

# **FEASIBILITY OF ESTABLISHING A REGIONAL COMMUNICATIONS CENTER FOR THE TOWNS OF DOVER, HOLLISTON, MEDFIELD, MEDWAY, MILLIS, & SHERBORN**

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**McCORMACK GRADUATE SCHOOL OF POLICY AND GLOBAL STUDIES**

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## Executive Summary

The Towns of Dover, Holliston, Medfield, Medway, Millis, and Sherborn requested the State 911 Department to conduct a study of the feasibility of establishing a regional emergency communications center (RECC) for all of the identified municipalities, or to identify an existing RECC that they may join. The State 911 Department authorized the Edward J. Collins, Jr. Center for Public Management to conduct the Study as part of its inter-governmental services agreement (ISA) to aid the State 911 Department in its PSAP regionalization and RECC Development efforts.

The six municipalities are suited quite well to establish a Regional Emergency Communication Center (RECC), or to join a RECC of their choosing. The towns are similar in population, call volume, and are all focused on providing the best level of services for the municipalities that they serve. Currently there is no public safety facility capable of having the needed space and infrastructure needed for a modern emergency communication center to provide call-taking and dispatching for the six municipalities. The Study participant’s metrics that impact on the demand for emergency call-taking and dispatching services are provided in the following chart.

Municipality	Population (2020)	911 Calls (2020)
Dover	5,923	891
Holliston	14,996	2,108
Medfield	12,799	2,106
Medway	13,115	2,512
Millis	8,460	1,578
Sherborn	4,401	1,425
<b>Total</b>	<b>59,694</b>	<b>10,620</b>

Interviews revealed that there was a willingness of the public safety leaders to regionalize their dispatch services to provide for more effective 911 dispatch services. Interviewees felt that the key outcomes of regionalization would provide for:

Interviews Regarding Key Outcomes of a RECC	
<ul style="list-style-type: none"> <li>• Consistency/consistent staffing</li> <li>• Efficiency***<sup>1</sup></li> <li>• More Professional dispatchers***</li> <li>• Cost savings</li> <li>• Free up Lt. and Sgt.</li> <li>• Personnel more efficient</li> <li>• Pooling resources</li> <li>• Free up money</li> <li>• 911 Funding</li> <li>• Better situational awareness</li> <li>• Better mutual aid</li> <li>• More effective/qualified dispatcher –</li> </ul>	<ul style="list-style-type: none"> <li>• RECC – stronger policies (QA and QI)*</li> <li>• Better organizational structure</li> <li>• Greater Surge capability***</li> <li>• EMD improvements</li> <li>• Better radio equipment and overall technology**</li> <li>• Highly trained dispatchers</li> <li>• Accountability of staff/dispatchers</li> <li>• Ability to provide analytical data</li> <li>• Relieve police of dispatch duties</li> <li>• Better recruitment and retention</li> </ul>

<sup>1</sup> Note: a \* indicates each additional time this response was given.

Interviews Regarding Key Outcomes of a RECC	
experience level**	
<ul style="list-style-type: none"> <li>• Consolidating overhead – some savings</li> <li>• Shift Supervision</li> </ul>	

The Towns of Dover, Holliston, Medfield, Medway, Millis, and Sherborn are quite well-suited to establish or join a RECC. There is a recognition of the benefits of joining a RECC, however there is no one site that is capable of accommodating a RECC at this time. All operate with one dispatcher on duty per shift, creating great difficulties for major events and emergency medical calls. There are three RECCs in the region which could provide these services. Each municipality should make their own decision regarding which RECC they should join. Each RECC will have a different timetable as to when each town could transition into existing RECC membership. Based upon the data collected and the analysis conducted, it was determined that it is feasible to regionalize the given municipalities into a single RECC.

The State 911 Department is charged with coordinating and effecting the implementation of enhanced 911 service and administering such service in the Commonwealth. In fulfilling this responsibility, the State 911 Department provides public safety answering points (PSAPs) in Massachusetts that serve as the first point of reception of a 911 call with call processing equipment, database, network, technical support services, training for personnel handling the calls at the PSAPs, and with funding to support the operation of the PSAPs through the administration of an extensive grant program.

The equipment needed for this transition is an allowable cost item under the State 911 Department Regional Developmental Grant Program.

### Cost-Benefit Analysis Summary

The table below documents the savings that are anticipated from the economy of scale of establishing a RECC, a cost-sharing effort between all six municipalities, as well as a grant funding effort for recurring costs and a separate effort through development grants for capital costs/equipment to establish a RECC and to replace outdated equipment.

Municipality	Non-Recurring Capital Savings	Recurring Cost Savings	Total Savings
<b>Dover</b>	\$783,333.33	\$252,607.30	\$1,035,940.63
<b>Holliston</b>	\$150,000.00	\$159,831.36	\$309,831.36
<b>Medfield</b>	\$150,000.00	\$242,960.80	\$392,960.62
<b>Medway</b>	\$211,000.00	\$126,486.89	\$337,486.25
<b>Millis</b>	\$150,000.00	\$203,185.26	\$353,185.26
<b>Sherborn</b>	\$211,000.00	\$257,165.21	\$468,165.21
<b>TOTAL</b>	<b>\$1,655,333.33</b>	<b>\$1,242,236.82</b>	<b>\$2,897,569.33</b>

## Recommendations

- It is feasible to regionalize Dover, Holliston, Medfield, Medway, Millis, and Sherborn into an existing RECC that has the capacity to add each municipality to their Center's membership. Three regional emergency communications centers – Holbrook RECC, Metacomet RECC, and Southeast Massachusetts RECC (SEMRECC) – have the capacity and the desire to add municipalities;
- Develop an outreach program to all the municipalities discussed to inform them of the enhanced capability of the RECC
  - Through a well-planned outreach effort, each municipality can keep residents up-to-date and fully informed of the timeline for the transition into Holbrook RECC, Metacomet RECC, and SEMRECC, the rationale for change, and the benefits to them in the form of enhanced services;
  - In the outreach plan, there is a need to encourage municipality members to utilize the 911 call number for all emergency calls rather than use any of the administrative lines;
- Develop a plan to assess the administrative and security needs for each of the police and fire departments in order to ensure that contact with walk in traffic is being responsive to the needs of the municipality and to ensure that the cell block area is being monitored for prisoner safety;
- Develop a Transition Training Plan (TTP) to incorporate all elements of required dispatch training as required by State 911, CAD/RMS, Dispatch Protocols, EMD and municipality knowledge;
- Utilize the insight of the dispatchers and public safety personnel to develop excellence in operational guidelines/practices for the citizens of both municipalities and their public safety services; and
- Assist the RECC that each municipality chooses to provide the emergency communications services for the State 911 Development Grant to provide the necessary equipment and services for the appropriate transition.

