



City of Waukesha, Wisconsin
Public Safety Dispatch Study
August 17, 2016

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Executive Summary

In 2015, the City selected DELTAWRX to conduct an independent review of the feasibility of transitioning dispatch services from the City of Waukesha Communications Center (CWCC) to the Waukesha County Communications (WCC) Center. The ultimate goal of the study was to answer the following critical questions:

- 1) Would a transition to the WCC result in an improved level of service?
- 2) Would a transition to the WCC result in cost savings?

After reviewing extensive documentation provided by both the City and County, interviewing personnel from each PSAP and multiple stakeholders in the community, as well as conducting a staffing and financial analysis, our recommendation is for the City of Waukesha to maintain the CWCC and not transition dispatching services to the WCC.

While we believe the WCC has the necessary infrastructure, provides a high level of service to its partner agencies, and would provide cost savings for the City, the additional staffing required to meet both WCC and CWCC level of service demands is significant and presents a risk to involved parties. Combined with the reduction in influence, ownership and governance of the dispatch center, we do not believe a transition of services is practical or in the best interest of the City at this time.

Project Background and Objectives

Serving over 70,000 residents, the Waukesha Police Department has operated a dispatch center since the mid-1930s. In the late 1960s, the Department hired its first civilian dispatchers and the center has functioned as a full 911 Public Safety Answering Point (PSAP) since 1987. Today, the City of Waukesha Communication Center (CWCC) provides dispatch services for the City's Police and Fire/EMS Departments and handles approximately 75,000 calls for service annually. The CWCC uses a ProPhoenix Computer Aided Dispatch (CAD)/Mobile system. Of the seven (7) PSAPs in the County, the CWCC is the second largest.

The Waukesha County Communications (WCC) Center opened its doors in 2004 and is now the largest PSAP in the County. WCC uses an Intergraph CAD/Mobile system and provides Law Enforcement and Fire/EMS dispatching services for over 23 different municipalities.

In 2012, the Waukesha Police Department Command Staff studied the feasibility of transferring emergency call-taking and dispatch services to WCC. The study sought to determine the impact the services transfer would have on the quality and cost of communications services. The study concluded that the risk of decreased service levels outweighed any potential long-term cost savings. In 2015, the City released a request for proposals (RFP) that sought an independent review of the feasibility of combining dispatch operations with WCC.

Through a competitive procurement process, the City selected DELTAWRX to conduct this study to determine if it would be prudent to become a partner agency of the WCC and, in turn, no longer provide dispatching and emergency call-taking services via the CWCC. As part of this study, DELTAWRX worked with the City to perform the following:

- Benchmark the current communication environment
- Determine the technological feasibility of transitioning dispatching services from CWCC to WCC
- Project the additional call volume and WCC workload associated with a potential transition, as well as the staffing levels necessary to meet those requirements
- Project one-time transition costs and recurring technology, human resources, support and other costs and compare such costs to the status quo

Ultimately, the goal of this study is to answer the following critical questions:

- 1) Would a transition to the WCC result in an improved level of service?
- 2) Would a transition to the WCC result in cost savings?

Project Methodology

To accomplish the goals of this study, DELTAWRX conducted interviews with end users and management at both the CWCC and WCC, as well as with leadership from current subscriber agencies of WCC, aldermen of the City, and agencies served by the CWCC. In addition to stakeholder interviews, DELTAWRX reviewed previous studies, available statistics, and other documentation related to this project (e.g., job descriptions, policies and procedures, etc.). Over the course of the analysis, data and assumptions were validated with subject matter experts to ensure accuracy. When applicable, DELTAWRX incorporated industry best practices to project required resources and other statistical data.

Comparison of Current Centers

The following is a brief overview of the City of Waukesha Communications Center (CWCC) as compared to the Waukesha Communications Center (WCC). This overview highlights the key similarities and differences between the two centers in the following areas:

- Operational Overview
- Ownership Structure and Governance
- Statistical Comparison
- Services Provided
- Training Program

Operational Overview

The CWCC is located at the City of Waukesha Police Department and serves as the primary answering point for wireline 9-1-1 calls in the City. The center has four dispatch positions though is typically staffed with three on-duty personnel. Dispatch positions are grouped closely together which allows information to be freely shared among the group without relying on electronic communication. The three positions are: call-taker, police dispatcher, and fire dispatcher. It is common for personnel to work relatively interchangeably and assist with each other's duties. When necessary, a fourth dispatcher is assigned to assist with the workload. All telecommunicators are cross-trained and rotate through each position on a periodic basis. In addition to the telecommunicators, there is a full-time supervisor, who works 40 hours per week, that assists with the management of the center and provides telecommunications support when necessary.

The CWCC operates in a hybrid single/two-stage dispatching environment. Typically, communications centers operate in either a single or two-stage dispatching environment. In a single stage environment, the call-taker also serves as the dispatcher. The operator will both input the call and dispatch the appropriate resources. In a two-stage environment, the call-taker is responsible for answering the phones and entering the call for service (CFS) information into the CAD system. In the City's hybrid approach, dispatchers are assigned to either a call-taker or dispatcher position; however, it is common for call-takers to dispatch resources and for dispatchers to answer calls. This is typically determined by the current level of workload (e.g., if the call-taker is occupied on another call, another dispatcher on duty will answer the phone should it ring). The Waukesha Police Department considers the proximity of operators and hybrid dispatching approach to be highly advantageous as it allows information to be easily and quickly transferred among dispatchers as well as provide a direct avenue for pre-emption, in which a call is broadcast immediately via the radio.

The WCC is located at a free-standing facility in the City of Waukesha. In addition to providing wireline 9-1-1 call answering services to the communities they serve, the WCC also answers all wireless 9-1-1 calls in the County. The Center has 24 total workstations and is planning an expansion in the near future.

At the WCC, dispatch positions are grouped in pods. Within each pod are multiple workstations (typically four) that often function as a mix of call-taking and dispatch positions. Currently there are four dedicated dispatchers for law enforcement and one dispatch position dedicated to Fire/EMS. The WCC operates in a two-stage dispatch environment: call-takers are responsible for call-taking while dispatchers are responsible for dispatching. At multi-agency, multi-jurisdiction consolidated PSAPs, this operational structure is the norm. The benefit of this structure is that employees can dedicate their focus to their job function as opposed to managing two different sets of “customers” (i.e., call-takers being focused on the callers while dispatchers are focused on managing the units in the field). Further, with the separation of duties, dispatchers can be assigned management of specific units/agencies as opposed to being required to potentially dispatch any units/agency. During high levels of workload and critical events, however, personnel are able to assist with one another’s duties. In peak periods, if all call-takers are occupied, dispatchers will provide call-taking assistance. When critical events occur, call-takers will either enter and transfer the call to the dispatcher prior to ending the call (e.g., send the call location and incident type to the appropriate dispatcher in CAD) or will perform radio pre-emption and immediately broadcast the call information via the radio. These policies allow for information to be transferred at an expedited rate. Similar to the CWCC, all employees are cross-trained and rotate through call-taker and dispatcher positions.

In addition to call-takers and dispatchers, the WCC also staffs a supervisor position 24/7. Unlike the CWCC, supervisors do not “work-the-floor”; rather, their focus is to provide supervision and manage other aspects of the center (e.g., quality assurance, training reviews, etc.). Additionally, the WCC employs IT support staff, an administrative assistant, and has a Director and Operations and Training Manager to assist with the management of the center. The Director, formally known as the Director of Emergency Preparedness, is responsible for the entirety of the PSAP and dispatch system, the radio service operation and emergency management functions. The Operations and Training Manager is responsible for the general functions of the WCC (e.g., evaluating complaints,

assisting in management of budget, reviewing and developing policies) and serving as the training coordinator.

The WCC is the primary backup facility for Milwaukee County and the CWCC. Milwaukee County serves as the backup facility for the WCC.

Each center has the ability to deploy telecommunicators in a mobile environment. During major incidents, telecommunicators at each center can report to a mobile command post to provide assistance to an incident commander.

Ownership Structure and Governance

The CWCC is staffed and managed by the Waukesha Police Department. The Department is responsible for the management of personnel, including the hiring and training of employees. The supervisor of the CWCC reports to the Support Services Captain. In addition to providing dispatching services for the Police Department, the CWCC also serves the Waukesha Fire Department. The Fire Department has no formal ownership or governing position in the dispatch center.

The WCC is staffed and managed by the County, with the Director reporting to the County Executive. To assist in governance of the center, the WCC has multiple committees that incorporate feedback from subscriber agencies. The Protocols Group and Dispatch Operations Commission (DOC) provide input on policies and procedures of the WCC. The Protocols Group is open to representatives from all WCC subscriber agencies while representation on the DOC is based on appointment. The final decision-making authority, however, rests with the County as these are only advisory committees. When agencies join the WCC, they enter into a Joint Powers Agreement (JPA) with the County. The WCC also provides each agency with the “Approved List of WCC Services and Agencies Served” which outlines the services to be provided and subscribers of the WCC.

Statistical Comparison

Table 1 summarizes key metrics comparing the two communication centers.

Table 1. CWCC/WCC Statistical Comparison

Metric	CWCC	WCC
Population Served	71,044	144,313

Metric	CWCC	WCC
Agencies Served	2	36
CAD Events (2015)	74,473	286,106
Call-Taker, Dispatcher, Supervisor FTEs	16	54 ¹

The potential addition of the City of Waukesha workload, in regard to population served and CAD events, is a significant proportion when compared to WCC. Additionally, the CWCC's call-taker, dispatcher, and supervisor FTE count is nearly one-third to that of the WCC. As shown later in this report, the absorption of the City's workload would require a significant investment in WCC resources.

Services Provided

The CWCC and WCC differ in the amount and type of services they provide to their customers. The CWCC serves the Waukesha Police Department and Waukesha Fire Department as its primary customers. In addition to providing emergency call-taking, dispatching, and field personnel support services, CWCC telecommunicators also provide assistance in monitoring Police headquarters (e.g., jail monitoring, sally port management, weekend front door control), handling calls from the public, and monitoring the OptiCop system throughout the community, amongst other duties. Telecommunicators at the CWCC are an extension of field personnel and are often relied upon to provide proactive support, which is highly encouraged by Police Department leadership.

