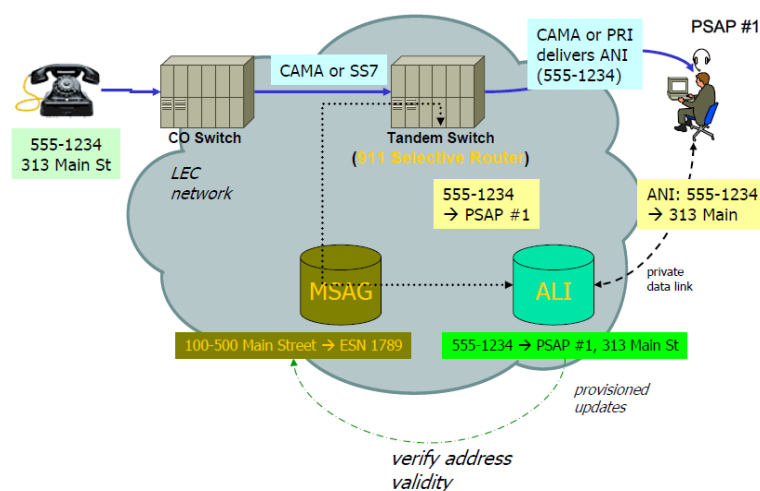
In the event of 9-1-1 failure at either PSAP, calls are automatically re-routed to the other PSAP(s).

E9-1-1 Customer Premise Equipment				
	Make	Model	# of Positions	Year Purchased
Burnett County	Plant-CML	Sentinel	2	2003
Washburn County	Plant-CML	Sentinel	2	2009

Because both counties use the same CPE equipment and network facilities to route calls and manage the master address data base, transition to a single PSAP would be a relatively simple process. Address based routing tables for both counties would be configured to route all wireline 9-1-1 calls to the consolidated PSAP. A similar process would take place at each cell phone tower serving the area to route wireless calls to the new center. Century Link has provided recommendations on PSAP hardware updates for the consolidated center. These costs are provided in the cost section later in this report. Because both counties dispatch all emergency services within their respective counties, 9-1-1 call transfers are few, primarily calls requiring the response of the Wisconsin State Patrol, or calls misrouted by the network. Consolidation will further reduce the incidence of call transfers, which can add 30 seconds or more to call processing times. While this may seem like a short amount of time, it may have a significant impact in a critical emergency situation.

Today, neither county has the Management Information Software (MIS) necessary to provide management data on 9-1-1 calls. The software provides summary data on the number of calls received, answering time, transfers, holds and abandoned call (calls which connect to the phone equipment but are not answered before the caller disconnects) percentages. The software also provides detailed information on specific calls, allowing managers to respond to complaints or concerns about call handling. While an MIS system cannot be added to the current legacy CPE equipment, we strongly recommend the inclusion of MIS software in any future 911 system procurement for the consolidated PSAP. Pricing for MIS is reflected in the system replacement budget in the projected 10 year CIP budget in section 4 of this report.

Current E9-1-1 Call Delivery



Next Generation 9-1-1.

Efforts are underway nationally and regionally to transition the existing 9-1-1 system from a telephone based, voice only system to Next Generation 9-1-1 (NG-911), an IP based system capable of communicating with a variety of device and formats. Commonly cited examples are text messaging, photos, videos and telematic information such as real-time crash data from vehicles equipped with crash sensors. This change is being driven by rapidly evolving consumer expectations, the aging of the 9-1-1 infrastructure and the move towards communications based on Internet Protocol technology.

NG-911 will provide quicker receipt of information in multiple formats, enable transfer of 911 calls with all associated data

between PSAPs nationwide and increase the aggregation and sharing of data, resources, procedures and standards. The National Emergency Number Association (NENA) recently adopted the detailed technical specifications describing the network, components and interfaces required to establish NG-911 service. Implementation is expected to occur over several years and will not require the immediate replacement of legacy systems, such as those currently used in Burnett and Washburn County. Century Link believes that the current equipment in use in both counties will remain serviceable until the transition to NG-911, likely in four to five years.

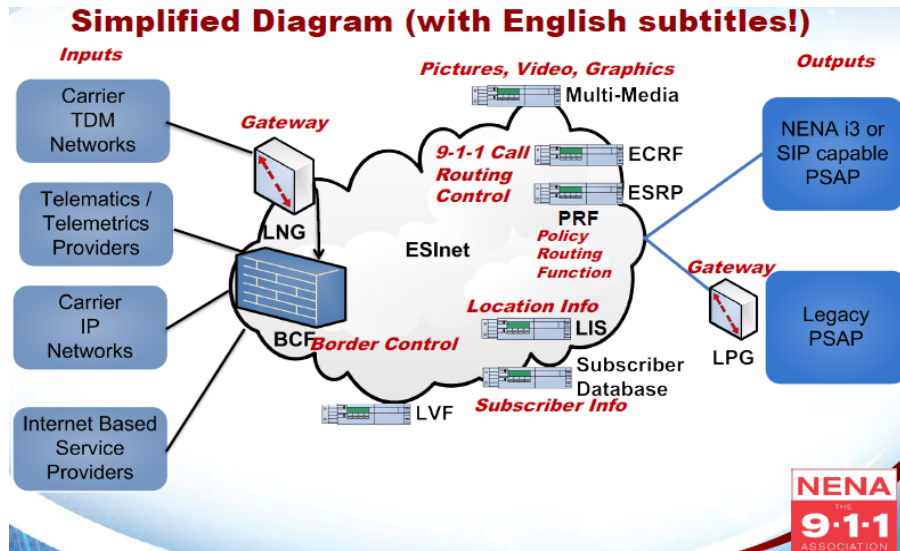
NG-911 Data (voice and other forms) will be transported to the PSAPs on an ESInet, which is a managed IP network used for emergency services communications and can be shared all public safety agencies. ESInets will be privately managed and will normally be designed and built at a regional level. While there has been no state level planning for NG-911 in Wisconsin, it should be assumed that consumer demand and possibly federal regulation will require PSAPs to adopt NG-911 services within the next five years.