## Benefits of Regionalization

Relying upon interviews that were conducted in 42 municipalities in Massachusetts with 198 police and fire chiefs, their command personnel, town managers and administrators, and dispatch personnel, the most cited benefits of regionalization of dispatch services were as follows:

- Standardized/use of the same dispatch protocols;
- Resources – more dispatch personnel for major events and increased surge of 911 calls;
- Cost savings, financial support – state contributions to center development and recurring costs;
- Enhanced mutual aid; and
- More effective call-taking and dispatching capability for the public and emergency response.

Note: Two of the communities have decided to join existing regional emergency communications centers. They are:

- Sherborn has agreed to join the Holbrook RECC
- Millis has agreed to join SEMRECC

## Introduction

The Towns of Dover, Holliston, Medfield, Medway, Millis, and Sherborn requested the State 911 Department to conduct a study of the feasibility of establishing a regional emergency communications center (RECC) for all of the municipalities or to identify a RECC that they may join. The State 911 Department authorized the Edward J. Collins, Jr. Center for Public Management (Collins Center) to conduct a study as part of its inter-governmental services agreement (ISA) to aid the State 911 Department in its PSAP regionalization and RECC Development efforts.

The study included investigating the technical, operational, and cost requirements to establish a RECC, the potential locations of the RECC (including an existing RECC), and the governance options for each municipality. This includes, but is not limited to, the cost of set up, technology requirements, identification of a potential site, cost of operation, and adherence to state and national standards for dispatch centers.

The Collins Center was established in 2008 in the McCormack Graduate School of Policy and Global Studies to further the public service mission of the University of Massachusetts Boston and assist municipalities in implementing best practices, often using data analytics. The Center provides technical assistance to municipalities and state agencies on all aspects of public management.

## Methodology

The Collins Center adhered to the following methodology in collecting and analyzing data and information from the existing 911 PSAP services at the Dover, Holliston, Medfield, Medway, Millis, and Sherborn public safety facilities in order to assess the feasibility of developing a RECC and also gathered information on existing RECCs that may have space and capability to add the number of municipalities in this study.

Methods for collecting information relied on interviews, on-site assessments, and document review. The process was as follows:

- Kick-Off meeting with the principals from all of the municipalities;
- On-site visits which included interviews with police and fire chiefs and other designated personnel;
- Collection of relevant data from each PSAP, including
  - Equipment used;
  - Staffing levels;
  - Examine physical plant and layout to determine capacity/ability to expand;
  - Research/planning;
  - Current dispatch budgetary expenses;
  - Call volume;
  - Additional administrative duties performed by dispatch personnel;
  - Analysis and preparation of the report; and
- Review of draft report with the Police and Fire Chiefs, and the Town Administrator/Manager of each municipality.

## Current Dispatch Environment

Municipal metrics that impact on the demand for emergency call-taking and dispatching services are provided in the following chart.

Municipality	Population (2020)	911 Calls (2020)	Calls for Service
Dover	5,923	891	19,215
Holliston	14,996	2,108	18,590
Medfield	12,799	2,106	9,893
Medway	13,115	2,512	16,082
Millis	8,460	1,578	17,025
Sherborn	4,401	1,425	14,453
<b>Total</b>	<b>59,694</b>	<b>10,620</b>	<b>95,258</b>

### Town of Dover, Massachusetts

The Dover Public Safety Answering Point (PSAP) is located in the Dover Police Department at 3 Walpole Street, Dover, MA 02030 and overseen by the Dover Police Department. The dispatch personnel provide call-taking and dispatching for all emergency calls within the Town of Dover.

The Public Safety Dispatch Center is equipped with two console positions and both are 911 capable.

The Center is staffed by sworn police officers. There is one police officer/dispatcher on duty for each shift. The Dover Dispatch Center budget for FY2022 is estimated at \$295,000.00. The Dover metrics that impact their call-taking and dispatching services are as follows:

Metrics (2020)	#
Population	5,923
Total 911 Call Volume	891
Total Calls for Service	19,215

Technology data was collected to identify the equipment that was currently being used and its condition by the Dover Dispatch Center and the Dover Police and Fire Departments for their radio systems, dispatch consoles, telephone systems, and software used for Computer Aided Dispatch (CAD) and Records Management System (RMS). Below is a chart that depicts the information collected. The technology information collected was used to identify what equipment would need to be replaced or enhanced to achieve interoperability between the RECC and the public safety radio systems.

Technology Elements	Notes/Comments
Radio System	
Manufacturer	Motorola Solutions Inc. – MC5500

Technology Elements	Notes/Comments
Frequencies	Police: 472.312.50 Fire:
Age and Conditions	System: 20+ years old – Fair to poor condition
Interoperability Town wide Regional	Yes
System Coverage (Gaps)	Gaps around numerous street areas including Dedham Street, Yorkshire Road, County Street, etc.
Tower Sites	Snow's Hill (Pine Street)
Fiber	Copper
Number, age and make of Mobiles	PD: 16 APX 6000 - New FD:
Number, age and make of portables	PD: 22 – APX 6000 FD :
Information Technology CAD/RMS	Central Square - IMC
Dispatch Area Number of positions Number of 911 positions Administrative phone system Town wide fiber	2 2 Yes No
Radio system Maintenance Provider	CYBERCOMM

## Town of Holliston, Massachusetts

The Holliston Public Safety Answering Point (PSAP) is in the Holliston Police Department located at 550 Washington Street, Holliston, MA 01746 and overseen by the Holliston Police Department. The dispatch personnel provide 911 call-taking and dispatching for the Police Department. All Fire and EMS related calls are transferred to the Fire Department who provide dispatching services, including Emergency Medical Dispatch (EMD).

The Public Safety Answering Point (PSAP) at the Police Department is equipped with two console positions and both are 911 capable. The Center is staffed by five full-time and three to five part-time dispatchers. There is one dispatcher on duty for each shift.

The Holliston Dispatch Center Budget for FY2022 is \$261,421.00. The Holliston metrics that impact their 911 call-taking and dispatching services are as follows:

Metrics (2020)	#
Population	14,996
Total 911 Call Volume	2,108
Calls for Service	18,590



A limited secondary Public Safety Answering Point (PSAP) is in the Holliston Fire Department, located at 59 Central Street, Holliston, MA 01746 and overseen by the Holliston Fire Department. The dispatch personnel provide call-taking and dispatching for all fire and EMS calls within the Town of Holliston. They also provide 24-hour call-forwarding for Animal Control, and after-hours dispatching for DPW.

The limited secondary PSAP is equipped with three console positions with one 911 capable. The Center is staffed by four full-time and seven part-time or per diem dispatchers with one dispatcher on duty for each shift. The budget for FY2022 is \$263,925.00. The Center provided dispatch services for 1,676 incidents in 2021.