The WCC serves a multitude of agencies with its primary focus being on emergency call-taking and the dispatching of resources. Telecommunicators provide assistance to field units via research (e.g., queries into RMS and third party systems), unit and incident monitoring, and messaging as well as providing alerts related to the weather. Table 2 provides a high level comparison of services between the CWCC and the WCC.

Table 2. Comparison of Services

Service	CWCC	WCC
Emergency Call-Taking	Yes	Yes
Dispatching: Police, Fire and EMS	Yes	Yes
MDC Messaging	Yes	Yes
Emergency Notifications	Yes	Yes
Alarm Monitoring	Yes	Yes

¹ As of August 17, 2016, there are 47.9 FTE positions, of which there are 40.9 telecommunicator FTEs and 7 supervisors. The WCC has made conditional offers to 6 individuals, who are expected to start in mid-September of this year.

Service	CWCC	WCC
TIME Teletype: Entry	Yes	Yes
TIME Teletype: Validation	Yes	Limited
Warrant Entry (Missing Persons, Vehicles, Guns, Articles)	Yes	Limited
Siren Activation	Yes	Yes
RMS Lookup	Yes	Yes
NCIC Lookups	Yes	Yes
Radio Traffic Monitoring	Yes	Yes
Outgoing Calls and Third Party Communication (e.g., contact tow companies)	Yes	Yes
EMD	Yes	Yes
First Responder Paging	Yes	Yes
After Hours Calls from Other City Departments	Yes	No
Public Information Calls (Court-related, special event questions)	Yes	No
RMS System Administration	Yes	No
Security Camera Monitoring	Yes	No
Jail Monitoring	Yes	No
Activation of Agency Doors	Yes	No
Public Works Radio Monitoring	Yes	No
Monitor Field Personnel	Yes	Yes
Fleet Watch Monitoring	Yes	No
Background Investigations	Yes	No
Manage Overnight Parking System	Yes	No
Self-Initiate Support Functions	Yes	No
Monitor Panic Buttons for Waukesha City Hall	Yes	No
After-hours Emergency Assist for Parking Ramp	Yes	No

In summary, the primary focus of WCC is on emergency call-taking and dispatching whereas CWCC telecommunicators are embedded in the City's daily operations beyond emergency call-taking and dispatching.

Training Program

In comparing training programs at each center, the WCC and CWCC follow different approaches. The CWCC heavily leverages on-the-job (OTJ) training for new recruits. Under the direction of a Communication Training Officer (CTO), new recruits undergo a fifteen-week training period in which they spend five weeks dedicated to each of the telecommunicator positions (call-taker, police dispatcher, and fire/EMS dispatcher). Progress is monitored via Daily Observation Reports (DOR) and feedback is provided from shift supervisors to help improve performance. Additionally, staff

undergo necessary training for the TIME system as well as appropriate medical training (i.e., EMD and CPR). Over the course of their careers, telecommunicators are required to maintain their certifications for these skills, which is typically a re-certification process every two years.

At the WCC, the initial training program includes a seven-week classroom training period. Over this period, students are tested weekly with a final examination at the course's conclusion. Following the classroom review period, students are then placed in OTJ training roles where they learn each of the telecommunicator positions. Students' progress is monitored via Daily Observation Reports (DORs), continual meetings with shift supervisors to review progress to-date, and accomplishments and position sign-offs are documented on each recruit's "Task List" which becomes stored in the individual's training binder. Over the course of the training program, students must attend classes to receive appropriate certification in the TIME system and medical training. On average, a recruit's training period is typically seven months, but often varies dependent on a recruit's capabilities. Similar to the CWCC policy, dispatchers are required to maintain their certifications (i.e., EMD, CPR, TIME access) over the course of their employment.

Summary

Though both agencies provide call-taking and dispatching services, the scope of services and number of agencies served differ significantly. The primary mission of the WCC is to provide call-taking and dispatching services to each of their partner agencies. Those partner agencies provide feedback to WCC management to help assist with major policy and operational decisions. By virtue of location and the number of agencies served, the face-to-face communication between WCC telecommunicators and field personnel is comparatively limited. However, it should be noted that WCC makes an active effort to build relationships between WCC and those agencies (e.g., ride/sit-alongs, invitations to visit center, etc.). The WCC is a well-organized professional dispatching organization with a clear mission statement, performance objectives, in-depth training plan, and an organizational structure that facilitates continual improvement and upholds high standards.

The CWCC is also a professional organization that has provided a high level of service to both the Waukesha Police Department and Waukesha Fire Department. Leadership at both agencies have expressed a high level of satisfaction with the performance of CWCC personnel. The duties of CWCC telecommunicators are tailored to the needs of the City, and in particular, the Police Department. CWCC telecommunicators are embedded within the Police Department's

organizational structure and are considered integral contributors to the Department's overall public safety mission. They attend roll call regularly and are often kept up-to-date on other matters on an informal basis (e.g., police officers are known to step into the dispatch center and verbally address the CWCC). Additionally, CWCC telecommunicators provide numerous services to both the Police Department and the community at large by performing duties that are often overlooked (e.g., non-emergency call-taking support, security video monitoring, etc.). The law enforcement focus of the CWCC is typical for single jurisdiction PSAPs, particularly when they are part of the law enforcement organization. The vast majority of incidents pertain to the Waukesha Police Department (a ratio of approximately 10:1) as well as the duties outside of emergency call-taking and dispatching. For example, management of the facility, monitoring of security cameras, and validating and entering information into the TIME system all pertain specifically to the Waukesha Police Department.

The structure of the CWCC is much less formal than that of the WCC as there is less supervision and support personnel, as well as less of a focus on formal performance metrics and strategic planning specific to the center. Being that the CWCC is part of the Waukesha Police Department (as opposed to an independent entity), this is not atypical. With regard to on-duty supervision, there are fewer individuals to supervise allowing the senior level dispatcher to fill an informal supervisor role. The CWCC's role is to provide support to the overall mission of the Waukesha Police Department.

Level of Service

The City seeks to identify whether joining the WCC would result in heightened levels of service to the public safety community and residents of the City of Waukesha. Level of Service, as compared to financial and statistical metrics, can be difficult to quantify. In order to address this issue, DELTAWRX sought to answer the following questions:

- What services are currently being provided by the CWCC as compared to the WCC and, in the event of a services transfer, how would those services be accomplished?
- Are there technical or physical limitations preventing a transfer of services?
- What would be the impact on center governance and culture should the City join the WCC?
- How do agencies compare against appropriate dispatching benchmarks and general customer satisfaction?
- What are other potential benefits and disadvantage of moving to the WCC?

Within each of the following subsections, we have provided an overview of the issue at each center and our conclusion in relation to each question posed.

Comparison of Services

Overview

As shown in Table 2, the services provided by the WCC and the CWCC differ significantly. While both provide emergency call-taking and dispatching and related services, there are several services currently provided by the CWCC that are not provided by the WCC. Of particular note are the monitoring services of the CWCC as well as the additional City and community services.

Specific to the monitoring services, CWCC telecommunicators play a vital role in providing an additional safety layer to officers while at Police Department headquarters. CWCC telecommunicators monitor each of the available camera feeds in the facility (e.g., booking, front lobby, etc.) and also monitor access to and from the facility after-hours and on weekends. Additionally, telecommunicators proactively monitor the OptiCop system throughout the City

which, in effect, provides another “set of eyes” in patrolling the community². Further, telecommunicators provide a service to other departmental units (e.g., Public Works monitoring) and also serve as the City’s de facto 3-1-1 center after-hours and on weekends. If the City were to join the CWCC, these duties would need to be performed by City of Waukesha resources.

The recommendation of Waukesha Police Department leadership is that one full-time 24/7 position (six FTEs), with appropriate supervision (one supervisor), would be required to maintain current service levels. The Police Department maintains that City stakeholders are accustomed to those services being provided by local personnel intimately familiar with local policies, operations, geography and priorities. Incidentally, they believe that in a scenario where those services were no longer provided, it would likely result in a reduction in the level of service. In addition to providing the lost services, this position would continue to provide assistance with the TIME system, in both entering and validating system entries, and could potentially play an additional role in validating data in the records management system (see Technical and Physical Limitations).

It should be noted that we did not evaluate the Waukesha Police Department’s entire organizational structure to determine if these duties could be transferred to existing positions. As a number of these duties are non-quantifiable, related directly to officer and community safety, and occur on a 24/7 basis, we relied on the expertise of the Waukesha Police Department to determine what level of staffing would be appropriate. Within the Financial Analysis section of this report, we have isolated the projected costs of retaining these personnel.

Conclusion

Joining the WCC likely will result in a reduction of dispatcher provided services. In order to account for those lost services, the Waukesha Police Department’s recommendation is for a new position to be created. In essence, the City would move from three dispatchers on duty 24/7 with a full-time supervisor, to one employee on duty 24/7 with a full-time supervisor.

As an alternative, the City could explore the feasibility of transferring these new duties to an existing position or reducing the expectation on the level of service. However, these concepts run counter

² The WCC is planning to adopt a policy that would allow for remote camera access from the WCC. However, the draft policy is more specific to viewing major incidents in progress whereas CWCC policy is a more proactive approach. Additionally, whereas the CWCC has multiple dispatchers viewing the feed, the OptiCop feed at the WCC would likely have fewer viewers.

to the City's primary goals of retaining the same level of service without expanding the responsibilities of existing Department personnel, and are in conflict with the viewpoints of Waukesha Police Department leadership. As a point of comparison, Appendix 1 presents an analysis that shows the financial impact of an alternative operational environment. Please note that we are not recommending this alternative, but rather forecasting the potential impact.

Technical and Physical Limitations

Overview

Should the City transfer dispatch services to the WCC, it is critical for the WCC facility to have adequate space and for critical systems to be comparable with the existing infrastructure at the WCC.