NG-911 will bring with it profound changes in operational procedures, required dispatcher skill sets and technology management at the local level to assure that proper coordination occurs between the many applications and systems that will communicate across the system. Equipment upgrades, technology and HR requirements may be beyond the ability of the small, local PSAP to support going forward.

It will be crucial for local PSAP officials to remain aware of emerging NG-911 standards and potential requirements as equipment and network purchasing decisions are made from this point forward. The diagram below, provided by NENA, illustrates the concept of how 9-1-1 calls will be delivered to both Next Generation and legacy PSAPs.

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Next Generation 9-1-1 Call Delivery



2.14.5. Logging Recorder

Both PSAPs have logging recorder solutions in place. The logging recorder is used to record conversations on both the radio and telephone systems.

Logging Recorders				
	Make	# of Channels	Channels in Use	Year Installed
Burnett County	Stancil	12	10	2004
Washburn County	Higher Ground	48	6	2009

The Burnett logging recorder does not have adequate capacity to handle the recording needs for a consolidated center. The Washburn County recorder has adequate capacity but will require further evaluation to determine if it is suitable for this purpose.

3. Facility Assessment

3.1. Background

Burnett and Washburn Counties currently operate 911 Public Safety Answering Points (PSAP) in their respective jail facilities. Burnett County is in the midst of an extensive land mobile radio system replacement project. The study that led to that project identified significant and important limitations in the existing facility and recommended relocation. Economic considerations and conditions have led the Counties to consider a consolidated PSAP operation.

3.2. Potential Site

- 3.2.1. For the purposes of this study, Burnett and Washburn Counties asked us to investigate the feasibility of consolidation of Public Safety Answering Point (PSAP) operations in the Wisconsin State Patrol facility at W7102 Green Valley Road in Spooner Wisconsin.
- 3.2.2. The potential co-location at the Spooner State Patrol facility does not anticipate joint PSAP participation by the State Patrol. The State and the Counties would operate independently even if housed in the same facility.
- 3.2.3. *It is our opinion that consolidated PSAP operations benefit from site neutrality – that is to say that the site should either be jointly owned or leased as opposed to sole ownership by any one participant.*
- 3.2.4. Assumptions: In the evaluation of any facility for this purpose, the following assumptions were considered:
 - 3.2.4.1. Burnett and Washburn Counties would continue to communicate on their independent radio communications systems.
 - 3.2.4.2. *If consolidation occurs we recommend this be reconsidered. Operational and potential economic benefits may be achieved through additional communications resource sharing.*
 - 3.2.4.3. A consolidated facility for the two counties would require a minimum of 3 communications consoles.
 - 3.2.4.4. Space must be provided for related electronics equipment as well as a bathroom, galley and storage.
 - 3.2.4.5. The facility must have sufficient commercial and reliable automatic back up power systems.
 - 3.2.4.6. The facility must be capable of being reliably and preferably – redundantly connected to the using agencies radio, telephone and data facilities.
 - 3.2.4.7. Since the PSAP for the Counties provides critical support to public safety services, it must be operational at all times. The facility must be reasonably secure, its staff

and equipment protected from weather and other elements.

3.3. Facility General

- 3.3.1. Representatives of Kent Therkelsen & Associates visited the Spooner State Patrol facility on June 15, 2011 and met with representatives of the State Patrol.
- 3.3.2. The facility appears to have been originally constructed in the 1960s or 1970s and has been modified through remodeling and additions. The structure has one level above grade (plus a mezzanine) and a below grade basement. The building houses the Wisconsin State Patrol Spooner Post, to include a radio dispatching operation and other State of Wisconsin organizations.
- 3.3.3. Kitchen, bathroom and other common amenities exist in the current building and are presumed adequate for this purpose¹.
- 3.3.4. The building is supported with commercial and emergency power as well as telephone service. The existing trunk capacity is unknown and it is assumed that a joint PSAP would require the introduction of 911 and administrative trunks and customer premise equipment. Staff advises that Internet service to the facility is limited and slow.
- 3.3.5. The facility may have sufficient space to house the related electronic equipment if some rearranging of the existing radio room were to occur.
- 3.3.6. During our tour of the facility, the following spaces were evaluated for potential use by Burnett and Washburn Counties:
 - 3.3.6.1. Existing Wisconsin State Patrol communications room
 - 3.3.6.2. Supply / mail room
 - 3.3.6.3. Sergeant's Office
 - 3.3.6.4. Main level conference room
 - 3.3.6.5. Basement conference room

¹ Assumption that common facilities would be shared between the State and Joint PSAP.