Technology data was collected to identify the equipment that was currently being used and its condition by the Holliston Dispatch Center and the Holliston Police and Fire Departments for their radio systems, dispatch consoles, telephone systems, and software used for computer aided dispatch (CAD) and records management system (RMS). Below is a chart that depicts the information collected. The technology information collected was used to identify what equipment would need to be replaced or enhanced to achieve interoperability between the RECC and the public safety radio systems.

Technology Elements	Notes/Comments
Radio System	
Manufacturer	Motorola Solutions Inc.
Frequencies	PD 471.337, 474.337 FD 470.475, 473,475
Age and Conditions	PD System: upgrade in 2021 – Excellent condition FD System upgraded in 2017- Good condition
Interoperability Town wide Regional	Yes Yes
System Coverage (Gaps)	None
Tower Sites	PD Five tower sites. Hopping Brook, Jennings, Fairview, Mellon, and Police Station FD Hopping Brook, Jennings, Fairview, Mellon, and Fire Station
Fiber	Yes Verizon – Town IT Director
Number, age and make of Mobiles	PD 16 Mobiles (purchased on every new vehicle) FD: 10 Motorola XTL 2007
Number, age and make of portables	PD: 38 – APX 4000 – Purchased in 2013 FD : 40 Motorola XTS (2007) and 3 Motorola HT1250 (2002)
Information Technology CAD/RMS	PD: Central Square – IMC FD: ESO Firehouse EMS: Beyond Lucent Technologies Mediview
Dispatch Area Number of positions Number of 911 positions Administrative phone system	PD: 3 – One back up FD: 3 – two back up 2 PD: Valley Communications (new) FD: Lucent Partner 18D series (2002)

Technology Elements	Notes/Comments
Town wide fiber	Yes Verizon FIOS fiber installed, but currently using copper
Radio system Maintenance Provider	Cyber Communications Inc.

## Town of Medfield, Massachusetts

The Medfield Public Safety Answering Point (PSAP) is in the Medfield Police Department located at 112 North Street, Medfield, MA 02052 and overseen by the Medfield Police Department. The dispatch personnel provide call-taking and dispatching for all emergency calls within the Town of Medfield.

The Public Safety Dispatch Center is equipped with two console positions, both are 911 capable.

The Center is staffed by four full-time and two part-time dispatchers. There is one dispatcher on duty for each shift. The Medfield Dispatch Center Budget for FY2022 is \$320,804.23. The Medfield metrics that impact their call-taking and dispatching services are as follows:

Metrics (2020)	#
Population	12,799
Total 911 Call Volume	2,106
Total Calls for Service	9,893

Technology data was collected to identify the equipment that was currently being used and its condition by the Medfield Dispatch Center and the Medfield Police and Fire Departments for their radio systems, dispatch consoles, telephone systems, and software used for computer aided dispatch (CAD) and records management system (RMS). Below is a chart that depicts the information collected. The technology information collected was used to identify what equipment would need to be replace or enhanced to achieve interoperability between the RECC and the public safety radio systems.

Technology Elements	Notes/Comments
Radio System	Motorola MCC 5500
Manufacturer	Motorola
Frequencies	PD:471.70000 FD:482.47500
Age and Conditions	Age varies from different parts of the system. Portables are new in 2021. Good overall
Interoperability Town wide Regional	Yes - able to talk to all Town departments Yes- able to talk to other agencies
System Coverage (Gaps)	Portables have gaps in a few locations. Mobile has full coverage
Tower Sites	State Hospital, Mt Nebo, Noon Hill
Fiber	Single Mode fiber between all Municipal Buildings
Number, age and make of mobiles	15 Motorola/Kenwood Age varies

Technology Elements	Notes/Comments
Number, age and make of portables	25, New Motorola Apx6000
Information Technology CAD/RMS	IMC
Dispatch Number of positions Number of 911 positions Administrative phone system Town wide fiber	2 2 Avaya Single Mode Fiber between all Municipal Buildings
Radio system Maintenance Provider	Motorola (CyberCom)

### Town of Medway, Massachusetts

The Medway Public Safety Answering Point (PSAP) is in the Medway Police Department located at 315 Village Street, Medway, MA 02053 and overseen by the Medway Police Department. The dispatch personnel provide call-taking and dispatching for all emergency calls within the Town of Millis.

The Public Safety Dispatch Center is equipped with two console positions, both are 911 capable.

The Center is staffed by five full-time dispatchers. There is one dispatcher on duty for each shift and two on the day shift, Monday through Friday. The Medway Dispatch Center Budget for FY2022 is \$340,018.64. The Medway metrics that impact their call-taking and dispatching services are as follows:

Metrics (2020)	#
Population	13,115
Total 911 Call Volume	2,512
Total Calls for Service	16,082

Medway also advised that they anticipate a period of growth in the near future, that include the following developments:

- Glen Brook – 100 units (apartment complex) will be 100% affordable. Half of the units are for families and half are for seniors.
- 39 Main Street – 200 units (multi-story/multi building apartment complex) will be 25% affordable. No age restrictions.
- Timber Crest – approximately 175 single family homes, will be 25% affordable. No age restrictions.
- Salmon Senior Living Municipality – (mix of memory care, assisted living, skilled nursing and over 55 cottages) 100% seniors. A total of 225 units.
- Oak Grove – Large piece of land near Milford will eventually be mixed use, industrial, residential, and possibly some commercial. Town is in the process of purchasing the land and it is anticipated to take up to 10 years before a significant build takes place.

Technology data was collected to identify the equipment that was currently being used and its condition by the Medway Dispatch Center and the Medway Police and Fire Departments for their radio systems, dispatch consoles, telephone systems, and software used for computer aided dispatch (CAD) and records management system (RMS). Below is a chart that depicts the information collected. The technology information collected was used to identify what equipment would need to be replaced or enhanced to achieve interoperability between the RECC and the public safety radio systems.

Technology Elements	Notes/Comments
Radio System	
Manufacturer	Motorola MCC-5500 (Reached End of Life)
Frequencies	PD: 482.325 DPL 025 Both operate analog and P25 with FD: 482.625 DPL 172 non-compliant encryption
Age and Conditions	Console positions 1&2 are 11 yrs old, position 3 is 8 yrs old. Repeaters and voting system are approximately 4 yrs old. Consoles are due for replacement and no longer supported.
Interoperability municipality wide Regional	Our system has dedicated radios for police, fire, and the DPW. Also we have separate police and fire mutual aid radios covering many towns, regional radios for Norfolk County Control and BAPER. Radio to speak with MEMA and DHS both UHF & VHF. All radios are backed up elsewhere in the system with the exception of MEMA. All radios and channels can be cross-patched.
System Coverage (Gaps)	North-west corner of town (Fisher St Area) and the North-east corner of town (Causeway St Area).
Tower Sites	113 Main St (Crown Castle Cell Site) & 13 Highland St
Fiber	Town owned fiber connects PD to both sites
Number, age and make of mobiles	16 mobile radios, Motorola XTL2500 or APX6500 varying in age from 11 yrs to 1 yr old.
Number, age and make of portables	35 Motorola APX4000 3 yrs old
Information Technology CAD/RMS	Pamet (conversion in process)
Dispatch Number of positions Number of 911 positions Administrative phone system Town wide fiber	Two radio console positions in dispatch, one position in the EOC/Classroom. Two 911 positions in dispatch. Two administrative phones in dispatch, one at the EOC/Classroom position. Town wide fiber to the building.
Radio system Maintenance Provider	Cybercomm, Bridgewater, MA.