The WCC currently has 24 total workstations in the facility, only approximately half of which are used on a daily basis. The WCC has ample workstation capacity for the addition of the estimated three positions. The WCC previously served as a host for the CWCC when their facility was undergoing a renovation. During this time period, the CWCC was co-located at the WCC and the facility was able to host the additional positions without any disruption to its physical workspace. Lastly, the WCC is planning an expansion of the existing facility in the near future, which will further increase capacity and workstation positions. For these reasons, there are no known physical limitations preventing the City from joining WCC.

Radio infrastructure, E9-1-1, CAD/Mobile, OptiCop, ProPhoenix Records Management System (RMS), and ESO Fire RMS systems are critically impacted technologies that must be assessed when evaluating the potential impact of transferred dispatch services. With regard to radio infrastructure, all agencies within Waukesha County operate on a shared 800 MHz trunked radio system; as such, there are no radio technology changes required.

Service transfer yields potential cost savings with regard to 9-1-1 equipment. The City of Waukesha's E9-1-1 system is ending useful life and is scheduled for replacement in the next 6 – 18 months; should the City join WCC, the purchase of this equipment would no longer be required as the WCC's E9-1-1 system would be utilized.

Should the City move to the WCC, however, a change in Mobile technology would be expected as Computer Aided Dispatch (CAD) systems are designed to work with Mobile counterparts from the

same vendor³. The City would be required to purchase the required Mobile licenses and dedicate resources to undergo the required training. An estimated two to four hours of training per end-user would be required for new Mobile users. Access to the CAD system would be available to the City via Intergraph's iNetViewer application, a web-based application that allows users to view and enter calls from a remote location (with appropriate security permissions).

Specific to the ESO and ProPhoenix RMS applications, each agency would require an interface to their existing application. Each of these interfaces is currently in use by a portion of WCC subscriber agencies and has been developed, tested and fully implemented.

Lastly, the OptiCop system is an IP-based system that provides access to approved users via a web-browser. Access to the OptiCop system from the WCC would not be limited; however, resources would need to be provided to ensure existing levels of system monitoring are retained. Additionally, the policy of monitoring the OptiCop system would be determined by the County after review by the Protocols Group.

Conclusion

The WCC currently has sufficient physical space to absorb additional positions and there are no technical limitations that would prevent the City from joining the WCC. Agencies within the County currently operate on the same trunked radio system; access to the OptiCop system from the WCC is possible and the City would be able to leverage the WCC's existing E9-1-1 infrastructure and not require local investment.

The required interfaces between CAD and participating WCC agency RMS applications have been developed and are currently operational, allowing call for service information to be transferred from CAD to the appropriate RMS. However, as the CAD system and the ProPhoenix RMS application utilize different geofiles, the location information from the CAD must be re-verified within the ProPhoenix RMS before it can be accepted (failure to do so can contaminate the database with inconsistent information). This condition would necessitate the altering of business practices and likely require additional work to be completed by City of Waukesha personnel. Other subscriber agencies have noted that in order to get an encompassing view of activity within their region, they

³ While an interface from the Intergraph CAD to the ProPhoenix Mobile may be possible; industry best practice dictates the use of an integrated CAD and Mobile product from a single vendor.

must query their local RMS as well as the Intergraph CAD system. It should be noted that all agencies utilize a non-Intergraph RMS and have effectively managed this issue. Lastly, a move to the Intergraph Mobile system would require personnel to be trained on the application.

Center Governance and Organizational Culture

Overview

Today the CWCC is operated by the Police Department. The Police Department manages the technology used within the center and maintains authority over personnel and specific law enforcement policy decisions. Policy related to the dispatch of Fire resources is determined by the Waukesha Fire Department. Provided appropriate and approved funding, the Police Department can change and implement new technologies within the CWCC and correspondingly change policies and procedures as needed. Though the Fire Department is dispatched by the CWCC, leadership from Waukesha Fire believes they have had limited input into the direction of the CWCC as there is no formalized agreement between the CWCC and the Waukesha Fire Department. The CWCC does not facilitate standing meetings or provide regular reports to the Waukesha Fire Department.

While the Fire Department considers itself to be a “customer” of the CWCC, the Police Department considers the Fire Department a “valued partner” and cites examples of having created avenues for Fire Department leadership to provide input, including invitations to participate in the Quality Assurance (QA) program, reviews/creation of fire-related dispatching policy, and a position on the hiring panel for new personnel.

The CWCC is intertwined with the daily operations of the Waukesha Police Department. In the opinion of the Chief of the Waukesha Police Department, transferring dispatch services to the WCC “would be akin to cutting off a leg” and “creates a safety risk for his officers.” As discussed previously, the duties of CWCC telecommunicators go far beyond call-taking and dispatching. Telecommunicators function as proactive members of the Police Department, providing an additional safety layer and investigative tool for field personnel.

The WCC is a County-run operation that is managed by the Director of Emergency Preparedness who reports to the County Executive. Ultimate decision-making authority rests with the County. In addition, the WCC utilizes its subscriber agencies to obtain feedback and provide subject matter

expertise through the Protocols Group and the Dispatch Operations Commission (DOC). These groups operate as follows:

- Protocols Groups: The Protocols Groups are two groups comprised of high level officers from both law enforcement and fire/EMS agencies. The purpose of the Protocols Group is to provide operational feedback and recommendations from a field perspective. During these meetings, WCC staff will provide updates on a variety of WCC issues, including personnel, major project updates, and policies and procedures, amongst other topics. Participation in the Protocols Group is open to any participating agency. Recommendations made from the Protocols Group are filtered to the DOC.
- Dispatch Operations Commission (DOC): The DOC is comprised of six voting members – one County Supervisor, two participating Police Chiefs and two Fire Chiefs as appointed by their Chief's Association, and one Waukesha County Sheriff or designee. In addition to these voting members, chairs of the Protocols Groups and members of the WCC staff also participate in non-voting positions. The DOC discusses major issues related to the WCC as well other relevant policy and procedural issues brought through the Protocols Group. Though the County has consistently approved the recommendations brought forward by the DOC, final decision-making authority is that of the County as the DOC is only an advisory council.

The WCC is an independent entity that provides services to multiple agencies and jurisdictions. While its organizational nature allows for a greater countywide situational awareness, the WCC is not as embedded within each individual department's jurisdiction as the locally managed CWCC is for the Waukesha Police Department. The WCC operates as a service provider to its partner agencies as opposed to serving as a bureau or division within each agency.

Conclusion

Though the WCC has established groups to provide input, feedback and generally assist in the management of its center, the City of Waukesha's influence on the governing body would be significantly reduced from its status quo by contracting with the WCC and the City would relinquish its autonomous control over dispatch operations. The City would have the opportunity to participate in the Protocols Group, but would not be guaranteed a standing position in the DOC. Regardless, the DOC is still an advisory group (as opposed to a decision-making authority) and, as

such, would be beholden to decisions ultimately made by the County. Based on discussions with representatives of WCC subscriber agencies, more often than not, the County adopts recommendations made by the DOC; however, the County has unilaterally made operations decisions previously if thought to be of high priority (i.e., the decision to implement Emergency Fire Dispatching [EFD] protocols).

Additionally, during discussions with DELTAWRX, representatives of subscriber agencies consistently brought up the need for agencies served by the WCC to be willing participants in the WCC. This included a willingness to compromise, standardize, and conform to a set of practices that have been developed at the WCC for the mutual benefit of WCC operations and the agencies it serves. This does not suggest that all dispatch protocols must be standardized. For example, the Waukesha Police and Fire Departments could still have unique response plans. It should be assumed, however, that some procedures within the dispatch center will have to be modified in order for the WCC to run as effectively as possible. Examples of potential standardization include the use of common radio terminology, call types, and the WCC policy of not prioritizing incidents. In the current environment, the CWCC can tailor its policies directly to the needs of the Waukesha Police and Fire Departments without factoring the impact on other external stakeholders.

Specific to culture, the transfer of services to WCC would have a significant impact on the Waukesha Police Department. Though the WCC has advisory groups and a policy that allows for agencies to visit the center, the relationship between the Waukesha Police Department and dispatch would be significantly altered due to the change in organizational structure and altered business practices. For the Waukesha Fire Department, the cultural impact would be far less as it does not manage or largely influence the center today.

In conclusion, migrating to the WCC would reduce the level of decision-making, ownership, and autonomous control for the City. While other agencies have successfully made this transition, they have succeeded in part by accepting the need to operate in an environment with other agencies and make compromises for the collective good. For a transition of services to work for the City of Waukesha, the Police and Fire Departments would need to be willing to work with smaller agencies in a collective environment and be willing to cede decision-making authority to another body. The dilution of authority is significant and represents a major change for both the City and the Waukesha

Police Department. While the City would likely have the largest call volume and corresponding CFS, its level of control and input would not be commensurate.

Benchmarks, Third Party Certification and Customer Satisfaction

Overview

The primary benchmarks utilized in evaluating level of service at communications centers are NFPA 1221 call-answering standards and processing times, which are shown below:

- NFPA Call-Answering Standards: 95% of calls to be answered within 15 seconds, and 99% of calls to be answered within 40 seconds.
- NFPA Call-Processing Standards: 90% of fire calls processed within 60 seconds, and 95% of fire calls process within 100 seconds; 90% of medical calls processed within 90 seconds, and 99% of calls processed within 120 seconds.

With regard to call-answering times, data was not available for the CWCC. The WCC has historically hit this benchmark over the past five years, though service has dipped slightly over the same time period, as shown below:

Table 3. NFPA Benchmarks – WCC

Standard	2011	2012	2013	2014	2015
911 Answered < 15 Seconds	97.65%	96.83%	95.80%	94.90%	94.01%
911 Answered < 40 Seconds	Unavailable	Unavailable	Unavailable	99.74%	99.17%

With regard to call-processing times, data was available for Waukesha Fire, Pewaukee Fire, as well as a limited set of data from Brookfield Fire. The call data analyzed for Waukesha Fire and Pewaukee Fire was for calendar year 2015. For Brookfield Fire, data was available only for January 2016.