3.4. Facility Specific

- 3.4.1. Existing Wisconsin State Patrol communications room. This room currently hosts two communications consoles and there are plans to modify the space for additional consoles. There is not sufficient floor or equipment space to support the PSAP's needs. The Wisconsin State Patrol communications supervisor expressed reservations about the compatibility of the State and County's being in the same room due to differences in operations and procedures.
- 3.4.2. Supply / Mail Room: This room does not have the minimum square feet to support the Counties needs.
- 3.4.3. Sergeant's Office: Insufficient space.
- 3.4.4. Main Level Conference Room: Insufficient space.
- 3.4.5. Basement Conference Room: This is the only room that comes close to having sufficient square footage for the combined Burnett / Washburn PSAP. Extensive architectural and mechanical remodeling would be required to convert this space to a PSAP. The required remodeling is likely to reach the cost threshold that would require conformity to the American's with Disability Act (ADA) and involve construction of an elevator.
 - 3.4.5.1. We were advised by facility occupants that the room is used extensively by the occupants of the building and others and that reallocation would be difficult.

3.5. Conclusions

- 3.5.1. The Wisconsin State Patrol facility at Spooner is not recommended for use by the potential Burnett / Washburn joint Public Safety Answering Point for the following reasons:
 - Lack of sufficient microwave capacity between Frederick and Spooner to support County operations.
 - Insufficient contiguous space for even minimal operations
 - Insufficient space for expansion
 - Creating adequate space at this site will require significant architectural investment.

3.6. Recommended Facility Requirements

The Following recommendations are considered minimum requirements for the proposed consolidation.

- 3.6.1. Approximate gross square contiguous space of 1500 – 1800 square feet.
- 3.6.2. Sufficient utilities and emergency power.
- 3.6.3. Independent HVAC systems
- 3.6.4. Microwave connectivity (distance & path reliability)
- 3.6.5. Connectivity to voice and data communications systems
- 3.6.6. Reasonable severe weather protection
- 3.6.7. Adequate physical security

Assuming that a new PSAP would be built to accommodate up to five dispatch positions in order to accommodate future growth needs we would estimate the facility to require 1,800 gross square footage as described below. As discussed in section 4.5, if a new facility is established for the PSAP, consideration should be given to the incorporation of other functions in order to achieve greater economies.

PSAP Facility Space Allocation	
Function	Sq Ft.
Operations Floor	500
Administration	200
Break Room	125
Meeting	75
Equipment Room	300
Mechanical/Electric	300
Common Space	300
Total	1800

4. Cost Estimates

4.1. Personnel

Personnel costs are the major driver of PSAP operating budgets, typically accounting for 70 to 80% of total operational costs. Like all branches of public safety, PSAP staffing is based upon predicted work load, with additional staffing in place to handle unplanned emergencies. The table below is our recommended organizational structure for a consolidated PSAP based upon our workload analysis in the operational assessment. Using this structure we

have developed an estimate for personnel costs based upon the following assumptions:

- Conservative estimates. Costs are estimated on the high-side to provide greater certainty for use by decision makers.
- Wage scale. For each of the positions that exists today, we developed a range based upon the highest current wage at the minimum and maximums of the range.
- Placement of staff on the wage schedule. If consolidation moves forward, the PSAP hiring authority will face many decisions related to management of human resources. Those decisions will impact terms and conditions of employment and will likely influence the composition of the staff that will work in the new PSAP structure. In order to estimate the high level personnel cost budget, we made the following assumptions:
 - For non-supervisory dispatchers, we assumed that 85% of staff at opening would be placed at the top of their respective pay range, with 15% at the starting point.
 - We used the existing maximum amounts for both the starting and top wage for non-supervisory dispatchers.
 - We assumed the need for a part-time administrative assistant to assist the PSAP manager.

The table below shows the personnel distribution and cost estimates for staffing, based upon the assumptions provided above. It should be noted that the number of PSAP operational staff (Non-supervisory dispatchers) is based upon our analysis of current workload and equipment.

Position	Hourly Rate	Annual Wage	# of Staff	Annual Position Cost	2011 Estimated	Difference from Current	% Change
Non-Supervisory Dispatcher	\$ 19.00	\$ 39,520	9	\$ 355,680			
Trainee Dispatcher	\$ 17.49	\$ 36,379	1.5	\$ 54,569			
Dispatcher Sub-Total				\$ 410,249	\$ 499,289	\$ (89,040)	-17.8%
5% Overtime				\$ 20,512	\$ 33,492	\$ (12,980)	-63.3%
Administrative Assistant	\$ 16.00	\$ 16,640	0.5	\$ 16,640	\$ -	\$ 16,640	100.0%
Communications Manager	n/a	\$ 60,000	1	\$ 60,000	\$ 53,945	\$ 6,055	10.1%
Staff Total			12	\$ 507,401	\$ 553,234	\$ (45,833)	-9.0%
Benefits Multiplier - 36.5%				\$ 292,000	\$ 337,859	\$ (45,859)	-15.7%
Total Staff Costs				\$ 799,401	\$ 924,585	\$ (125,184)	-15.7%

Staffing Notes:

Assumed 85% of non-supervisory dispatchers at top pay, 15% at starting rate.

Overtime calculated at 5% of annual wage for dispatchers.

When compared to the current staffing at the two PSAPs, our staffing chart shows a reduction of 4 FTEs. The 24 hour a day, 7 days a week operation of the PSAP will require a total of 12 FTEs compared to today's 16. That reduction will be offset by the need for the new PSAP to budget for certain services such as human resources, finance, legal, facility and I/T currently provided within their respective county government organizations. These services could be arranged through several means including contract for services with a member organization, an in-kind services arrangements, private vendor arrangement or combination thereof.