## Town of Millis, Massachusetts

The Millis Public Safety Answering Point (PSAP) is in the Millis Police Department located at 1003 Main Street and overseen by the Millis Police Department. The dispatch personnel provide call-taking and dispatching for all emergency calls within the Town of Millis.

The Public Safety Dispatch Center is equipped with two console positions, both are 911 capable. The Center is staffed by four full-time and one part-time dispatchers. There is one dispatcher on duty for each shift. The Millis Dispatch Center Budget for FY2022 is \$295,927.68. The Millis metrics that impact their call-taking and dispatching services are as follows:

Metrics (2020)	#
Population	8,460
Total 911 Call Volume	1,578
Total Calls for Service	17,025

Technology data was collected to identify the equipment that was currently being used and its condition by the Millis Dispatch Center and the Millis Police and Fire Departments for their radio systems, dispatch consoles, telephone systems, and software used for computer aided dispatch (CAD) and records management system (RMS). Below is a chart that depicts the information collected. The technology information collected was used to identify what equipment would need to be replaced or enhanced to achieve interoperability between the RECC and the public safety radio systems.

Technology Elements	Notes/Comments
Radio System	
Manufacturer	Motorola Solutions Inc.
Frequencies	Police: 484.200 Fire: 483.700
Age and Conditions	System: 3 years old – Excellent condition
Interoperability	
Town wide	Yes
Regional	Yes
System Coverage (Gaps)	Gap around the Norfolk town line
Tower Sites	Two water towers and one at the Police Headquarters
Fiber	
Number, age and make of Mobiles	PD: 10 Mobiles – 3 years old FD:
Number, age and make of portables	PD: 22 – APX 6000 FD :
Information Technology CAD/RMS	Central Square - IMC
Dispatch Area	

Technology Elements	Notes/Comments
Number of positions	2
Number of 911 positions	2
Administrative phone system	Voice over IP
Town wide fiber	Yes
Radio system Maintenance Provider	CyberComm

## Town of Sherborn, Massachusetts

The Sherborn Public Safety Answering Point (PSAP) is overseen by the Sherborn Police Department. The dispatch personnel provide call-taking and dispatching for all emergency calls within the Town of Sherborn. The Public Safety Dispatch Center is equipped with two console positions in a room that is quite restricted and is not capable of expansion to add additional consoles. The Center is staffed by three civilian dispatchers that are budgeted but not filled. The dispatcher duties are being currently performed by police officers. There is one dispatcher on duty for each shift. The Sherborn Dispatch Budget for FY2022 is \$361,095.00. The Sherborn metrics that impact their call-taking and dispatching services are as follows:

Metrics (2020)	#
Population	4,401
Total 911 Call Volume	1,425
Total Calls for Service	14,453

Technology data was collected to identify the equipment that was currently being used and its condition by the Sherborn Dispatch Center and the Sherborn Police and Fire Departments for their radio systems, dispatch consoles, telephone systems, and software used for computer aided dispatch (CAD) and records management system (RMS). Below is a chart that depicts the information collected. The technology information collected was used to identify what equipment would need to be replaced or enhanced to achieve interoperability between the RECC and the public safety radio systems.

Technology Elements	Notes/Comments
Radio System	
Manufacturer	Motorola Solutions Inc.
Frequencies	Police: 471,63750 Fire: 483.08750
Age and Conditions	System: 10 years old – Good condition
Interoperability Town wide Regional	Police, Fire and DPW All surrounding towns, Police and Fire BAPERN
System Coverage (Gaps)	Gap around Brook Street, Western Ave. from Washington Street to Hollis Street. Only Analog
Tower Sites	Hunting Lane and Lake Street
Fiber	

Technology Elements	Notes/Comments
Number, age and make of Mobiles	5 Motorola XTL 2500 – 8 years old 3 Motorola APX 6500 – 5 years old
Number, age and make of portables	16 – APX 4000 ( seven – 3 years old and nine -2 years old)
Information Technology CAD/RMS	Central Square - IMC
Dispatch Area	
Number of positions	2
Number of 911 positions	2
Administrative phone system	Shortel Digital Comcast
Town wide fiber	
Radio system Maintenance Provider	Cyber Comm. Inc.

## Administrative Duties

The Police Chiefs of Dover, Holliston, Medfield, Medway, Millis, and Sherborn provide a list of administrative or ancillary functions that the dispatchers perform for police, fire, and other municipal departments. This is quite common with all PSAPs and some RECCs. A recommendation for all municipalities that anticipate joining or developing a RECC is that they assess the list and decide which tasks they will keep at their police or fire departments and which they request that it be undertaken by the RECC.

In reviewing the tasks, some clearly belong in the RECC and could possibly be assigned as such. For those functions that would be transferred to the police or fire departments, consideration should be given to placing those functions in an area that is most effective and efficient for the department and the municipality. For example, one municipality that joined a RECC moved the records section to the front desk area where the dispatch area had been, as they identified that the purpose of most of the people who came to the public window was to request a copy of a police report. The municipality was notified of the hours of operation for the records section. Another municipality put their burn permit process online to help facilitate a more efficient system that did not take any dispatcher time. It is important to note that decision to keep or to transfer these functions will be the policy for the RECC for the future, including when other municipalities join the RECC.

- Logging and filing 209A's;
- Logging and filing 258E's;
- Logging and filing warrants;
- Logging and filing no trespass orders;
- Booking and filling details (both in town and out of town);
- Filling shifts on callouts;
- Burning permits;
- MPD sign board;
- Pistol permits;
- Solicitor check-ins;

- Lost and found;
- Enter officer's citations;
- Monitoring town cameras;
- Prisoner checks and cell monitoring;
- Medicine and sharps bin maintenance;
- Walk-in traffic;
- Assist with town directions;
- TRX System management;
- Animal control;
- Teaching college interns
- Checking police training room and assist with scheduling;
- Provide keys to meeting rooms at town hall and other town buildings; and
- Assist with town permit system, forms, and fingerprints.

## Interviews

Interviews were conducted with the Dover, Holliston, Medfield, Medway, Millis, and Sherborn public safety chiefs, and certain members of their staff. The interviews provided detailed information regarding their insight of their communication center, as well as the issues that may be encountered from a regional dispatch center in general. The interviewees also provided recommendations for an effective transition process, should the municipalities choose to join or develop a RECC. All the public safety chiefs exhibited a strong focus on the municipalities that they serve on providing high-quality emergency communication services to the residents of their respective municipalities, and on their public safety personnel. All were knowledgeable of the needs of their towns. All the chiefs expressed a strong desire to ensure a smooth transition into a RECC should Dover, Holliston Medfield, Medway, Millis, and Sherborn make the decision to develop one. A summary of the information gathered from the interviews is as follows.