Table 4. NFPA Benchmarks – Fire Call Processing Comparison

Standard	Waukesha Fire (2015)	Brookfield Fire (January 2016)	Pewaukee Fire (2015)
Processed < 60 Seconds	32%	38%	41%
Processed < 90 Seconds	59%	56%	70%

Table 5. NFPA Benchmarks – Medical Call Processing Comparison

Standard	Waukesha Fire (2015)	Brookfield Fire (January 2016)	Pewaukee Fire (2015)
Processed < 90 Seconds	41%	40%	36%

Standard	Waukesha Fire (2015)	Brookfield Fire (January 2016)	Pewaukee Fire (2015)
Processed < 120 Seconds	61%	63%	66%

As the limited data shows, performance is comparable, though neither center hits the NFPA benchmark. It should be noted that in DELTAWRX's experience, few agencies achieve this NFPA benchmark. Call-processing involves two parties – the telecommunicator and the caller. While telecommunicators are trained to ask the appropriate questions, they are often dealing with callers who may not be calm and efficient in providing accurate or requested information in a timely manner. The NFPA does not publish performance data regarding communications centers ability to meet NFPA benchmarks. Additionally, the processing times for Waukesha Fire do not include the 15 – 45 second delay for all wireless calls that are received by WCC and subsequently transferred to the CWCC.

The following third parties provide certification in various forms related to communication centers:

- Association of Public Safety Communication Officials (APCO)
- Commission on Accreditation for Law Enforcement Agencies (CALEA)
- International Academies of Emergency Dispatch (IAED)
- Insurance Service Office (ISO)
- Wisconsin Law Enforcement Accreditation Group (WILEAG)

The WCC is currently undergoing the accreditation process for APCO's Project 33 certification, which will provide independent review and approval that the WCC's training program meets APCO national standards. With regard to the ISO review, the WCC has participated in two subscriber agencies insurance review processes (Brookfield and Pewaukee). Out of a possible 10 points, the WCC scored 9.36 and 9.22. Additionally, a number of WCC subscriber agencies have received accreditation through WILEAG with the WCC serving as their dispatch center. As part of the WCC's strategic plan, it is also committed to pursuing future accreditation through CALEA and IAED's Emergency Medical Dispatching Accredited Center of Excellence (ACE) program.

The Waukesha Police Department is also an accredited agency via WILEAG. Specific to the dispatch center, there are no third party certifications being sought at this time.

Lastly, both centers have a Quality Assurance (QA) program related to the evaluation of Emergency Medical Dispatching (EMD). Each center reviews approximately 100 medical calls per month and

seeks to meet the IAED target score in each category. In addition to reviewing medical calls, the WCC also aims to review 50 – 100 law enforcement and fire-related calls. The most recent EMD scores provided by the CWCC (end date March 2016, start date unknown) and the 2015 WCC scores are displayed in Table 6.

Table 6. EMD Quality Assurance Scores

	Case Entry	Chief Compliance	Key Questions	Pre-Arrival Instructions	Post-Dispatch Instructions	Final Coding	Customer Service	Average
CWCC - Average	94.2%	98.6%	93.7%	72.3%	94.9%	95.8%	99.8%	95.2%
WCC - Average	95.2%	95.7%	98.3%	91.6%	97.6%	98.5%	98.9%	96.9%
IAED - Goal	95%	95%	90%	95%	90%	90%	95%	90%

In addition to reviewing the available quantitative data, DELTAWRX also conducted interviews with “customers” of both the CWCC and WCC. For the CWCC, we interviewed members of the Waukesha Police and Fire Departments as well as members of outside agencies and a longtime City resident. For the WCC, we interviewed representatives from WCC subscriber agencies.

Stakeholders of both dispatch centers expressed a general level of satisfaction with the performance of their respective dispatch center. Specific to the CWCC, interviewed personnel consistently praised the professionalism and overall quality of the dispatch center and specifically noted the correlation between localized knowledge and service to officers and Waukesha residents. Expressed concerns about the CWCC included the secondary focus of fire operations. During periods of heavy workload, the fire dispatch position is expected to assist in call-taking duties, which can potentially detract from primary fire dispatch duties. This assistance is reciprocal as the call-taker and Police Dispatcher will assist the Fire Dispatcher during their busy periods. In addition, significant concerns exist over delays in fire and EMS response time due to required wireless 9-1-1 transfers from the WCC to the CWCC. The transfer creates a significant time delay that prevents first responders from responding as quickly as possible.

Represented WCC stakeholders also expressed a high level of satisfaction with regards to the delivery services. In the event that the City transferred its dispatch services to the WCC, interviewees recognized that transitional pains would likely be encountered; however, none were viewed as insurmountable. For example, WCC agencies previously accustomed to dictating their own policies and procedures were required to learn how to compromise and to some extent

standardize with other agencies. With regard to the dispatcher service delivery, stakeholders expressed a high level of satisfaction, noting that they were professional and courteous in the service they provided. Additionally, they praised the proactive approach of management in ensuring quality control.

Conclusion

In the absence of agency data or relevant data benchmarks drawing significant conclusions is difficult. In reviewing the performance of the WCC in regard to call-answering, the WCC meets the benchmark; how it compares to the CWCC is unknown. With regard to call-processing times, despite a limited sample size, performance by the centers is comparable. The EMD QA scores for the CWCC and the WCC are similar, though the WCC generally outperforms the CWCC. Out of the eight categories, the CWCC exceeds the IAED target score in six categories while the WCC exceeds the target score in seven categories.

With regard to third party accreditation, the WCC is pursuing independent, third party certification from multiple organizations focused on telecommunications. Its participation in other evaluations for subscriber communities has netted positive results. The Waukesha Police Department is certified by WILEAG but does not plan to pursue other third party accreditation in the immediate future. Though accreditation has yet to be received at the WCC, the strategic plan and pursuit of the certification is a positive development and should provide confidence to subscriber agencies that the WCC will provide a high level of service.

Other Benefits and Disadvantages

Mutual Aid and Borderless Dispatching

By utilizing the same communications center, the viability and ease of mutual aid would be greatly enhanced. In short, by sharing the same CAD system and being dispatched by the same operators, agencies would have access to the same information and have greater situational awareness of the locations of other units and incidents in the County. Further, a transition of services would provide an avenue for Fire/EMS agencies within the County to move to “borderless dispatching”, which would leverage AVL in making unit recommendations regardless of agency jurisdiction.

Local Knowledge

The loss of local knowledge is a common concern expressed by agencies when considering dispatch consolidation. As noted during multiple interviews, there is a strong feeling that CWCC dispatchers intimately know the community and its citizens, which enhances the level of service they are able to provide. WCC dispatchers work on a rotational basis and are required to be familiar with all subscriber agency communities. By the nature of this rotation, WCC telecommunicators have a wider breadth of Waukesha County knowledge but not the depth of City of Waukesha knowledge when compared to CWCC telecommunicators. That said, modern CAD systems provide a significant amount of supplementary information that can assist telecommunicators. For example, modern systems provide real-time mapping which includes caller location and call history. During a call for service, modern CAD systems query and plot the entered address as well as retrieve the history of a specific location. This spatial awareness tool also provides the history of activity at that location, associated warnings, as well as pre-plans (e.g., entry directions), amongst other information. Further, these systems have data entry tools that can assist call-takers in entering the correct address as all location information goes through a validation process. For example, if a user attempts to enter a location that is not within the defined area, the system returns potential matches, typically based on Soundex or closest spelling. Further, systems also utilize aliases and commonplace names to allow users to narrow down locations when a caller is referencing a popular location without knowing the exact address. When comparing the two current environments, the CWCC dispatcher would undoubtedly have more local knowledge than the WCC dispatcher; however, the modern CAD system at WCC could help to reduce the gap. Further, local knowledge would be improved via a repetition of services.

Call Transfers

All wireless 9-1-1 calls are routed through the WCC. When a call is received at the WCC for an agency with its own PSAP, it must be appropriately transferred. In 2015, the WCC transferred an estimated 10,004 wireless calls to the CWCC. This process can take anywhere from 15 – 45 seconds and add considerable time to an agency's response. By moving to WCC, the need to transfer Waukesha city calls to the CWCC would be eliminated, which would reduce call processing times. As previously discussed, NFPA standards set call processing times at 60 and 90 seconds; with the current call transferring process, the ability to meet those goals is significantly hampered for all wireless calls. As long as the WCC remains the sole answering point for wireless 9-1-1 calls, this will

remain an issue for the City (and all agencies not dispatched by WCC) in responding to those call types. Though the City has requested the responsibility of wireless 9-1-1 calls received by cellular towers in the City limits to be transferred to the City, the WCC has not relinquished this duty.

Conclusion

There are numerous benefits and disadvantages for the City should it move dispatching services to the WCC. While dispatcher local knowledge would likely be reduced, the City and community as a whole would benefit by having greater situational awareness of ongoing incidents within the County. Should the Fire community wish to move to borderless dispatching and increase mutual and automatic aid, having all participating agencies dispatched at a single center greatly enhances the chances of success⁴. The potentially greatest benefit of moving to the WCC is the elimination of the call transfer process of wireless 9-1-1 calls, which in turn will improve response times on wireless 9-1-1 calls for both the Waukesha Police and Fire Departments.

⁴ As an alternative, agencies could develop CAD-to-CAD interfaces for all participating PSAPs. However, CAD-to-CAD interfaces are expensive, timely to develop, and relatively rare in the dispatching community.

Projecting Workload

In making a decision about the future of dispatch services, a critical component for the City to consider is the ability of the WCC to absorb the increased workload. Put simply, does the WCC currently have the necessary staffing resources to provide the expected level of service or will additional hiring be required? The following subsections outline the process DELTAWRX used to determine the anticipated workload increase as well as the corresponding required staffing resources.

