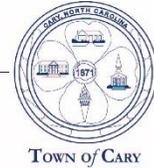


Staff Report for Town Council



Meeting Date: January 10, 2019

Consideration of Interlocal Agreement for Emergency Dispatch and Communications Services

Purpose: To consider the adoption of an Interlocal Agreement (ILA) through which Cary shall provide emergency dispatch and communication services to Apex and Morrisville.

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Executive Summary: The Town of Cary displays regional leadership in providing public services to our neighbors through clean drinking water and wastewater infrastructure. Strengthening bonds with our neighbors benefits the Town and our partners. Apex and Morrisville have sought a new partnership with Cary to utilize our high quality 9-1-1 services through an Interlocal Agreement (ILA). Beginning in March, Apex and Morrisville would be served by Cary's emergency dispatch services, creating a streamlined response process for emergencies. Cary residents would benefit from this partnership through the additional support of Apex and Morrisville police and fire responders.

Recommendation: *Staff recommends that Council adopt the attached Resolution authorizing the Town Manager to enter into the "Interlocal Agreement for Emergency Dispatch And Communications Services Resolution" ("Agreement") and authorizing the Town Manager to modify Agreement before execution by all parties, provided the modifications are consistent with the general intent of the Agreement.*

Background: In the mid-70s, while the Cary Town Council was anticipating its municipal growth and desired level of service, it authorized the Police Department to establish a Public Safety Answering Point (PSAP), the first point of reception for 9-1-1 calls made within its municipal boundary. A PSAP is synonymous with a 9-1-1 Center or Emergency Communications Center. Once calls are received, Emergency Communication Officers (ECO) provide emergency dispatch and communications services by interacting with callers, dispatching appropriate resources and monitoring public safety personnel (Police, Fire, or EMS) as they respond to emergencies. Cary's PSAP was the first in Wake County to use the 3-digit 9-1-1 telephone number. In the 1980s, Cary was the first to utilize Enhanced 9-1-1 services, whereby the telephone number and street address of the caller is provided to the PSAP. As one can see, Cary has a long history of providing public safety leadership and exemplary services to its citizens. Moreover, Cary's PSAP is routinely evaluated for its effectiveness. Both Police and Fire Department accredited statuses rely on PSAP performance, as does the Town's ISO Class 1 public fire protection rating from VeraRisk.

Cary is one of several Primary PSAPS within Wake County, another being the Raleigh-Wake Emergency Communications Center (RWECC) operated by Raleigh. Currently, 9-1-1 calls that originate from within the service boundaries of Apex and Morrisville are routed to the RWECC for receipt and dispatch. This current arrangement between Wake County, Apex, and Morrisville is set to expire in 2019.

In the Fall of 2016, Apex and Morrisville approached Cary to discuss the possibility of Cary's PSAP providing emergency dispatch and communications services based on Cary's PSAP

measured performance for 9-1-1 call processing. Staff from all three municipalities believed this improved performance and consolidated public safety communication and coordination function would also translate to enhanced situational awareness for public safety responders and would create more opportunities for the three municipalities to combine public safety staff and facilities. If this held true, citizens of each jurisdiction would benefit from improved services and would receive a greater return on their fiscal investment.

In order to determine the feasibility of such an arrangement, the municipalities engaged the public safety communications consulting firm of L. R. Kimball to conduct a PSAP Service Improvement Study (Study). The Study results supported the municipalities' desire to proceed toward a Cary-operated Primary PSAP and created an implementation plan that identified the staffing and technical improvements needed to enable the Primary PSAP to receive and dispatch 9-1-1 calls from Apex and Morrisville. It also proposed ideas for the ongoing operation and funding of the Primary PSAP once it begins receiving those 9-1-1 calls.

Discussion: When a citizen in any community is experiencing a crisis, some of which may have life or death implications, they dial 9-1-1 for help. As such, the most important service a local government can provide is the timely receipt and effective dispatch of 9-1-1 emergency calls. For life threatening emergencies, Emergency Communication Officers in Cary's PSAP intake and dispatch 90% of life-threatening calls for service in 1 minute and 30 seconds.

That performance is evaluated by staff from multiple departments, who continuously seek improvements because time is strongly correlated to saving lives and reducing property damage. For example, in sudden cardiac arrest emergencies, for every minute CPR and heart defibrillation is delayed, patient survivability rates decline by 10%. We see similar results for locating missing persons and fire damage to dwellings. The data and science are quite clear, that when public safety personnel can assess situations quickly and deploy the appropriate resources the outcome is almost always positive.