The **strengths or potential benefits** of regionalization of emergency call-taking and dispatching services include:

- Consistency/consistent staffing;
- Efficiency<sup>\*\*\*2</sup>;
- More Professional dispatchers<sup>\*\*\*</sup>;
- Cost savings;
- Free up lieutenant and sergeant;
- Personnel more efficient;
- Pooling resources;
- Free up money;
- 911 funding;
- Better situational awareness;
- Better mutual aid;
- More effective/qualified dispatcher – experience level<sup>\*\*</sup>;
- Consolidating overhead – some savings;

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<sup>2</sup> Note: a \* indicates each additional time this response was given.



- RECC – stronger policies (QA and QI)\*;
- Better organizational structure;
- Greater surge capability\*\*\*;
- EMD improvements;
- Better radio equipment and overall technology\*\*;
- Highly trained dispatchers;
- Accountability of staff/dispatchers;
- Ability to provide analytical data;
- Relieve police of dispatch duties;
- Shift supervision; and
- Better recruitment and retention.

The **weaknesses or concerns** of regionalization include:

- Resistance from town residents;
- Cost;
- Walk-ins\*\*;
- Lack of local knowledge\*\*\*;
- Concern about losing employees;
- Internal morale with current dispatchers;
- Lose ownership/loss of municipality control;
- Lose some municipality connection;
- Lose municipality knowledge;
- Some storms tax staffing;
- Change the way of doing things – plain language;
- Issue when systems go down;
- Not sure of cost savings;
- Looking for a RECC that can do multiple tasks;
- Unstaffed stations;
- Learning new protocols;
- Dealing with municipality perception of loss of service; and
- Coordination with other fire districts.

Interviewees identified certain areas and made **recommendations important for successful integration** of PSAPs into a regional center. They are:

- Need to run PSAP and RECC concurrently to ensure that calls are not dropped;
- Need for communications – transparency;
- Listen to dispatchers;
- Need consistency;
- Standardized (SOGs/policy and procedures)\*\*;
- Proper planning for transition;
- Testing systems;
- Work through problems;

- More effective connection between dispatchers and officers;
- Examine partners (fit who you are joining)\*;
- Strong integration between police and fire departments and dispatch center;
- Adequate staffing and supervision;
- Dispatcher training -Ride a longs and continued education;
- Sell to town citizens;
- Helping citizens – focus on municipality;
- Learn more of fire service needs;
- Need another way to correct poor performance;
- Treat all municipalities equally; and
- Getting buy in with police and fire departments.

## Leadership

Leadership is a critical factor in the successful consolidation or outsourcing of any services important to the mission of public safety agencies. This requires the skills to work with their staff and the municipality to manage the change process. During the interviews, the Project Team found the public safety chiefs in Dover, Holliston, Medfield, Medway, Millis, and Sherborn have the necessary leadership skills and a willingness to successfully undertake this transition. They have recognized the benefits of such a transition and have offered recommendations to improve the prospects of the transition process. Their key focus was always on the mission of their departments and the needs of the municipality.

## Staffing Analysis

### Staffing Requirements

Three key documents were utilized for guidance in developing staffing recommendations for the development of a RECC for the Towns of Dover, Holliston, Medfield, Medway, Millis, and Sherborn. A Summary of each of the relevant documents that were utilized to develop the staffing recommendations for the Regional Emergency Communications Center are as follows:

*APCO Project RETAINS Research Report, August 2005, University of Denver Research Institute, Denver, Colorado.*

The APCO study was conceived and conducted in response to concerns that were brought forth to the Association of Public Safety Communications Officials, International (APCO). Communications center manager and staff expressed concerns about the appropriate number of staff needed to serve the public's needs and expectations for emergency services and they wanted information about practices they could use to increase employee retention. Although such centers are often equated with 911 emergency call request and services, 911 emergency calls are often only a portion of the workload. This study looked at all aspects of staffing and retention in public safety communications centers, not just the 911 service aspects in those centers. This study was completed in two phases (Study I and Study II).

Question: *What factors do centers use to determine appropriate staffing levels?*

The data indicate the processes public safety communications centers have used for determining staffing levels have been primarily reactive rather than proactive. There was no process for determining appropriate staffing levels in public safety communications centers that was widely used or accepted.

The data also indicate staffing decisions are often based on considerations other than needs, as defined by the safety or personnel that are dispatched, or specific measures related to coverage, workload, or service quality indicators. Two-thirds of the managers in Study I indicated staffing allocations were based on budget and 44% indicated the number of consoles in the center determined their staffing levels. When the questions were reframed in Study II to ask managers specifically about formulas they used, 81% indicated they used a formula but only 38% of them indicated they made an adjustment for employee availability. Although Erlang calculations are often referred to as the most useful formula for determining appropriate staffing levels, only 15% of the large centers reported using it.

In *NFPA 1221: Standard for Installation, Maintenance, Use of Emergency Services Communications Services* states in 7.3.2, "Communications centers that provide emergency dispatching protocols shall have at least two telecommunicators on duty at all times." In addition, NFPA also provides guidance on Emergency Medical Dispatch (EMD) functions that will also be governed by the State 911 Department standards in 2011. Regulation 560 CMR 5.00 establishes certification requirements for Enhanced 911 telecommunicators governing Emergency Medical Dispatch and Establishes 911 call Handling Procedures.

Staffing by only one dispatcher creates several significant operational concerns in addition to those cited above regarding NFPA 1221 and to some degree the new EMD requirements. Those concerns are relative to a single dispatcher's ability to provide pre-arrival instructions and service to responders working in the field and, at the same time, receiving other 911 and other administrative calls during this important period. A multiple dispatcher RECC does provide for a greater capability for handling large-scale critical incidents at the same time provide an economy of scale.

NFPA Standard 1221 Section 6.4.2 specifies that "Ninety-five percent of alarms shall be answered within 15 seconds, and 99% of alarms shall be answered within 40 seconds." Section 6.4.3 specifies that, "[95%] of emergency dispatching shall be completed within 60 seconds." A RECC would have greater capacity to manage critical incident surge as well as the unique requirements of EMD.

*Massachusetts Regulations through 560 CMR 5.0* provides the following Emergency Medical Dispatch Requirements:

- By July 1, 2012, PSAPs and RECCs were required to provide EMD either through certified EMD dispatchers at the PSAP/RECC or through a certified EMD resource;
- The PSAP/RECC or certified EMD resource must use a single EMD Protocol Reference system (EMDPRS) on every request for medical assistance; have policies and procedures for use of EMDPRS and establish a continuous quality assurance (QA) program; and
- In order to act as a certified EMD dispatcher for a PSAP/RECC- (the dispatcher) must be a certified E911 telecommunicator, obtain and maintain CPR certification, and obtain and maintain EMD certification.