Considered Positions

Three on-the-floor positions were considered as part of this analysis: call-takers, dispatchers, and supervisors. Currently the WCC operates the call-taker position as a dynamic position. That is, the number of call-takers is a variable number that is staffed according to actual workload and desired level of service. The dispatcher and supervisor positions are static. Regardless of actual workload, the number of these positions remains the same – one dispatcher per dedicated radio position and one supervisor on duty at all times.

Supervisors

In a transfer of services scenario, we assume no impact to the supervisor position; regardless of the number of positions added, there will always be a single supervisor on-duty, as is the case today. Though hourly staffing would be expected to increase, it is an incremental increase (typically two to three positions). Therefore, we assume the additional supervisory workload would be manageable without the need to increase supervisory staff.

Dispatchers

With regard to dispatcher positions, we assume the following impacts:

- (1) The addition of Waukesha Fire would increase the Fire dispatch positions from one to two. Currently all WCC Fire agencies are dispatched and monitored by a single position. As the would-be largest fire agency, Waukesha Fire would significantly impact radio traffic due to its relative high volume of incidents. Remaining on a single channel to manage both dispatch and operations would have an adverse impact on all agencies in the region. By moving to two channels (each monitored by a dispatcher), the WCC would minimize this impact and likely be more capable of maintaining a high level of service to each fire agency

as one position would be responsible for the dispatch of incidents while the other position could provide operational support (e.g., incident management, unit monitoring, etc.).

- (2) Waukesha Police would require a dedicated dispatch position. As the largest law enforcement agency, its workload necessitates a dedicated position and cannot be served appropriately if it was to operate on the same channel as another agency. Within the WCC, there are agencies that share a channel today; however, they are much smaller agencies as compared to the Waukesha Police Department.

Based on these assumptions, the addition of Waukesha Police and Fire would require two 24/7 dispatch positions.

While we believe these staffing estimates to be realistic depictions of likely adjustments, it should be noted that there is no guarantee that increases would ultimately be adopted by the WCC. Final decisions on the operational structure likely would be developed during a transition period in which data is further analyzed and after discussions with the City.

Call-Takers

As aforementioned, the WCC staffs call-taker positions by workload and desired level of service. Specific to the desired level of service, the WCC aims to meet the NFPA 1221 standard in regard to call-answering time – 95% of emergency calls answered within 15 seconds and 99% answered within 40 seconds. In order to determine the number of call-takers required, the WCC utilizes an industry standard Erlang-C calculation that takes into account both the desired level of service and actual call volume. To determine the number of call-takers required for the WCC with the absorption of the City's call volume, we applied the same level of service standard in combination with the new total call volume. However, due to current technological limitations of the City's E9-1-1 system, the actual call volume is unknown. As such, DELTAWRX performed the following to determine the anticipated workload and corresponding call-taker required staffing:

1. Projecting Call Volume Across Time of Day

In 2015, the City dispatched a total of 74,473 total incidents – 67,729 incidents for the Police Department and 6,744 incidents for the Fire Department. In statistics provided by the Police Department, the breakdown of calls for Police was available on a per-hour basis. For the Fire Department, that information was not available. As such, DELTAWRX projected Fire Department

hourly call volume by applying the distribution of Police Department calls per hour to the total call volume of the Fire Department. For example, during the 0400 hour 1% of all Police Department calls occurred; we therefore projected that 1% of all Fire Department calls would also occur during that hour. CAD data, however, does not reflect actual call volume as not all calls result in a call for service. As actual call volume was not available, DELTAWRX projected the call volume based upon the WCC's rate of calls to CAD events. In 2015, the number of calls for WCC from January 1, 2015 to December 9, 2015 was 315,328. Over the course of a full calendar year, this is projected to result in 335,824 calls. During the entirety of 2015, WCC had 286,106 CAD events. As such, this results in a rate of 1.17 calls to CAD events. The 1.17 multiplier was then applied to the previous call volume. The results are shown in Table 7.

Table 7. Projected Call Volume

Hour of Day	WKPD	WKFD	Total
0000	10.24	1.02	11.26
0100	9.85	0.98	10.83
0200	9.20	0.92	10.12
0300	5.61	0.56	6.16
0400	2.35	0.23	2.59
0500	3.56	0.35	3.91
0600	5.09	0.51	5.60
0700	6.07	0.60	6.68
0800	9.87	0.98	10.85
0900	10.78	1.07	11.86
1000	12.57	1.25	13.82
1100	10.28	1.02	11.30
1200	9.86	0.98	10.84
1300	10.44	1.04	11.48
1400	9.18	0.91	10.10
1500	11.72	1.17	12.89
1600	12.16	1.21	13.37
1700	11.84	1.18	13.02
1800	10.93	1.09	12.02
1900	9.78	0.97	10.75
2000	9.99	0.99	10.99
2100	10.04	1.00	11.04
2200	7.79	0.78	8.57
2300	8.62	0.86	9.47
Total	217.81	21.7	239.5
Average	9.08	0.90	9.98

2. *Adjusting for Existing Calls*

Currently WCC receives all wireless 911 calls for the County. In 2015, WCC transferred 22,489 calls in total – 9,346 of which were transferred to the City. As aforementioned, this data is only applicable for the time period from January 1, 2015 to December 8, 2015. To take into account these missing days, DELTAWRX projected the remaining three weeks, which resulted in an anticipated total of 10,004 for 2015. As the transfers would no longer be applicable in a consolidated environment, this total was then subtracted from the previous total resulting in the total call volume shown in Table 8.

Table 8. Adjusted Call Volume

Hour of Day	Previous Total	Transfers	Total
0000	11.26	1.29	9.97
0100	10.83	1.24	9.59
0200	10.12	1.16	8.96
0300	6.16	0.71	5.46
0400	2.59	0.30	2.29
0500	3.91	0.45	3.46
0600	5.60	0.64	4.96
0700	6.68	0.76	5.91
0800	10.85	1.24	9.61
0900	11.86	1.36	10.50
1000	13.82	1.58	12.24
1100	11.30	1.29	10.01
1200	10.84	1.24	9.60
1300	11.48	1.31	10.16
1400	10.10	1.16	8.94
1500	12.89	1.47	11.41
1600	13.37	1.53	11.84
1700	13.02	1.49	11.53
1800	12.02	1.38	10.64
1900	10.75	1.23	9.52
2000	10.99	1.26	9.73
2100	11.04	1.26	9.77
2200	8.57	0.98	7.59
2300	9.47	1.08	8.39
Total	239.49	27.41	212.09
Average	9.98	1.14	8.84

3. *Adjusting for Incoming vs. Outgoing Calls*

Next we projected the percentage of calls that likely would be incoming calls versus those that likely would be outgoing calls. As this data is unavailable for the City, DELTAWRX made projections based on the existing rate at the WCC – 2.467 incoming calls to every outgoing call. This rate was then applied to the previous totals. Results are shown in Table 9.

Table 9. Projected Incoming vs. Outgoing Calls

Hour of Day	Incoming	Outgoing
0000	7.09	2.88
0100	6.82	2.77
0200	6.38	2.58
0300	3.88	1.57
0400	1.63	0.66
0500	2.46	1.00
0600	3.53	1.43
0700	4.21	1.71
0800	6.84	2.77
0900	7.47	3.03
1000	8.71	3.53
1100	7.12	2.89
1200	6.83	2.77
1300	7.23	2.93
1400	6.36	2.58
1500	8.12	3.29
1600	8.43	3.42
1700	8.21	3.33
1800	7.57	3.07
1900	6.77	2.75
2000	6.92	2.81
2100	6.95	2.82
2200	5.40	2.19
2300	5.97	2.42
Total	150.92	61.17
Average	6.29	2.55

4. *Projecting Existing Call Volume*

Next we determined the hourly call volume for the WCC. As the full calendar year for 2015 was not available, DELTAWRX used the projected call volume of 335,824 and distributed it along the

hourly basis along the 2014 hourly distribution. For example, if 2.1% of calls occurred at 0000 in 2014, the identical was assumed for 2015. The results are shown in Table 10.

Table 10. WCC 2015 Projected Hourly Call Distribution

Hour of Day	Incoming	Outgoing	Total
0000	13.89	7.42	21.37
0100	11.00	6.19	17.24
0200	9.93	5.75	15.74
0300	8.20	4.64	12.87
0400	7.48	3.80	11.31
0500	8.83	4.44	13.30
0600	14.67	6.73	21.42
0700	26.44	11.09	37.54
0800	31.04	11.88	42.90
0900	32.45	11.78	44.18
1000	34.74	12.39	47.08
1100	34.35	12.72	47.03
1200	35.44	12.73	48.13
1300	37.62	13.56	51.12
1400	38.34	14.49	52.80
1500	48.30	18.01	66.26
1600	46.57	18.05	64.60
1700	42.66	16.29	58.93
1800	37.48	14.70	52.16
1900	33.22	14.40	47.65
2000	30.41	13.47	43.92
2100	27.85	11.86	39.73
2200	24.36	10.67	35.06
2300	19.42	8.31	27.74
Total	654.70	265.37	920.07
Average	27.28	11.06	38.34

5. *Projected Call Volume*

The projected call volumes for both the WCC and the City were then combined to project total call volume for the CWCC and the WCC. Results are shown in Table 11.