When viewed narrowly, this initiative is a typical contract for services. However, the implications for Cary are significantly greater. While this effort is another example of public safety leadership of all three parties, we encourage Council to recognize that our neighboring towns want the same high quality 9-1-1 services that Cary citizens and visitors enjoy. This peer recognition further establishes Cary's presence as a regional service provider and an organization that consistently delivers high-quality services that other communities strongly desire and which produce life changing results. PSAP services for Apex and Morrisville follow the progression of other regional efforts like the Western Wake Water Reclamation facility, utility system maintenance for Morrisville, 800 MHz radio system collaboration with Wake County, Go-Cary transit services, as well as Cary's reputation for amateur sports and entertainment venues.

RWECC will cease to provide emergency dispatch and communication services to Apex and Morrisville on March 15th, 2019. Cary, Apex and Morrisville have been making staffing and infrastructure improvements as identified in the Study in preparation for the Primary PSAP to begin receiving calls from Apex and Morrisville on March 5th, 2019. The execution of the ILA

is necessary to formally define the terms by which Cary shall provide emergency dispatch and communication services and outline how Apex and Morrisville shall compensate Cary for the provision of these services.

The remainder of this report will summarize the benefits, resource implications, ILA and fiscal impacts of the services agreement.

Community Benefits

An ILA for 9-1-1 services with Apex and Morrisville aligns with two policies of Imagine Cary Plan’s SERVE Chapter. The following table summarizes the analysis for Serve policies 8 and 12.

Chapter 8 - Serve Policies	Strategies/Compliance Statement
8 – Integrate Concepts of Resiliency and Adaption into Planning Practices	<ul style="list-style-type: none"> ▪ More effectively receive and send important information to the police and fire departments of the three jurisdictions. This will improve what public safety responders refer to as situational awareness, a critical component to first responder safety and overall emergency incident management. ▪ Improved situational awareness will allow greater flexibility for ECOs to assess and classify emergency calls
12 – Provide Exemplary and Timely Emergency Services	<ul style="list-style-type: none"> ▪ Using the collective resources of the municipalities, provide the ability to develop optimal risk-based Computer Aided Dispatch (CAD) resource recommendations that are currently not available; and ▪ Using collective resources this initiative will improve total response times for public safety resources by eliminating the call transfer time between Cary and Raleigh/Wake PSAPs. ▪ Police and Fire resources from each of the jurisdictions can operationally function as one entity.

With this acute level of emergency services communication and coordination, all agencies will benefit from a higher degree of resiliency for public safety resources. While 9-1-1 users in Apex and Morrisville will receive high quality PSAP services at a competitive cost, the opportunities for Cary to co-locate fire resources in Apex and Morrisville is greatly enhanced, as is the opportunity to share fire department supervisory staff during emergencies. The Police Departments are exploring similar operational opportunities but are more constrained by N.C. General Statutes than are the Fire Departments. Collectively, the benefits of a 9-1-1 services agreement with the towns of Apex and Morrisville is a win for all three parties.

These wins will result from Cary’s Primary PSAP having more direct contact with the public safety responders of the neighboring municipalities and the corresponding creation of a more streamlined path of communication among them. Two specific examples of these operational improvements include:

- 1) Reducing the deployment of duplicate fire resources for many parts of I-40 and I-540 and enhancing “quickest unit” response to these limited access highways and other adjoining border areas, irrespective of jurisdictional responsibility.
- 2) Based on current PSAP procedures, Apex and Morrisville police departments expect to benefit by a higher level of information sharing from the PSAP to officers in the field.

Resources

PSAP Activity

An estimate for the potential increase in the PSAP’s workload can be assessed utilizing the CAD events history for each municipality. The table below summarizes staff’s 3-year analysis for PSAP workload with an average of 179,014 calls per year and 18% average increase. However, because the Study did not quantify overlapping workload, staff believes this 18% increase is a generous net estimate because the PSAP already processes many calls for service from cellphone users in Apex or Morrisville that are directed to Cary by cell-phone routing and because the fire departments already participate in quickest-unit response to emergencies with Apex and Morrisville, which require call transfers to RWECC.