The regulations also provide direction for:

- Certified EMD resource;
- Call handling procedures; and
- Recordkeeping.

### Staffing Analysis and Recommendations

The Project RETAINS Research Report provided common practices across the country that is useful to consider for the staffing levels for the Dover, Holliston, Medfield, Medway, Millis, and Sherborn Regional Emergency Communications Center (RECC). Below are data from 153 separate 911 PSAP centers relative to staffing and call volume. This data is then compared to what is proposed in the proposed RECC.

Center Category	Average	Median	Dover, Holliston, Medfield, Medway, Millis, & Sherborn RECC
# of Personnel	18	12	21
# of Agencies	12	6	12
Population	79,000	35,000	53,324
Call Volume	238,000	82,000	95,258

The RETAINS Report noted 75% of the centers surveyed handled fewer than 10,000 calls per employee, with an average of 6,500 calls per employee. The Report also provided that as call volume per employee increased, so did employee turnover. They further looked at the relationship between annual call volume per employee and the staffing situation reported by manager. On average, employees handled just over 5,200 calls per year in centers where managers indicated their center was fully staffed at this time (all authorized positions were filled). Employees in centers that were described by managers as chronically understaffed handled about twice as many calls at 11,200 per year. The average for this RECC would be based upon 2020 call volume and a full-time staff of 17 dispatchers would be 5,603 calls per employee. The Project Team does not recommend increasing this level, rather in this decision time for the RECC and the transition, the Project Team recommends the shift staffing of four dispatchers for the day and evening shifts and three dispatchers for the midnight shift to keep a strong level of service to their citizens that all municipalities have expected of these services.

The Project Team also recommends that three working supervisors be assigned to all shifts to provide oversight, guidance, and support for those times and at time of when a surge of calls impacts the center requiring the supervisor to providing dispatching services. The supervisors would also assist a director to supervise training, coordinate technology systems, and to provide oversight of the quality assurance programs.

To support the staffing requirement, it is recommended that an operational policy be developed for a contingency plan for staffing during a major event. The Project Team recommends a position of director for the functions of providing organizational leadership, continuation of the development of the RECC, and for outreach to the municipalities and the public safety agencies and an administrative assistant. The Project Team's recommendations consider the historical commitment for dispatch and other ancillary services in each public safety answering point (PSAP) while at the same time recognize the economy of scale that the RECC would provide for the future.

Dover, Holliston, Medfield, Medway, Millis, and Sherborn RECC Staffing								
	# of Dispatchers	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Per line							
<b>Day</b>	<b>2</b>	DO	DO	X	X	X	X	DO
Minimum 3	<b>2</b>	X	X	DO	DO	X	X	X
6 dispatchers	<b>2</b>	X	X	X	X	DO	DO	X
	<b>On duty</b>	4	4	4	4	4	4	4
<b>Eve</b>	<b>2</b>	DO	DO	X	X	X	X	DO
Minimum 3	<b>2</b>	X	X	DO	DO	X	X	X
6 dispatchers	<b>2</b>	X	X	X	X	DO	DO	X
	<b>On duty</b>	4	4	4	4	4	4	4
<b>Mid</b>	<b>1</b>	DO	DO	X	X	X	X	DO
Minimum 2	<b>2</b>	X	X	DO	DO	X	X	X
5 dispatchers	<b>2</b>	X	X	X	X	DO	DO	X
	<b>On duty</b>	4	4	3	3	3	3	4
<b>Total dispatchers</b>	<b>17</b>							
<b>Day Supervisor</b>	<b>1</b>	X	X	X	X	DO	DO	X
<b>Eve Supervisor</b>	<b>1</b>	DO	DO	X	X	X	X	DO
<b>Mid Supervisor</b>	<b>1</b>	X	X	DO	DO	X	X	X
<b>Director</b>	<b>1</b>	X	X	X	X	X	DO	DO

## Site Analysis

Site visits were conducted at the Dover, Holliston, Medfield, Medway, Millis, and Sherborn PSAPs located within the police departments of each municipality. The findings of the visits were as follows: In all six municipalities the dispatch center is equipped with two console positions and all are 911 capable. There is no available space in any of the current PSAPs that could accommodate the call-taking and dispatching requirements of this proposed six member RECC. Holliston provided there was a potential of adding a second floor to their police station. Below are the basic components of a RECC if one was to be developed.

### Basic Building Components of a RECC

The architectural design must accommodate the following spaces and equipment:

- Regional Emergency Communication Center - Dispatch Room
  - Workstations for five (5) dispatch positions that include four dispatcher radio/911 positions, and one supervisor position.
  - ADA compliance to facility/RECC
  - 1998 OSH and ADA console design
    - 1990 ADA ACT
      - Governs access
      - Reach Distances

- Reach Angles
  - 1998 OSHA
    - Minimize workplace injuries
  - Both regulations have resulted in boomerang shaped consoles
- System Equipment Room
  - Power, fiber, 911 lines and system, administrative phones system, security, IT servers and radio systems
- Employee Area
  - Kitchen/Breakroom
  - Locker Rooms (M&F)
  - Bathroom (M&F)
- Office Space – two (2) rooms for the Administrator and Supervisors
- Training/Conference room
- Storage Room

The scope and the cost of developing a new RECC is not achievable without the funds of the State 911 Department Grant funds. The FY23 Development Grant Guidelines provide the following information:

*“Applicants are advised that the State 911 Department reserves the right to consider the concentration of existing or proposed regional PSAPs and RECCs in the geographic region of the applicant, and whether it is in the interests of public safety and efficiency for the State 911 Department to direct the applicant to join such existing or proposed regional PSAP or RECC instead of developing a new regional PSAP, RECC or Regional Secondary PSAP. Applicants proposing a new regional PSAP, RECC or regional secondary PSAP, not previously funded under this grant program, in the same geographic region as an existing center or a proposed center previously funded under this grant program, shall address, in detail, the justification for the creation of a new center. Such justification shall, at a minimum, address regional PSAP(s), RECC(s) or regional secondary PSAP in its geographic region and why the applicant cannot join said center(s).”*

The only option is to review the available RECCs in the area that the municipalities may join and to consider those sites as potential sites to join. There are three RECCs with available space to allow each municipality to join. Two of the RECCs have available space today and one will be adding space in the future.

## Available RECC Site Descriptions

Three sites were identified as options by the leadership of the Towns of Dover, Holliston, Medfield, Medway, Millis, and Sherborn to join as a member of an existing RECC. One is a hosted RECC by the Town of Holbrook. The other two were established as Regional Emergency Communications Districts. The difference between the two is explained below in the Governance Section.