The staffing totals for non-supervisory dispatchers were derived by first determining the total staff hours required to handle the PSAP workload on a daily basis. To properly staff two positions 24 hour per day and a third position 6 hours per day will require 54 staff hours in a 24 hour day. This equates to 19,710 hours annually. We then assumed, based upon other studies, that the average dispatcher will spend 1,846 hours per year at the work station, with the remaining 234 hours accounted for with training, sick leave, vacation and other forms of leave. We assumed that the dispatchers will be paid for meal breaks and required to remain on the PSAP premises for immediate call-back to duty when necessary. By dividing the total annual staffing requirement by the annual hours on duty, we find that 10.6 non-supervisory dispatchers are needed.

4.2. Technology – Capital

The ability to deploy currently owned technology assets to the consolidated PSAP will reduce the start-up Capital investment required to bring the PSAP into service. The CAD system, E-9-1-1 CPE and logging recorder currently in use are suitable, with some re-programming required to serve both counties. Recurring support costs and future investment will also be smaller due to the ability to provide a high level of service with three work stations as opposed to the four work stations currently operated across the two PSAPs.

In the table below we have projected the replacement of Capital equipment over the next ten years, comparing the consolidated PSAP to the projected replacement costs in the existing centers. Cost savings are achieved through the reduction in PSAP work stations from the current four to three in the new center. It will be a policy decision for the participants to determine if a fourth fully capable work station will be supported in an off-site back-up role. Off-site back-up is not included in our comparisons in order to compare current capabilities with the consolidated PSAP.

10 Year C.I.P Comparison	
Burnett-No Consolidation	\$ 372,455
Washburn-No Consolidation	\$ 372,455
Combined-No Consolidation	\$ 744,910
Consolidated	\$ 581,791
Difference from no consolidation	\$ (163,119)
Per County if Equal Share	\$ 288,896
Difference per County	\$ (83,559)

4.3. Transitional Costs

In the table below we have identified the technology related items that must be acquired as part of the new PSAP implementation as well as other technology that we recommend be in place at opening to properly serve the needs of the larger operation.

PSAP Transition Equipment & Services				
Category	Item	Qty	Each	Extended
Radio	Dispatch Radio Consoles	1	\$ 40,000	\$ 40,000
Radio	Additional Computers, Monitors for CAD, 911	9	\$ 1,000	\$ 9,000
Radio	Move 1 new Burnett and 1 CEB to PSAP	1	\$ 2,500	\$ 2,500
Radio	Backup control station radios	4	\$ 7,500	\$ 30,000
Radio	Coordination Base stations	2	\$ 17,500	\$ 35,000
Radio	Microwave to Washburn Courthouse-Includes Antenna	1	50,000	50,000
Radio	Multiplex to Washburn Courthouse	1	15,000	15,000
Radio	Microwave from Washburn Courthouse to PSAP Includes Ant.	1	50,000	50,000
Radio	Multiplex from Washburn Courthouse to PSAP	1	15,000	15,000
Radio	Installation Services	1	\$ 6,500	\$ 6,500
Radio	Microwave from Penta Hill to PSAP Includes Antenna	1	50,000	50,000
Radio	Multiplex from Penta Hill to PSAP	1	15,000	15,000
Radio	Installation Services	1	\$ 8,000	\$ 8,000
CAD	CAD Mobile w/AVL	30	\$ 3,500	\$ 105,000
CAD	CAD Mobile Mapping	30	\$ 1,160	\$ 34,800
CAD	CAD Mapping 3rd Position	1	\$ 20,000	\$ 20,000
Telephone	Reconfigure existing 911 services to new PSAP	1	\$ 32,000	\$ 32,000
Telephone	Administrative Phone System	1	\$ 30,000	\$ 30,000
Office Equip	Laser Printers	3	\$ 1,600	\$ 4,800
Dispatch Furniture	Ergonomic Dispatch Console Furniture	3	\$ 20,000	\$ 60,000
Dispatch Furniture	Dispatch Chairs	4	\$ 1,000	\$ 4,000
	Total Start Up Capital Equipment			\$ 616,600
	10% Capital Equipment Contingency			\$ 61,603
Services	Professional Services	1	\$ 300,000	\$ 300,000
	Sub-total			\$ 978,203
			Minimum	Maximum
CAD	CAD (Reconfiguration or replacement) Includes 10% contingency		\$ 38,500	\$ 143,000
	Transition budget range		\$ 1,016,703	\$ 1,121,203

4.4. Operational Costs

Using the operational cost data provided by the participating agencies and our conservative estimates for current and consolidated costs, we have illustrated the long range operational cost comparisons between the current two-PSAP model and the consolidated PSAP model. The same assumptions and limitations described throughout the report are applicable to this model. Annual increases of 3% and 5% are illustrated. Cost savings are achieved through a smaller staff and the reduced costs to support the consolidated technology infrastructure.