PSAP	Total CAD Events			Three-Year Average
	2016	2017	2018	
Apex	17,204	17,439	18,088	17,577
Cary	157,702	147,544	146,847	150,697
Morrisville	9,937	10,510	11,772	10,739
Total	184,843	175,493	176,707	179,014

Staffing

For PSAP staffing, the study offered 3 options. Options 1 and 2 suggested a staffing level of 27 ECOs and a third option utilized 32 ECOs. The Police Department selected Staffing Option 2, which closely aligns with its current staffing model and will require the Communications Center to maximize its current authorized staffing level of 26 Emergency Communications Officer (ECOs) which includes 4 over-hire ECOs plus 1 police officer over-hire to secure the 27 people. ECO supervisors would remain working supervisors, meaning they would intake 9-1-1 calls, dispatch public safety units and perform tactical communications with field units. So, in the short-term, we are not recommending any staff additions to the ECO group. To that end, we will also focus recruitment and retention efforts to maintain the current ECO staffing.

PSAP Positions	Current Staffing	Recommended Staffing
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Shift Supervisors	4	4
ECOs	18 plus 4 over-hires	23 plus 5 over-hires
Total PSAP Staff	26 w/over-hires	27 w/over-hires

This over-hire recruitment effort does not constitute a direct start-up cost for the Town, in fact utilizing over-hires is regularly used to manage staffing in critical service functions. However, it will require ongoing management focus to ensure ECOs can meet the workload demand. The Study did not contemplate call-handling or dispatch process changes or the impact the 3-1-1 group will have on the PSAP's non-emergency call-handling workload. Therefore, currently we are not requesting any new PSAP positions. Over the next 6-18 months, we will analyze the PSAP's performance and gain the experience needed to make any future staffing requests for the PSAP.

In addition to the operational staffing recommendations, the Study provided a more formal organizational structure for what a stand-alone 9-1-1 Department or group might represent and internally, staff discussed the overlapping functions of the 3-1-1 group and how these two groups might compliment or support each other in the future. We believe there is some long-term alignment for 3-1-1/9-1-1 functions and will continue to assess those opportunities.

Technology Equipment

Cary's share of capital and operating cost of connectivity and technology to start services is estimated at \$52,000 and \$4,500 respectively. However, substantial work is required by Cary staff to successfully implement the transition prior to the March 5th deadline. In order to provide services, the following work will be ongoing and will need to be completed:

- E911 - 911 phone lines additions, call routing changes, console reconfiguration at both 911 centers
- GIS – Mapping additions and changes for all PD and FD Districts
- Computer Aided Dispatch (CAD) – Licensing additions, multi-tenant reconfiguration, Cad to Cad and Cad to RMS setup between agencies, Apex and Morrisville field unit mobile data console reconfiguration and training
- Radio – Create new Talk-groups for radio users, PSAP console reconfiguration, Apex and Morrisville fire station alerting equipment installation, Cary, Apex and Morrisville field radios template creation, reprogramming and training
- Logging Recorder – Backend equipment installation and system reconfiguration at main and backup 911 center
- Networking and Security – Installation of third-party fiber circuits or agency owned fiber, VPN configurations, firewall changes, network account creation for all Apex and Morrisville Fire and Morrisville PD Staff

Other technology improvement opportunities revealed by the Study include fiber optic connectivity among the jurisdictions, CAD upgrade and fire station alerting enhancements. Like the staffing recommendations, we will continue to evaluate needs and opportunities for these recommendations and will incorporate any improvements into the normal budgeting process, invoke the ILA terms for cost-sharing and/or request N.C. 9-1-1 Fund reimbursements for future technology improvements.

Interlocal Agreement

The initial term of the ILA will be for 5 years with the option for an annual renewal for an additional 20 years. The agreement creates a Primary PSAP Advisory Committee made up of designees from each municipality for the purpose of fostering further cooperation on the ongoing operation and improvement of the Primary PSAP for the duration of the ILA.

The ILA obligates each municipality to incur the costs for the improvements necessary to integrate the Primary PSAP with the existing systems of Apex and Morrisville.

The ILA also obligates each municipality to bear responsibility for two types of operation costs: “Costs per Dispatch” and “Primary PSAP Improvement Costs.”