### **Holbrook Regional Emergency Communication Center (HRECC)**

The HRECC is located at 300 South Franklin Street in Holbrook, Massachusetts. The HRECC is located in the Holbrook Public Facility, which no longer had sufficient space to add municipalities. In 2018, the HRECC sought and received grant funds from the State 911 Department to pay for the design and partial construction of a new building for the communications center adjacent to the public safety facility, as well

as to purchase new equipment to add Rockland. The new facility will encompass 6,000 SF of space for an initial number of six 911 answering positions and 12 console/radio positions. The new facility will also include space for needed administrative offices and technology systems. Also included in the new facility will be new IT infrastructure (servers, workstations, firewalls, and switch gear), upgraded radio systems, and software.

Currently, there are 16 full-time dispatchers, six part-time dispatchers, four supervisors, one IT professional, one director, and one deputy director. The total FY2021 budget will be \$2,002,326.00.

In 2009, Holbrook began regionalization, with Sharon joining the communication center for fire services. Since that time the HRECC has grown to include the following municipalities and public safety agencies:

- Abington Police and Fire Departments/911;
- Canton Fire Department, secondary 911;
- Holbrook Police and Fire Departments/911;
- Rockland Police and Fire Departments/911;
- Sharon Fire Department and secondary 911;
- Whitman Fire Department (also acts as their primary 911 PSAP); and
- Norfolk County Control Point for Fire District 4 and Hazmat East Control Point.

The HRECC governance model used the Town of Holbrook as a host to provide regional 911 call-taking and dispatch services. The administrative support functions for the HRECC are provided by the participating Holbrook public safety departments. The cost sharing ratio for each municipality is based upon call volume at the municipal level.

The HRECC conducts quarterly meetings with the Administrative Committee, made up of member municipality police and fire chiefs or their designees. Much of the focus of the Committee is on standards and operations. The HRECC mission is to provide regional emergency communications services for the member municipalities through call-taking and dispatch services – it does not provide walk-in services. There is a strong focus on continuous improvement in the delivery of core services. The HRECC provided the following Mission Statement:

*“The Holbrook Regional Emergency Communications Center is the first of the first responders. We are committed to answering all 911 calls with professionalism, integrity, and compassion while efficiently dispatching police, fire, and emergency medical services. Customer service is essential to our success, so we treat each caller with empathy and respect. Our dedicated and highly trained professionals routinely offer lifesaving medical instructions in addition to providing accurate public safety information.”*

Benefits provided for the participating municipalities:

- More effective call-taking and dispatching services;
- More dispatch personnel for major events and surges of 911 calls;
- Standardization of protocols;
- Cost savings; and
- Enhances Mutual Aid.

#### Value added to municipalities:

- Provision of COMLs to assist with on-scene communications at critical incidents;
- Provide 20 radio sites with full microwave coverage supported by fiber network between tower sites for additional redundancy and coverage;
- The HRECC assists municipalities with a radio technician on-staff who is COML and COMT certified;
- Team of professional certified emergency telecommunicators (CETs);
- Certified EMD resource with robust QA/Q1 program;
- Systems in place for accountability, positive reinforcement, employee engagement, and employee retention;
- State-of-the-art technology and infrastructure, including the HRECC microwave network;
- Extensive network connectivity;
- Technology monitored 24/7 with redundant systems in place;
- Four trained communication leaders (COMLs) on staff to respond to incidents as requested or required to provide communications support and resource management. HRECC also has a communications vehicle that is equipped with phone, internet, satellite, and patching capabilities; can be utilized as a mobile repeater to provide stronger on scene communication capabilities and contains caches of portable radios; and
- A communications vehicle that is equipped with phone, internet, satellite, and patching capabilities; can be utilized as a mobile repeater to provide stronger on scene communication capabilities and contains caches of portable radios.

#### Implementation Steps to Join HRECC:

- Submit a letter of intent to the Director of the HRECC expressing a desire to join;
- Submit call volume to the HRECC;
- HRECC Director would meet with Municipality representative(s) to assess radio systems; and
- Submit the existing staffing of the current communications center.

### **Southeastern Massachusetts Regional 911 Emergency Communications District – Southeastern Massachusetts Regional Emergency Communications Center (SEMRECC)**

SEMRECC is located in a former AT&T Building at 100 High Rock Road in Foxborough, Massachusetts. AT&T sold the building to the District for a nominal fee. This 32,000 SF building and a 208-foot radio tower on-site was designed to be resistant to a nuclear attack. There is 18,000 SF on the first floor that will have a 10,000 SF portion of the floor outfitted as the footprint of the dispatch center that will include ten dispatch positions and space for 26 positions. The construction of the facility was completed in September 2020 and became operational in December 2020.

Currently there are 20 full-time dispatchers, four supervisors, and one operations section chief, one training section chief, one deputy director, and one executive director. The FY2021 budget is \$3 million.



The Southeastern Massachusetts Regional 911 District was established in 2017 by Foxborough, Mansfield, Easton, and Norton. The communications center known as the Southeastern Massachusetts Regional Emergency Communications Center (SEMRECC), initiated its operations in the Foxborough Public Safety Facility, providing call-taking and dispatch services for Foxborough and Mansfield in 2018. In 2020, Easton and Norton joined the SEMRECC moved into a new facility at the permanent building in Foxborough. The population of the member municipalities is approximately 100,000. The cost sharing formula is based upon an equal sharing of the cost of the District by municipality.

SEMRECC has an Administrative Board, a Finance Committee, and a working group made up of public safety chiefs. Currently, there is also an Interoperability Group and a Public Information Committee.

Benefits provided for the participating municipalities:

- Robust staffing, which includes six to seven dispatchers and supervisors on each shift;
- Certified Advanced EMD Dispatchers;
- Regional data sharing and analytics;
- Regional approach to radio system planning;
- Robust physical security and cybersecurity posture;
- Hosted CAD and RMS;
- Pre-incident planning assistance, including capabilities for aerial drone photography;
- 911 wireless direct with enhanced mapping and geolocation capabilities in addition to NG911;
- Major incident and event planning and response support;
- Increased PSAP, call-taking, and dispatching efficiency;
- Decreased and stabilize cost to municipality with a substantial return on investment;
- Ability to reduce employee count, healthcare costs, retirement and OBRA liabilities;
- Mobile data integration and data usage for public safety tactical operations;
- Provision of emergency management dispatchers who have completed Tactical Emergency Response training; and
- Dedicated training and quality assurance staff.

#### **Implementation Steps to Join SEMRECC:**

- Submit a letter of intent to the Director of the SEMRECC expressing a desire to join;
- Submit call volume to the SEMRECC;
- The SEMRECC Board approves the inclusion of municipality in the 911 District;
- The Director of the SEMRECC then
  - Meets with municipal representative(s) to identify their dispatching needs;
  - Calculate the needed staff for the SEMRECC including the requesting municipality;
  - Develop an overall budget for the SEMRECC;
  - Identify the municipal cost;
  - Assess the technology needs for municipality to join the SEMRECC;
  - Prepare a State 911 Development Grant to seek the funds to transition into the SEMRECC; and
  - Sign an IMA with SEMRECC.