10 Year Operations Cost Comparison Between Current PSAP Structure and Consolidation - 3% Annual Increase						
Current Operations	Year 1	Year 3	Year 5	Year 7	Year 10	Total
Burnett County	\$ 552,987	\$ 586,664	\$ 622,392	\$ 660,295	\$ 721,523	\$ 6,339,376
Washburn County	\$ 626,334	\$ 664,478	\$ 704,944	\$ 747,876	\$ 817,224	\$ 7,180,217
Two-County Total	\$ 1,179,321	\$ 1,251,142	\$ 1,327,336	\$ 1,408,171	\$ 1,538,746	\$ 13,519,594
Consolidated Operations						
Consolidated	\$ 987,371	\$ 1,047,502	\$ 1,111,295	\$ 1,178,973	\$ 1,288,295	\$ 11,319,102
Difference	\$ (191,950)	\$ (203,640)	\$ (216,041)	\$ (229,198)	\$ (250,451)	\$ (2,200,492)
Percent Difference	-19.44%	-19.44%	-19.44%	-19.44%	-19.44%	-19.44%

10 Year Operations Cost Comparison Between Current PSAP Structure and Consolidation - 5% Annual Increase						
Current Operations	Year 1	Year 3	Year 5	Year 7	Year 10	Total
Burnett County	\$ 552,987	\$ 598,055	\$ 634,477	\$ 673,117	\$ 735,533	\$ 6,451,733
Washburn County	\$ 626,334	\$ 677,380	\$ 718,633	\$ 762,397	\$ 833,092	\$ 7,307,477
Two-County Total	\$ 1,179,321	\$ 1,275,436	\$ 1,353,110	\$ 1,435,514	\$ 1,568,625	\$ 13,759,211
Consolidated Operations						
Consolidated	\$ 987,371	\$ 1,067,842	\$ 1,132,873	\$ 1,201,865	\$ 1,313,311	\$ 11,519,718
Difference	\$ (191,950)	\$ (207,594)	\$ (220,236)	\$ (233,649)	\$ (255,314)	\$ (2,239,492)
Percent Difference	-19.44%	-19.44%	-19.44%	-19.44%	-19.44%	-19.44%

4.5. Facility Costs

If suitable PSAP space cannot be arranged in an existing facility, construction of a built-for-purpose PSAP may be the best option to house the consolidated PSAP. While this is likely to involve a major expense for the participating entities, it would provide a more functional, built-for-purpose facility. Construction costs are heavily influenced by the variables of location and timing, but a broad price range of \$390 to \$520 (total project costs) per square foot is estimated for new PSAP construction. This price range assumes acquisition of county-owned land and the construction of a minimal base building. The table below illustrates costs of an 1,800 square foot building based upon the variables of construction and project costs.

Facility Cost Estimates- 1,800 Sq. Ft		
Construction Costs	\$300 /SF	\$400/SF
	\$ 540,000	\$ 720,000
Project Costs@ \$90 SF	\$ 162,000	\$ 162,000
Project Costs @ \$120 SF	\$ 216,000	\$ 216,000
Total Facility Costs	\$702,000-\$756,000	\$882,000-\$936,000

Because of the relatively small facility needed to house the consolidated PSAP, we recommend that consideration be given to locating other functions, such as an EOC or regional training room in the facility in order to achieve greater economies. Architectural services would be necessary to provide a detailed facility and cost analysis for either new construction or renovation of an existing building. The table above is only provided as information for planning purposes.

4.6. Cost Allocation

In any operation shared by two or more entities, the allocation of operating and capital costs has the potential to be the most contentious issue for the stakeholders to resolve. While all participants agree that the cost allocation must be *fair*, the judgment of fairness can be very subjective and very much in the eye of the beholder. While we will stop short of providing a recommendation on a cost allocation model for the consolidation under study, we will provide a high level overview of common methods in use today. The similarities in both population and dispatch activity documented for both counties should make agreement on cost allocation easier.

4.6.1. Usage Based

Usage based systems attempt to connect costs to the workload that each participating entity actually creates for the PSAP. Common examples are 9-1-1 calls or dispatched incidents attributable to each member.

➤ Positives:

- Connects each member's costs to the actual work load their service area generates for the PSAP.
- Easy to administer, assuming availability of reliable records at PSAP.

➤ Negatives:

- Member costs may fluctuate as a result of major incidents such as natural disasters. (Some PSAPs have established longer measurements intervals such as a 3 year rolling average to overcome this issue).
- Selected activities may not be the most accurate measure of work-load.

- Start-up statistics may not be comparable between jurisdictions due to differences in procedures, definitions and technology.

4.6.2. Population Based

Contribution rates for each member are based upon the census population data for that County.

4.6.3. Hybrid

The PSAP is funded through a combination of factors. PSAP usage, property values and population are common factors.

➤ Positives:

- Easy to administer. Based upon readily available information.
- Population component tends to provide some stability even when activity fluctuates.
- Property value introduces ability to pay into formula.

➤ Negatives:

- Does not incorporate transient or seasonal populations.

5. Findings

1. From a technical, operational and financial perspective, the consolidation of the Burnett and Washburn County PSAPs **is feasible**. Major benefits available through consolidation include:
 - a. Separation of PSAP and jail responsibilities. Staff assigned to both of these functions must respond rapidly and appropriately to critical incidents that cannot be predicted. Current staffing practices create the potential for delayed response or contention when critical events occur concurrently.
 - b. Improved management of large scale incidents. Establishing a single point of control over a wide area will result in improved communications between responders and better coordination of resources.
 - c. Improved responder safety. A stronger focus on dispatch duties resulting from reduction of competing duties in the PSAP.