Table 11. Projected Call Volume: CWCC + WCC

Hour of Day	Incoming	Outgoing	Total
0000	20.98	10.30	31.28
0100	17.82	8.95	26.78

Hour of Day	Incoming	Outgoing	Total
0200	16.31	8.34	24.65
0300	12.08	6.21	18.29
0400	9.11	4.46	13.57
0500	11.30	5.44	16.74
0600	18.19	8.16	26.35
0700	30.65	12.79	43.44
0800	37.88	14.65	52.53
0900	39.92	14.80	54.72
1000	43.44	15.92	59.37
1100	41.47	15.60	57.08
1200	42.27	15.50	57.77
1300	44.85	16.49	61.34
1400	44.70	17.07	61.77
1500	56.42	21.30	77.72
1600	55.00	21.47	76.47
1700	50.87	19.62	70.49
1800	45.06	17.77	62.82
1900	39.99	17.15	57.14
2000	37.34	16.28	53.61
2100	34.80	14.68	49.48
2200	29.77	12.86	42.62
2300	25.39	10.73	36.12
Total	805.61	326.54	1132.15
Average	33.57	13.61	47.17

6. *Projecting Required Call-Takers*

Lastly, DELTAWRX utilized an Erlang-C calculation to determine the number of additional call-takers required. The Erlang-C calculation takes into account total call volume, service level standards, and length of call. For call volume, we utilized the data in Table 11. For service level standards, we utilized the NFPA 1221 standard of 95% answered within 15 seconds. For call length, we used 91 seconds based on a calculation of the average length of incoming (106 seconds) and outgoing calls (54 seconds) from 2014 (the latest data available) and the rate of each call type (71% incoming and 29% outgoing)⁵. In Table 12 column two shows the number of call-takers WCC staffs on average (WCC varies staffing by day of week and therefore some positions are represented in fractions); column three shows the projected number of call-takers required in a consolidated center;

⁵ The resulting formula: $(106 \cdot .71) + (54 \cdot .29) = 91$ seconds

and column four shows the difference (i.e., additional number of call-takers required). The final rows show the total number of position hours to be filled and the average number of call-takers required.

Table 12. Required Call-Takers

Hour of Day	Call-Takers (WCC only)	Call-Takers (WCC + CWCC)	Difference
0000	2	3	1.0
0100	2	3	1.0
0200	2	3	1.0
0300	1	3	2.0
0400	1	2	1.0
0500	1	3	2.0
0600	1.7	3	1.3
0700	2.7	4	1.3
0800	2.7	4	1.3
0900	3	4	1.0
1000	3.7	5	1.3
1100	3.7	4	0.3
1200	3.7	4	0.3
1300	3.7	5	1.3
1400	4	5	1.0
1500	4	5	1.0
1600	4	5	1.0
1700	4	5	1.0
1800	4	5	1.0
1900	3.3	4	0.7
2000	3.3	4	0.7
2100	3.3	4	0.7
2200	3.3	4	0.7
2300	2	4	2.0
Total	69	95	26
Average	2.88	3.96	1.08

Call-Taker Summary

As shown in Table 12, it would take on average four call-takers staffed per day to meet the anticipated demands of a consolidated center, an increase of approximately one call-taker per hour. Similar to dispatcher staffing, these are projected positions that may or may not be adopted by WCC should a transition of dispatch services occur.

Impact on Current Staffing

Number of Staff Required

The number of additional hours that would need to be filled at WCC is 74. This is based on 48 hours per day to be filled by dispatch positions (1 PD, 1 Fire/EMS) and the additional 26 hours to be filled by additional call-takers. Over the course of a year, this equates to 26,974 hours.

Calculating FTEs from Total Hours

To determine the number of employees needed to fill a role, the total hours required to be filled are divided by the number of available hours per employee. Available hours are derived by subtracting “unavailable hours” (e.g., breaks, training, sick days, vacation, etc.) from the number of hours an employee is scheduled. According to WCC data, the average availability of an employee over the past three years is 1,526.4 hours per year. As such, we divided 26,974 by 1,526.4, which results in 17.7 FTEs.

Lastly, the final calculation considered is the turnover rate. Simply put, should any telecommunicator leave, it is critical that additional staff be trained and available to meet the demand without a loss of service. At WCC, the turnover rate is 14%. As such, we multiplied the 17.7 FTEs by 1.14, which results in 21 FTEs.

Conclusion

Currently WCC employs 41 FTE telecommunicators (excluding supervisors and management personnel), and expects an increase of six in mid-September. Of those 47 telecommunicators, six are currently in training with another six to begin training in mid-September. To meet projected demands, WCC will likely be required to hire an additional 21 telecommunicators, an increase in staffing by 45%. As a point of comparison, the most recent WCC hiring class (expected start date of September 2016) was comprised of six individuals, which were selected from 440 total applicants. Of the 440 applicants, 43 passed the CritiCall exam (the final skills tests administered by WCC), of which the highest scoring 32 individuals were invited for formal interviews.

Financial Analysis

As part of our examination, DELTAWRX conducted an in-depth analysis comparing the costs of the Status Quo as compared to moving dispatch services to the WCC. All costs were calculated over a ten-year period. Generally speaking, for future unknown costs, a 2% cost increase was assumed for City personnel costs whereas a 5% cost increase was assumed for most third party support. For many cost categories no increase was assumed based on recommendations from City personnel. In addition, some costs that would be the responsibility of the Fire Department (e.g., ESO interface, Mobiles) were lump-summed into the Police Department costs. This was done solely due to the comparative level of expenditures of the Waukesha Fire Department as compared to the Waukesha Police and IT Departments.

Please note that the current fees paid by the City of Waukesha for services administered by WCC (but not received by the City) are excluded from this report. We consider these sunk costs. Regardless of the City's decision regarding transitioning dispatch services, the City will remain responsible for this fee. It is reasonable to assume that the fee will increase in some manner should a transition occur as additional staffing would be required.

Status Quo Costs

In analyzing the costs of the Status Quo, DELTAWRX projected costs in two primary categories: (1) City of Waukesha IT Costs and (2) Waukesha Police Department costs.

City of Waukesha IT Status Quo Costs

The City of Waukesha IT costs focus on hardware and software costs. As shown in Table 13, the majority of costs are related to ProPhoenix support and the 9-1-1 Phone System, which is slated for replacement pending the results of this report (the first five years of the cost of maintenance were quoted by the vendor at a rate of \$33,048 annually; the cost of maintenance for years six – ten are projected to increase at 2% annually). Other cost categories are related to the maintenance of the system in terms of hardware, application support and/or licenses. In total, IT costs are projected to be \$1,740,496 over the next ten years. Please note, however, that this does not include internal labor costs (i.e., City of Waukesha IT personnel providing support to the CWCC). These costs were not included since they are generally provided on an as-needed basis and not as a specific line-item. That said, those costs are minimal when compared to other cost categories.

City of Waukesha Police Department Status Quo Costs

As shown in Table 14 , the City of Waukesha Police Department costs are primarily related to Salary and Benefits, whereas other costs are static and are not impacted by consolidation. In total, Police Department costs are projected to be \$15,762,721 over the next ten (10) years.

As a whole, total CWCC operational costs are projected to be \$17,503,217 over the next ten years.

Table 13. Status Quo Costs: IT

Year	911 Phone System	MS Office	ProPhoenix	Marathon/ Stratus	Dispatch Recording System	Dispatch UPS	911 Servers	Dispatch Switches	Total
Year 1	\$187,358	\$4,112	\$78,125	\$3,938	\$1,800	\$4,018	\$45,000	\$1,089	\$325,439
Year 2	\$33,048	\$4,112	\$82,032	\$4,134	\$1,800	\$4,219	\$ -	\$1,143	\$130,487
Year 3	\$33,048	\$4,112	\$86,133	\$4,341	\$1,800	\$4,430	\$ -	\$1,200	\$135,064
Year 4	\$33,048	\$4,112	\$90,440	\$4,558	\$1,800	\$4,651	\$ -	\$1,260	\$139,869
Year 5	\$33,048	\$4,112	\$94,962	\$4,786	\$1,800	\$4,884	\$ -	\$1,323	\$144,915
Year 6	\$33,709	\$4,112	\$99,710	\$5,025	\$1,800	\$5,128	\$45,000	\$1,389	\$195,873
Year 7	\$34,383	\$4,112	\$104,695	\$5,277	\$1,800	\$5,384	\$ -	\$1,459	\$157,110
Year 8	\$35,071	\$4,112	\$109,930	\$5,540	\$1,800	\$5,653	\$ -	\$1,532	\$163,638
Year 9	\$35,772	\$4,112	\$115,427	\$5,817	\$1,800	\$5,936	\$ -	\$1,608	\$170,473
Year 10	\$36,488	\$4,112	\$121,198	\$6,108	\$1,800	\$6,233	\$ -	\$1,689	\$177,627
Total	\$494,973	\$41,120	\$982,651	\$49,525	\$ 18,000	\$50,535	\$90,000	\$13,692	\$1,740,496

Table 14. Status Quo Costs: Waukesha Police Department

Year	Salary and Benefits	Teletype	Trunk Radio	Machinery and Equipment	Radio Service	Office Supplies	Computer Supplies	Total
Year 1	\$1,372,436	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$1,445,929
Year 2	\$1,399,885	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$1,473,378
Year 3	\$1,427,882	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$1,501,375
Year 4	\$1,456,440	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$1,529,933
Year 5	\$1,485,569	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$1,559,062
Year 6	\$1,515,280	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$1,588,773
Year 7	\$1,545,586	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$1,619,079
Year 8	\$1,576,498	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$1,649,991
Year 9	\$1,608,028	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$1,681,521
Year 10	\$1,640,188	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$1,713,681
Total	\$15,027,791	\$148,000	\$162,930	\$113,000	\$285,000	\$20,000	\$6,000	\$15,762,721

Projected Costs

In projecting costs, we divided costs across both the City of Waukesha IT Department and Waukesha Police Department. In addition, we included the City's fee to join the WCC and the projected increase in costs for the City related to the increased staffing costs at WCC.

Please note that Year 1 is expected to be a transition year in which both WCC and CWCC would both remain operational; any existing costs would remain, except for the City's expected purchase of an E9-1-1 phone system, which would not be procured. During the Year 1 transition period, WCC would be hiring and training new personnel, meeting with City staff to develop a transition plan, as well as configuring the CAD system as needed (e.g., response plans, GIS map build, etc.). Due to a variety of unknown factors, costs to complete these tasks are not projected.

City of Waukesha IT Projected Costs

As shown in Table 17, the majority of City of Waukesha IT costs related to the provision of dispatch services would be eliminated. The E9-1-1 Phone System, Marathon/Stratus, 911 Servers, and Dispatch Switches would no longer be required. The MS Office and ProPhoenix costs would be lowered due to a reduction in the number of required licenses and services and applications that require support. The number of MS Office licenses would decrease to seven (from 16) and the total support payment to ProPhoenix would be reduced by \$25,167 with the elimination of CAD support. In total, projected costs to Join WCC over ten (10) years for the City of Waukesha IT are forecasted to be \$757,651.