- Costs per Dispatch. Each municipality shall be responsible for the costs of all dispatches of Public Safety Responders from that municipality’s jurisdiction, including Dispatches to any unincorporated areas for which that Party may be contracted to provide service, said costs being determined via a formula that is detailed in Exhibit C of the ILA.

As an example, if a 9-1-1 call is received by the Primary PSAP that results in the Dispatch of Public Safety Responders from the Cary Police Department (CPD) and the Apex Fire Department (AFD), Cary would be responsible for paying the dispatch fee listed for CPD in Exhibit C and Apex would be responsible for the dispatch fee for APD listed in the same.

Cary shall invoice the other municipalities on a quarterly basis and the ILA calls for the fees to be recalculated from time to time. The Study recommended, and staff will conduct, a review of the funding methodology no less than annually to ensure the methodology satisfies the needs and expectations of each jurisdiction.

- Primary PSAP Improvement Costs. Each municipality will also be responsible for a proportionate cost of any improvement or software upgrade incurred by Cary to maintain operation of the Primary PSAP. These costs shall be allocated based on the average percentage of dispatches the Primary PSAP dispatches for each municipality over a rolling three-year period.

As an example, if the combined dispatches for Morrisville Police and Fire Public Safety Responders over the prior three years account for 7% of the total dispatches handled by the Primary PSAP, Morrisville would be responsible for 7% of the cost for a Primary PSAP Improvement made that year. Cary shall invoice the other municipalities on an annual basis for these costs.

The attached ILA has been reviewed by staff for each municipality. The Apex Town Council is scheduled to act on the ILA on January 3, 2019 and the Morrisville Town Council will consider the ILA during their January 8, 2019 meeting.

Conclusion/Summary

In summary, this 9-1-1 services opportunity is a Win-Win-Win for all parties. Building on Cary’s current capabilities and performance, serving as a regional PSAP solidifies Cary’s position as a desirable and willing regional partner or more aptly, a good neighbor that improves quality of life attributes (creating a safer community) for others. Operating under one communications center is the catalyst that will integrate public safety personnel who already work together to an even closer relationship, thereby improving situational awareness and reliability of all public safety resources. Moreover, while on its face the service benefits alone justify the ILA, the agreement is also fiscally responsible for all parties.

Fiscal Impact:

Estimated Revenue

As outlined in the ILA discussion, the Study produced a funding methodology, so each party can plan for budgetary impacts accordingly. The methodology has two focus areas: 1) Cost per Dispatch (annual operating costs) and 2) Primary PSAP Improvement Costs for Start-up (Capital, Hard and Soft Technology Costs). The following table summarizes annual operating revenue estimates generated by providing 9-1-1 services for Fire and Law Enforcement activity for Apex and Morrisville.

	FY19 (Mar-Jun) Revenue Estimate	FY20 Revenue Estimate
Apex	\$86,000	\$271,500
Morrisville	\$78,700	\$252,500
Total Revenue	\$164,700	\$524,000

Technology Capital and Operating Costs

The Study identified several capital and operating start-up costs for Cary. The capital improvements were hardware configurations and programming, as well as additions to Cary’s IT infrastructure. The capital technology costs are \$51,480, with the most significant expenses associated with the back-up center recorder, virtual private network reconfigurations and the CAD reconfiguration and switches. The initial operating costs for those investments are \$4,570. for a total start-up investment of \$56,050.

To date, the IT Department has absorbed these initial costs; however, staff has requested from the N.C. 9-1-1 Board and we anticipate the Board will authorize full reimbursement from Cary’s 9-1-1 Fund.

Operating Impact

For Fiscal Year 2019, staff projects revenue of \$164,700. and ongoing equipment expenses of \$4,570. Staff anticipates N.C. 9-1-1 Board authorization to reimburse the Town for technology improvements and associated operating expenses up to \$56,050. from Cary's 9-1-1 Fund.

For Fiscal Year 2020, staff projects revenue of \$524,000. and ongoing equipment expenses of \$13,843.

Although not detailed here, revenue will be allocated to existing PSAP staffing expenses and ongoing equipment expenses.

Based on current workload projections and several mitigating initiatives, staff anticipates no staff additions through Fiscal Year 2020.

Next Steps:

1. Council approve this ILA.
2. Staff from each municipality will complete any remaining pre-operability improvements.
3. Primary PSAP will begin offering emergency dispatch and communication services to Apex and Morrisville on March 5th, 2019.

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