- d. Operational cost savings. Our analysis indicates annual savings of approximately 19% compared to current expenditures, derived primarily through the support of a smaller technology infrastructure resulting from shared use.
 - e. Reduced capital expenditures. As above, the reduction from the current four dispatch positions to three dispatch positions in the consolidated center will result in future savings as expensive technology is added and replaced.
 - f. Transition to Next Generation-911. The NG-911 generation is considered to be the most monumental change in the PSAP industry since 9-1-1 was first introduced in the United States in 1968. The PSAP will be tasked with equipping and training staff for the new capabilities, as well as managing a myriad of policy issues related to receipt, storage and dissemination of vastly increased data received at the center.
2. The Wisconsin State Patrol facility in Spooner is **not feasible** for hosting the consolidated Burnett/Washburn County PSAP. As detailed in the report the facility cannot provide adequate space or facility characteristics necessary to host the PSAP.

6. Recommendations / Next Steps

1. The counties should continue their efforts to identify a suitable facility to host a consolidated PSAP. Although three positions are required to open, ideally, such a facility will be sized for future needs and additional participants. We recommend that the facility begin operations with three dispatch work stations, each equipped to perform all tasks required of the PSAP.

Section 3.6 provides an overview of the nominal site and facility requirements for a PSAP serving both counties. Construction of a new facility or renovation of an existing facility will likely be the largest one-time expense in a consolidation effort. While projecting detailed costs for either a new or renovated facility is beyond the scope of this study, readers are cautioned that hardening an existing facility and assuring proper cable infrastructure can often be as expensive as constructing a new facility.

2. Simultaneous to the facility search, the counties should initiate processes to establish the core governance and management policies required for a consolidated PSAP, including:

- a. Preliminary Agreement. While further study and fact finding takes place, an agreement should be established to define representation and voting procedures, the decision and allocation of costs incurred to complete the PSAP study process. The preliminary agreement **does not commit** the participants to the consolidation, but only to continue in the study until a governance model, funding model and agency-specific financial information are determined.
 - b. Governance. Several different types of governance models are found in PSAP consolidations. It is important that decision makers have a full understanding of the attributes of each model in order to establish a governance structure that best suits the needs of the local environment. Key elements of governance include;
 - i. Composition and authority of the governing board.
 - ii. Reporting structure for the PSAP administrator.
 - iii. Operating and Capital budget procedures.
 - iv. Funding allocation method.
 - v. Withdrawal process of member jurisdictions.
 - vi. Equipment ownership.
 - vii. Complaint resolution process for participating agencies and the public.
3. Cost allocation. Cost allocation procedures must be agreed to early on in the PSAP planning and implementation process. The most common approaches to cost allocation are; 1) population based, or, 2) PSAP activity measurement or a combination of these methods.
 4. Human Resources. Once a governance process has been formalized, it will be crucial for the new PSAP structure to develop human resources policies to guide the development of the staff for the new center. The policy should contemplate the issues of retention of incumbent employees, pay and benefits and work rules.
 5. Radio Planning. Although the two legacy radio systems used today are not a bar to consolidation, a unified radio system should be considered in long range planning. A shared radio network between all participants will increase efficiencies and improve field operations during times where interoperability is crucial.

6. Telephony. Place one set of existing 9-1-1 CPE equipment in service at the consolidated PSAP. Consider placing the other set at an off-site location to provide back- up service in the event of a 9-1-1 outage at the primary PSAP. Rerouting plans to other counties should remain in place for unplanned outages while staff is relocated to the back-up site. Back-up arrangements with nearby centers are acceptable for unplanned service interruptions of limited duration, but add technical complexity and provide a nominal grade of service, not desirable for normal operations.
 - a. Incorporate provision of NG-911 services in the long range planning for replacement of both 9-1-1 and CAD equipment.
 - b. Reduce the PSAPs role in the answering of administrative telephone lines for both Sheriff’s Departments and local public safety agencies. Establish a seven digit phone number at the consolidated PSAP for the public to use for requesting services if not calling 9-1-1.
7. CAD. As discussed in section 2.14.1, if consolidation moves forward, the participating agencies will need to determine whether to integrate the CAD data from the currently separate CAD systems onto one of the current systems, or as an option, replace the current CAD with a new system. The decision will have both financial and operational impacts.

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7. Summary

The goal of this study has been to provide information to help decision makers determine if PSAP consolidation between Burnett and Washburn Counties makes enough sense to merit further discussion and planning. While we have a high level of confidence that with a properly implemented consolidation both counties would receive a higher level of PSAP services at a reduced cost, the decision to proceed will require careful deliberation. Critical decisions to make include:

- Facility. Identification of a suitable PSAP facility, either in the form of an existing structure or new construction is the 1st order of business in determining if a shared PSAP can be further pursued.
- Governance Agreement. Can the counties establish an agreement that will provide each with an acceptable level of oversight and influence on services, but at the same time provide PSAP management with adequate authority to properly direct daily operations?
- Cost Allocation. Can the counties establish a cost allocation method that they both agree is fair and equitable? The similar populations and public safety agency demographics between the two counties provides reason for optimism that this issue can be resolved. Facility and other transitional costs will diminish immediate cost savings, although we cannot estimate for how long until facility costs can be identified.
- Ancillary Duties. As noted, dispatchers in both current centers carry out many duties in addition to the core tasks of dispatching. While some of these duties may continue in a consolidated center, it is likely that others will need to be addressed in new ways.