City of Waukesha Police Department Projected Costs

Specific to the Police Department, the vast majority of costs are unaffected by the reduction in services as the access to those systems and services would still be required. The largest affected line item is the Salary and Benefits category. As the WCC would not take over all services for the City, the Police Department would still require a 24/7 position to assist with duties, which is equivalent to six personnel plus an additional supervisor. The cost for each position (salary and benefits) supervisor position would be \$111,228 and \$91,496 per the remaining FTEs. In addition, there would be two additional cost categories: Mobile Licenses and Interfaces. The Mobile licenses refers

to the field software required by Police and Fire with the transition to the County (total of 66)⁶ as well as remote access to the CAD system via iNetViewer. The interface costs refer to the cost to build an interface from the Intergraph system to the ProPhoenix system to transfer CFS information, as well as an interface for the ESO Fire RMS. Both interfaces already exist today at the WCC; the City would be responsible for paying ProPhoenix a one-time fee of \$35,000 as well as 25% of the original development costs for the Intergraph-to-ProPhoenix RMS (\$11,490 + \$1,700 in annual maintenance thereafter). Assuming the same logic for ESO, the City would incur \$2,600 in one-time costs plus an additional \$450 in annual maintenance for the Intergraph-to-ESO interface. For both interface and Mobile costs, we are assuming a 5% annual cost increase. Please note that interface costs are preliminary and based on previous purchasing agreements by WCC.

Fee to Join

In addition to the impact to the City's operational costs, the City also would be required to pay a fee to join the WCC per Enrolled Ordinance 157-39, which states the following:

"BE IT FURTHER ORDAINED that communities committing to participate in the Shared Dispatch operation after October 17, 2002, will have their pro rata contribution determined at \$.0782 per \$1,000 of the community's total equalized value (TID value in) based on the latest Wisconsin Department of Revenue Report."

In 2015, the equalized value of the City of Waukesha was \$5,664,111,660. Per the formula in the Ordinance, this results in a one-time fee of \$442,934.

Additional WCC Staffing Costs

As discussed in Level of Service, the absorption of the CWCC will likely require an increase in 21 FTEs for the WCC. The cost of a new hire (salary and benefits), is estimated to be \$63,599. This cost is determined using the Step 8 mid-point plus a 30% cost for anticipated benefits. Each year we have included a 3.1% increase, which is the average yearly step increase (2%) plus a 1.1% cost of living adjustments (COLA). As shown in Table 15, the ten year additional costs to WCC are estimated to be \$14,767,433.

⁶ This analysis assumes that the City will utilize the Intergraph Mobile application and discontinue use of the ProPhoenix Mobile application.

Table 15. WCC Additional Staffing Costs

Year	Staffing
Year 1	\$1,335,571
Year 2	\$1,376,973
Year 3	\$1,404,513
Year 4	\$1,432,603
Year 5	\$1,461,255
Year 6	\$1,490,480
Year 7	\$1,520,290
Year 8	\$1,550,696
Year 9	\$1,581,709
Year 10	\$1,613,344
Total	\$14,767,433

According to the Wisconsin Department of Revenue, in 2015, the total equalized value of Waukesha County was \$50,187,624,500; for the City of Waukesha, the total equalized value was \$5,664,111,600, which is approximately 11% of the County's total value. Therefore, we assume that 11% of the yearly increase in costs will be borne by the City, which results in a ten-year cost of \$1,666,634.

Table 16. Anticipated Additional City Costs to WCC

Year	Anticipated Additional City Costs to WCC
Year 1	\$150,731
Year 2	\$155,403
Year 3	\$158,512
Year 4	\$161,682
Year 5	\$164,915
Year 6	\$168,214
Year 7	\$171,578
Year 8	\$175,010
Year 9	\$178,510
Year 10	\$182,080
Total	\$1,666,634

Table 17. Projected Costs: IT

Year	911 Phone System	MS Office	ProPhoenix	Marathon/ Stratus	Dispatch Recording System	Dispatch UPS	911 Servers	Dispatch Switches	Total
Year 1	\$ -	\$1,799	\$52,958	\$3,938	\$1,800	\$4,018	\$ -	\$1,089	\$65,601
Year 2	\$ -	\$1,799	\$55,606	\$ -	\$1,800	\$4,219	\$ -	\$ -	\$63,424
Year 3	\$ -	\$1,799	\$58,386	\$ -	\$1,800	\$4,430	\$ -	\$ -	\$66,415
Year 4	\$ -	\$1,799	\$61,306	\$ -	\$1,800	\$4,651	\$ -	\$ -	\$69,556
Year 5	\$ -	\$1,799	\$64,371	\$ -	\$1,800	\$4,884	\$ -	\$ -	\$72,853
Year 6	\$ -	\$1,799	\$67,589	\$ -	\$1,800	\$5,128	\$ -	\$ -	\$76,316
Year 7	\$ -	\$1,799	\$70,969	\$ -	\$1,800	\$5,384	\$ -	\$ -	\$79,952
Year 8	\$ -	\$1,799	\$74,517	\$ -	\$1,800	\$5,653	\$ -	\$ -	\$83,770
Year 9	\$ -	\$1,799	\$78,243	\$ -	\$1,800	\$5,936	\$ -	\$ -	\$87,778
Year 10	\$ -	\$1,799	\$82,155	\$ -	\$1,800	\$6,233	\$ -	\$ -	\$91,987
Total	\$ -	\$17,990	\$666,100	\$3,938	\$18,000	\$50,535	\$ -	\$1,089	\$757,651

Table 18. Projected Costs: WKPD

Year	Salary and Benefits	Teletype	Trunk Radio	Machinery and Equipment	Radio Service	Office Supplies	Computer Supplies	Mobile	Interfaces	Total
Year 1	\$1,372,436	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$8,247	\$49,090	\$ 1,503,266
Year 2	\$660,202	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$8,659	\$2,150	\$744,504
Year 3	\$673,406	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$9,092	\$2,258	\$758,249
Year 4	\$686,875	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$9,546	\$2,370	\$772,284
Year 5	\$700,612	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$10,024	\$2,489	\$786,618
Year 6	\$714,624	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$10,525	\$2,613	\$801,256
Year 7	\$728,917	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$11,051	\$2,744	\$816,205
Year 8	\$743,495	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$11,604	\$2,881	\$831,473
Year 9	\$758,365	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$12,184	\$3,025	\$847,067
Year 10	\$773,532	\$14,800	\$16,293	\$11,300	\$28,500	\$2,000	\$600	\$12,793	\$3,177	\$862,995
Total	\$7,812,465	\$148,000	\$162,930	\$113,000	\$ 285,000	\$20,000	\$6,000	\$103,724	\$72,797	\$8,723,916

Summary of Costs

Operating the CWCC is projected to cost the City of Waukesha approximately \$17,503,217 over the next ten years. Transferring dispatch City responsibilities to the WCC would result in a cost savings of approximately \$5,912,083 over the same time period. Cost savings are not the full \$17,503,217 due to the transition year and the following:

- One-time fee to join WCC: \$442,934
- Waukesha Police ongoing personnel costs, interface, and license costs: \$8,723,916
- Miscellaneous IT Costs: \$757,651
- City's anticipated cost increase for WCC staffing⁷: \$1,666,634

A breakdown of projected costs is provided in Table 19.

Table 19. Projected 10-Year City Costs

Year	Joining Fees	PD Costs	IT Costs	Anticipated Add'l City Costs to WCC	City Costs Total
Year 1	\$442,934	\$1,503,266	\$65,601	\$150,731	\$2,162,531
Year 2	\$-	\$744,504	\$63,424	\$155,403	\$963,331
Year 3	\$-	\$758,249	\$66,415	\$158,512	\$983,175
Year 4	\$-	\$772,284	\$69,556	\$161,682	\$1,003,522
Year 5	\$-	\$786,618	\$72,853	\$164,915	\$1,024,386
Year 6	\$-	\$801,256	\$76,316	\$168,214	\$1,045,785
Year 7	\$-	\$816,205	\$79,952	\$171,578	\$1,067,735
Year 8	\$-	\$831,473	\$83,770	\$175,010	\$1,090,252
Year 9	\$-	\$847,067	\$87,778	\$178,510	\$1,113,355
Year 10	\$-	\$862,995	\$91,987	\$182,080	\$1,137,062
Total	\$442,934	\$8,723,916	\$757,651	\$1,666,634	\$11,591,134

Conclusion

A transfer of services to WCC could potentially save the City approximately \$5,912,083 over the next ten years. However, when the County costs are taken into account, the total operational costs of the dispatch center and remaining City services would increase approximately \$7,188,717 over the same time period as shown in Table 20.

⁷ This would likely be an increase in the County levy; however, it is possible that the levy would not be increased and funding would be absorbed from elsewhere in the County budget.

Table 20. 10-Year Cost Savings Comparison

Year	Status Quo	Join (City)	Savings (City)	Join (City + County)	Savings (City + County)
Year 1	\$1,771,368	\$2,162,531	\$(391,163)	\$3,347,371	\$(1,576,003)
Year 2	\$1,603,865	\$963,331	\$640,534	\$2,184,901	\$(581,036)
Year 3	\$1,636,439	\$983,175	\$653,264	\$2,229,176	\$(592,737)
Year 4	\$1,669,802	\$1,003,522	\$666,281	\$2,274,443	\$(604,641)
Year 5	\$1,703,976	\$1,024,386	\$679,590	\$2,320,726	\$(616,750)
Year 6	\$1,784,646	\$1,045,785	\$738,861	\$2,368,052	\$(583,405)
Year 7	\$1,776,189	\$1,067,735	\$708,454	\$2,416,447	\$(640,258)
Year 8	\$1,813,629	\$1,090,252	\$723,377	\$2,465,938	\$(652,309)
Year 9	\$1,851,993	\$1,113,355	\$738,638	\$2,516,555	\$(664,562)
Year 10	\$1,891,309	\$1,137,062	\$754,247	\$2,568,326	\$(677,017)
Total	\$17,503,217	\$11,591,134	\$5,912,083	\$24,691,934	\$(7,188,717)

Conclusion and Recommendations

This study has assessed the operational, technological, governance, financial and cultural impacts that transitioning dispatch services could have on the City of Waukesha. Our findings conclude that joining the WCC as a subscriber agency is a feasible option for the City, however we do not recommend that action for the City at this time. Prior to finalizing its decision the City should revisit the original questions of the study:

- 1) Would a transition to the WCC result in an improved level of service?
- 2) Would a transition to the WCC result in cost savings?