The rapid evolution of technology, accompanied by heightened agency and public expectations has led to a PSAP that is far more complex than yesterday's centers. Technically sophisticated systems such as Computer Aided Dispatch and E-9-1-1 answering equipment have ended the days when an officer or records technician could fill in when extra help was needed in the PSAP. This trend will greatly accelerate within the next five years with the approach of Next Generation 911. While NG-911 will provide us with tremendous enhancements in the receipt and exchange of information, it will also require a very different PSAP with different skill sets and implications for technology management.

Ultimately, we believe the question before the decision makers for both counties is one of *value*. *How much service is being delivered at what price?* This is not always an easy question to answer when it comes to public safety services, but if services

could be precisely measured it would be fair to say that delivering the same or better services for the same or fewer taxpayer dollars translates to an improvement in value.

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Appendix A

Estimated Current & Consolidated Operational Costs

Operational Cost Comparisons						
	Burnett County	Washburn County	Current Combined	Consolidated	Difference	
Personnel						
Wages	\$ 268,931	\$ 284,303	\$ 553,234	\$ 486,889	\$ (66,345)	
Benefits	\$ 131,938	\$ 205,921	\$ 337,859	\$ 292,000	\$ (45,859)	
Overtime	\$ 13,492	\$ 20,000	\$ 33,492	\$ 20,512	\$ (12,980)	
Personnel Sub-Total	\$ 414,361	\$ 510,224	\$ 924,585	\$ 799,401	\$ (125,184)	
Technical Support						
E9-1-1 CPE	\$ 2,500	\$ 2,500	\$ 5,000	\$ 5,000	\$ -	
911 Wireless Circuits	\$ 7,800	\$ 10,800	\$ 18,600	\$ 13,950	\$ (4,650)	
Console Radio Support	\$ 6,000	\$ 6,000	\$ 12,000	\$ 9,000	\$ (3,000)	
CAD Support	\$ 6,400	\$ 12,000	\$ 18,400	\$ 15,000	\$ (3,400)	
Mobile/AVL Support	\$ -	\$ -	\$ -	\$ 15,000	\$ 15,000	
TIME System Access	\$ 9,900	\$ 9,900	\$ 19,800	\$ 12,360	\$ (7,440)	
Logging Support	\$ 839	\$ 1,000	\$ 1,839	\$ 1,000	\$ (839)	
Admin Phone Support	\$ 500	\$ 3,000	\$ 3,500	\$ 3,000	\$ (500)	
Mapping Support	\$ 8,967	\$ 2,750	\$ 11,717	\$ 4,200	\$ (7,517)	
Instant Recall Support	\$ -	\$ 1,000	\$ 1,000	\$ 1,000	\$ -	
Support Sub-Total	\$ 42,906	\$ 48,950	\$ 91,856	\$ 79,510	\$ (12,346)	
Other Expenses						
EMD/CPR Training	\$ 300	\$ 3,600	\$ 3,900	\$ 3,900	\$ -	
9-1-1 Call Interpreter		\$ 460	\$ 460	\$ 460	\$ -	
Headsets	\$ -	\$ 300	\$ 300	\$ 500	\$ 200	
Uniforms	\$ 4,420	\$ 2,800	\$ 7,220	\$ 3,600	\$ (3,620)	
Capital Items	\$ 41,000	\$ 10,000	\$ 51,000	\$ 20,000	\$ (31,000)	
Other Dept. Support	\$ 50,000	\$ 50,000	\$ 100,000	\$ 80,000	\$ (20,000)	
Other Sub Total	\$ 95,720	\$ 67,160	\$ 162,880	\$ 108,460	\$ (54,420)	
Total Recurring	\$ 552,987	\$ 626,334	\$ 1,179,321	\$ 987,371	\$ (191,950)	
					Difference (%) than without consolidation:	-19.44%
Personnel % of total	74.93%	81.46%	78.40%	80.96%		