Level of Service

Based on available metrics, reviews of WCC strategic plans, policies and procedures as well as discussions with WCC subscriber agencies, we believe that if fully staffed the WCC can offer a satisfactory level of call-taking and dispatching services to the City. However, the type of services provided by the WCC would almost certainly be different than those provided by the CWCC and would be particularly impactful to the Police Department. In order to meet the expected level of service, the Police Department would be expected to maintain a local staff while WCC would be required to increase their telecommunications staff by an estimated 45%. Further, decision-making authority and control over policies and procedures related to the Communications Center would be transferred to the County. Lastly, while the agreements provided by the WCC to its subscriber agencies outline specific services to be provided, specific service levels would not be guaranteed.

Cost Savings

The City would likely recognize significant cost savings in moving to the WCC, though these savings would be limited due to the need to retain staff needed to complete the tasks that would not be performed at the WCC. The County would see a significant operational cost increase due to the additional staff required.

Conclusion

Both CWCC and WCC are professional dispatch organizations with well-established policies and procedures. WCC has made significant investments in infrastructure and has a strategic focus on improving the service it provides to its subscriber agencies. The increase in the expected workload, however, presents a significant risk to both the City and to the WCC. The WCC would have to

grow at a significant rate in a short period of time in order to meet its own service expectations. Further, transferring dispatch services to the WCC would reduce the City's position of influence in communications related issues. Lastly, though a move to the WCC would result in cost-savings to the City, the overall costs of the County would increase and exceed the cost savings of the City. Due to these primary reasons, we recommend the City maintain the CWCC and continue to provide dispatch services in-house. Table 21 provides a visual summary of our findings.

Table 21. Summary of Potential Benefits and Disadvantages

Issue	Summary of Impact	Will the Level of Service Be: Reduced, Maintained, or Improved?	Will Costs for the City Be: Reduced, Maintained, or Increased?
Services	WCC does not provide identical services to that of the CWCC. In order to meet those needs, the Waukesha Police Department would have to hire other staff to provide the services the City is expecting.	<u>Maintained</u> Though the services will not be provided via dispatch, alternative staffing measures can provide the expected services. The likely negative impact, however, will be that fewer dispatchers are dedicated to the City.	<u>Reduced</u> The number of staff necessary is reduced.
Technical and Physical Limitations	WCC has adequate space to house an increase in dispatcher positions. Moving to WCC will require the deployment of interfaces to the City's existing RMS applications.	<u>Maintained</u> There are no physical or technical limitations that prevent a move to WCC.	<u>Reduced</u> IT costs to maintain the dispatch center will be greatly reduced.
Center Governance and Organizational Culture	WCC is owned by the County and members play advisory roles. Moving to WCC will require the City to participate in a cooperative governance structure with an advisory role.	<u>Reduced</u> Ownership of the Center is eliminated, thus reducing the ability of the City to dictate operational and policy decisions. Further, the culture will be altered significantly as the City moves into a Center that serves multiple jurisdictions.	<u>Not Applicable</u>
Benchmarks, Third Party Certifications and Customer Satisfaction	WCC is an agency focused on providing call-taking and dispatching services with high service level standards, is actively seeking certifications, and an active QA policy.	<u>Maintained</u> Customer satisfaction at both WCC and CWCC was high at each dispatch center. While it is likely that there would be initial growing pains for the City should they move to WCC, the organizational structure built at WCC provides avenues to ensure	<u>Not Applicable</u>

Issue	Summary of Impact	Will the Level of Service Be: Reduced, Maintained, or Improved?	Will Costs for the City Be: Reduced, Maintained, or Increased?
		the level of service meets the City's needs.	
Mutual Aid and Borderless Dispatching	WCC provides the easiest avenue to share data amongst participating agencies and open the path for the potential of borderless dispatching.	<u>Improved</u> The City would have the technical ability to access other ongoing events in the County electronically.	<u>Not Applicable</u>
Local Knowledge	WCC dispatchers serve multiple agencies; as such, they are required to be knowledgeable of multiple communities and unique policies and procedures of each agency.	<u>Reduced</u> The City would no longer have dispatchers solely dedicated to the community.	<u>Not Applicable</u>
Call Transfers	WCC receives all wireless 9-1-1 calls, which necessitates a call transfer when the call requires a Waukesha agency to respond.	<u>Improved</u> The call transfer would no longer be required, thus improving response times.	<u>Not Applicable</u>
WCC Staffing Required	WCC would likely require 21 additional staff, an increase of approximately 46%.	<u>Reduced</u> The level of hiring is significant. Such a large increase in staffing in a short period of time will likely reduce the level of service for both the City and other agencies served by WCC.	<u>Reduced</u> While more staff will be required, the cost would be the responsibility of the County as opposed to the City.

Additional Recommendations

In addition to our recommendation to maintain the CWCC, we recommend the following:

- **The CWCC should make a commitment to an increased use of analytics.** Simply put, “what gets measured gets improved.” The CWCC should create monthly reports that analyze call-answering and processing times as well as utilization rates of employees. Further, the CWCC should commit to an increased use of QA review, to include both law enforcement and fire-related calls. These reviews will provide quantifiable facts that can be used to determine necessary staffing levels and help to identify areas of improvement.

- **Consider Waukesha Fire and Waukesha Police as partners at the CWCC.** Though the CWCC is operated by the Waukesha Police Department, the Waukesha Fire Department should be considered a valued partner in regard to communications and a partnership should be formalized. Similar to the advisory groups used by the WCC, the CWCC should involve Waukesha Fire leadership to discussion communications-related issues, review reports, and discuss ways in which the overall dispatch center may be improved.
- **As the WCC grows, explore future partnerships.** Should WCC continue to attract new members and sufficiently manage the necessary rate of hiring, the City should re-investigate this option.

Appendix 1: Alternative Waukesha PD Additional Staffing

As discussed in Level of Service, the Waukesha Police Department recommends six FTEs and one supervisor to fulfill the duties that would not be transferred to the WCC. The majority of the duties that would be done by these positions are not quantifiable and are not limited to certain hours of the day. Due to these limitations, it is difficult to determine how many positions would be required and is why we rely on the expertise of the Waukesha Police Department leadership. However, simply to show the financial impact of an alternative, we have analyzed a staffing alternative.

As a final note, this is not a recommendation, solely an alternative analysis for the purposes of this report.

Staffing Alternative

Whereas the previous assumption requested a dedicated FTE on-duty at all times, the alternative assumes an individual on-duty only during non-business hours. For the purposes of this exercise, non-business hours are 5 PM – 7 AM, Monday through Thursday; and 5 PM Friday – 7 AM Monday for weekends. In total, this equates to 6,136 hours to be filled per year. With an average employee availability of 1,760 hours per year, this would require 3.5 employees, which rounded up equals 4 FTEs. Additionally, for the purposes of this exercise, we are assuming that supervisory duties would fall under an existing position.

In summary, the alternative is 4 FTEs, a reduction from 6 FTEs + 1 supervisor.

Financial Impact

The reduction in staff alters the total cost for the City in regard to salary and benefits. As shown in Table 22, the alternative results in total cost savings of \$2,870,001 over the course of 10 years.

Table 22. Alternative Staffing – Financial Impact

Year	Original Assumption	Alternative
Year 1	\$1,372,436	\$1,372,436
Year 2	\$660,202	\$365,983
Year 3	\$673,406	\$373,303
Year 4	\$686,875	\$380,769
Year 5	\$700,612	\$388,384
Year 6	\$714,624	\$396,152
Year 7	\$728,917	\$404,075

Year	Original Assumption	Alternative
Year 8	\$743,495	\$412,156
Year 9	\$758,365	\$420,399
Year 10	\$773,532	\$428,807
Total	\$7,812,465	\$4,942,464

As shown in Table 23, the total cost savings for the City rise from an anticipated \$5,949,495 to \$8,782,855 over 10 years and the total cost increase (City and County costs combined) is reduced from a projected \$7,188,717 to \$4,317,944.

Table 23. Total Cost Impact – Alternative Staffing

Year	Status Quo	Join (City)	Savings (City)	Join (City + County)	Savings (City + County)
Year 1	\$1,771,368	\$2,161,760	\$(390,392)	\$3,346,600	\$(1,575,232)
Year 2	\$1,603,865	\$669,112	\$934,753	\$1,890,682	\$(286,816)
Year 3	\$1,636,439	\$683,071	\$953,368	\$1,929,072	\$(292,633)
Year 4	\$1,669,802	\$697,416	\$972,386	\$1,968,337	\$(298,535)
Year 5	\$1,703,976	\$712,158	\$991,818	\$2,008,498	\$(304,522)
Year 6	\$1,784,646	\$727,313	\$1,057,334	\$2,049,579	\$(264,933)
Year 7	\$1,776,189	\$742,893	\$1,033,296	\$2,091,605	\$(315,416)
Year 8	\$1,813,629	\$758,913	\$1,054,716	\$2,134,599	\$(320,970)
Year 9	\$1,851,993	\$775,389	\$1,076,604	\$2,178,589	\$(326,596)
Year 10	\$1,891,309	\$792,337	\$1,098,972	\$2,223,601	\$(332,292)
Total	\$17,503,217	\$8,720,362	\$8,782,855	\$21,821,161	\$(4,317,944)