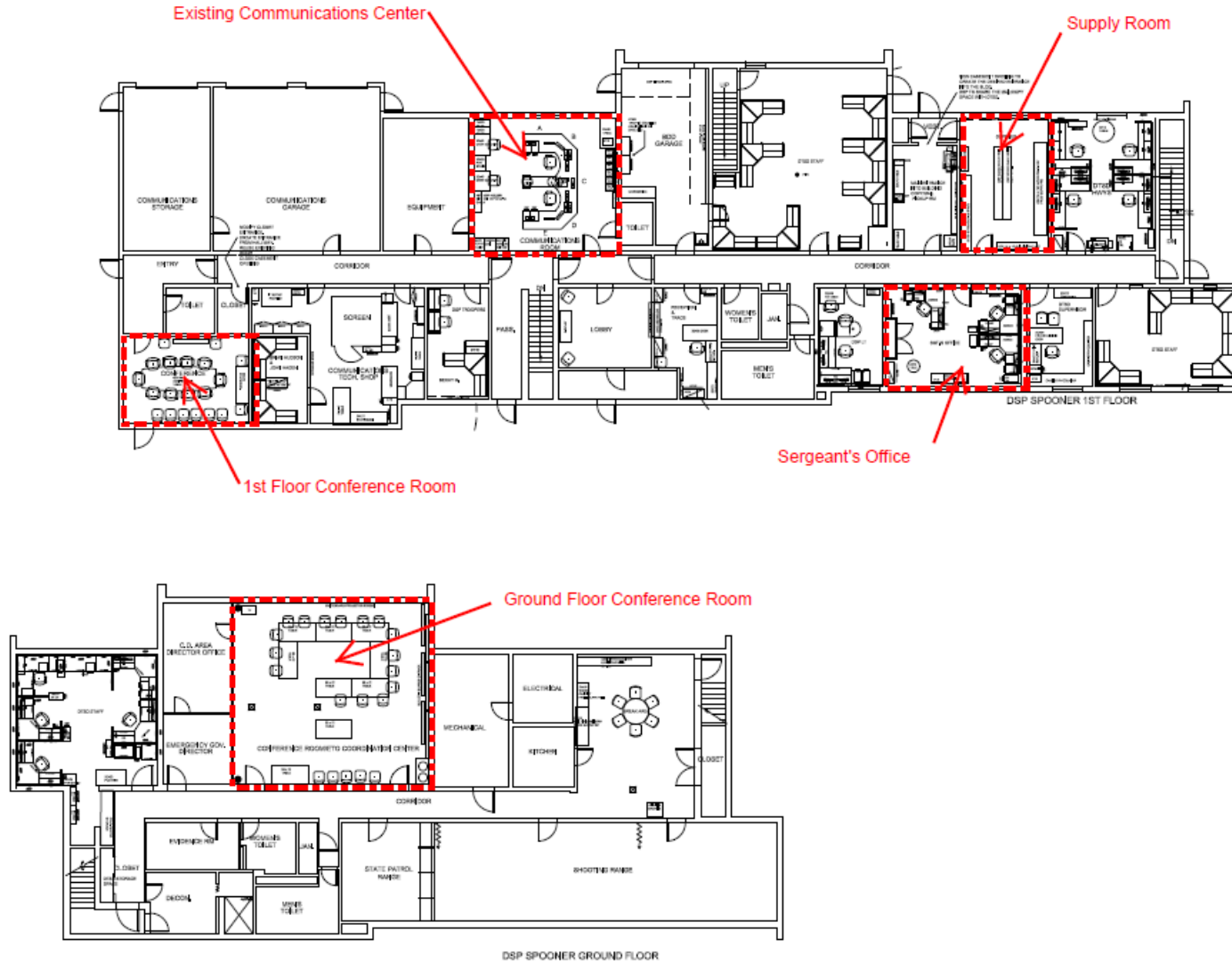
Other Dept Support if Consolidated: Legal (\$20,000) , H/R (\$15,000) , Fiscal (\$15,000), Tech Support (\$30,000)

Appendix B
Estimated 10 year PSAP CIP
Consolidated v. Two PSAP

Consolidated- 3 Position		Comparative 10 Year CIP - Consolidated v. Two County (with 3% annual pricing increase)								
Item	Current Pricing	Yrs 1-3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Totals
NG-911 CPE-3	\$ 100,000			\$ 347,782						
Radio Consoles - 3	\$ 40,000								\$ 171,091	
Logging Recorder-1	\$ 24,000		\$ 27,012							
Disp P.C.s/Monitors (2/yr)	\$ 1,000		\$ 2,251	\$ 2,319	\$ 2,388	\$ 2,460	\$ 2,688	\$ 2,768	\$ 2,852	
Admin PCs	\$ 1,000		\$ 1,000	\$ 1,000				\$ 1,000	\$ 1,000	
Printers (1/yr)	\$ 1,600		\$ 1,801	\$ 1,855	\$ 1,910	\$ 1,968	\$ 2,150	\$ 2,215	\$ 2,281	
	Total:		\$ 32,064	\$ 352,956	\$ 4,299	\$ 4,428	\$ 4,838	\$ 5,983	\$ 177,224	\$ 581,791
	Each County Share (50% split):		\$ 16,032	\$ 176,478	\$ 2,149	\$ 2,214	\$ 2,419	\$ 2,992	\$ 88,612	\$ 290,896
Current- 4 Position										
Item	Current Pricing		Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
NG-911 CPE-4	\$ 100,000			\$ 463,710						
Radio Consoles- 4	\$ 40,000								\$ 228,122	
Logging Recorder-2	\$ 12,000		\$ 27,012							
Disp P.C.s/Monitors (2/ yr)	\$ 1,000		\$ 2,251	\$ 2,319			\$ 2,688	\$ 2,768		
Printers (2/yr)	\$ 1,600		\$ 3,602	\$ 3,710			\$ 4,301	\$ 4,430		
	Total:		\$ 32,865	\$ 469,738			\$ 6,988	\$ 7,198	\$ 228,122	\$ 744,911
	Each County Share (50% split):		\$ 16,432	\$ 234,869			\$ 3,494	\$ 3,599	\$ 114,061	\$ 372,455
	Difference: Consolidated v. Current:		\$ (801)	\$ (116,782)	\$ 4,299	\$ 4,428	\$ (2,150)	\$ (1,215)	\$ (50,898)	\$ (163,120)
	% Difference Consolidated v. Current:		-2%	-33%	100%	100%	-44%	-20%	-29%	-28%

Appendix C

Wisconsin State Patrol Spooner Office Floor Plan



End Notes

ⁱ *Public Safety Answering Point Consolidation, a Guidebook for Consolidation Strategies*, Minnesota Department of Public Safety, December, 2009.

ⁱⁱ *Minimum Training Standards for Public Safety Telecommunicators*, APCO-ANS 3.103.1-2010, September, 2010.

ⁱⁱⁱ APCO Project RETAINS; *Staffing and Retention in Public Safety Communications Centers: A follow-up study*. January, 2009.