## Metacomet Emergency Communication Center (MECC)

The MECC is located at Norfolk Police Department, 14 Sharon Avenue in Norfolk, Massachusetts. This is a new constructed facility for both the Police Department with the MECC located on the second floor. On May 6, 2019, the MECC went live and is now providing call-taking and dispatching services for Norfolk, Plainville, Wrentham, Franklin, Mendon, and Millville as member municipalities. The new facility provides a modern well-planned dispatch center, administrative offices, employee locker space and a large training/meeting room available to the MECC and the Norfolk Police Department. Currently there are three dispatch positions, four call-taker positions, and one supervisor position. Also included in the new facility is new IT infrastructure (servers, workstations, firewalls, and switch gear), upgraded radio systems, and software. The MECC does not provide for controls to open and close doors at fire stations for fire apparatus. The large training room can be converted into a more robust dispatch room in the event additional towns chose to join the MECC.

The objective of the MECC is to provide both the citizens and emergency responders in each municipality with the highest quality service. The Center is staffed 24/7 and is responsible for answering 911 calls in each municipality, business calls and dispatching appropriate emergency responders based upon the nature of the call. The MECC provides these services to 75,860 people.

All MECC employees are certified in emergency medical dispatch, fire service dispatch, and law enforcement dispatch. When residents call to report an emergency, the call-taker will ask a series of questions and will provide residents with pre-arrival instructions. Concurrently, fire and police radio operators are dispatching responders to the scene.

The MECC uses as their governance model, the legislative approved Regional 911 Emergency Communications District. The legislation provides a governance structure that authorizes the formation of the District and that sets forth the manner in which the members may provide for the management of the District, financial terms and conditions of membership, the addition of new member municipalities, and other financial and operational matters. The MRECC is overseen by a Board of Directors who serve as the governing and administrative body and have overall responsibility for the District. An Operations Committee, made up of member municipality police and fire chiefs or their designees, make recommendations concerning professional standards and procedures and any other operational recommendations it deems to be in the best interest of the MECC, and perform such other duties as may be requested by the Board.

Benefits provided for the participating municipalities:

- Strong call-taking and dispatch services for the member municipalities; and
- Provide front door two cameras and one intercom at each of the member municipalities public safety sites that are no longer staffed at their front door.

## Implementation Steps to Join MRECC:

- Submit a letter of intent to the Director of the MRECC expressing a desire to join;
- Submit call volume to the MRECC;
- The MRECC Board approves the inclusion of the municipality into the Dispatch District;
- The Director of the MRECC then
  - Meets with municipal representative(s) to identify their dispatching needs;
  - Calculate the needed staff;
  - Develop an overall budget;
  - Identify the municipal cost;
  - Assess the technology needs for each municipality;
  - Prepare a State 911 Development Grant to seek the funds to transition into the MRECC; and
  - Sign an IMA between the MRECC and each municipality.

## Governance Analysis

### Governance Models

**Regional Emergency Communication Districts** and **hosted Regional Emergency Communication Centers (RECCs)** are different in their organizational structure but similar in their service provided. The Districts are regional government entities as established by Massachusetts legislation. The hosted RECCs are entities within a municipality's municipal government structure (i.e., police or fire departments or a separate emergency communications department). Both are governed by an inter-municipal agreement (IMA).

A significant difference between the two is how their administrative support functions are provided. Those functions include payroll, financial management, procurement, human resources (including collective bargaining), medical insurance, retirement, and other personnel-related insurance and taxes.

A District provides those services through contractual relationships. All these costs are borne by the members of the district. The personnel are employees of the district. A hosted RECC is provided those services through the municipal government departments and contracted services. The personnel are employees of the host municipality. A portion of these costs for these services are passed on to the municipality members of the RECCs.

The State 911 Department through their Regional Emergency Dispatch Development Program currently provides the funding for these administrative tasks. It is entirely up to the municipalities involved as to their choice of the type of structure for the RECC. Both have been successful in Massachusetts. The most successful RECCs have been led by directors who embrace their role as a partnership with their members and their public safety agencies and are focused on excellence in providing emergency communications services by their dispatch personnel. Of importance to the long-term success of the RECC is the role of municipal ownership in the RECC that is achieved by the responsibilities of the district administrative board. A dispatch district does present the best opportunity to achieve ownership. Below is a chart that analyzes the differences between hosted RECCs and dispatch districts.

Governance Model Key Functions	Hosted RECC	Regional Dispatch District
Appointing Authority	Host Municipality Town Manager/Board of Selectmen (BOS)	District Administrative Board Member Municipality Town Managers
Budgetary oversight and approval	Host Municipality Board of Selectmen	Administrative Board
Administrative Input	Informal with regular meetings with chief	Board of Directors – quarterly meetings
Operations Input	Standards and operations committee	Working Groups with chiefs from member towns
Administrative Functions: <u>Accounting Services</u> payroll, financial management <u>Procurement,</u> <u>Human resources</u> collective bargaining, medical insurance, retirement, and other personnel related insurance	Town Accountant  Procurement Director HR Department	Contracted services*  Contracted services Contracted services  *Contracted services may be provided by the host municipality or a private entity.
Technical expertise	Reliance on town IT services	Requires outside consultant
Dispatch site space	Requires available sufficient Dispatch floor space for expansion capability, Office, dispatcher locker room, break room and bathroom in existing public safety building	Requires lease or procurement of sufficient space and room requirements in a new location, public or private.

## Transitional Training

The development of a plan for transitional training is essential to prepare the dispatch personnel for their call-taking and dispatching roles in the newly formed RECC. Recommendations for elements of that plan include the following:

- Familiarization of the dispatchers with all of the municipalities that join the RECC, their unique areas, and the public safety response agencies to inform the dispatchers of the unique features within each municipality;
- Information gathered from interviews with the new dispatchers as to any needs that they identify;
- New call-taking and dispatching procedures as developed by the director and the operations committee;

- Emergency medical dispatch protocols – once a vendor for the RECC is selected and signed off by each municipal medical director, the unique training requirements and protocols will be included in the transitional training plan;
- CAD and RMS training after a vendor has been awarded a contract and data has been integrated into the regional system;
- Console/radio systems usage; and
- State 911 Training recommendations.

In the time leading up to the actual activation of the RECC, it is recommended that the designated director of the RECC interview the training coordinator from the State 911 Department regarding their recommendations for transitional training, and to put those recommendations into a transitional training plan. The plan would then be the basis of a grant proposal that would be submitted to the State 911 Department for funding to implement the plan.

## Standardized Operational Protocols/Call-Taking and Dispatching Procedures

The operational protocols used by the RECC should be laid out in a set of policy and procedures (P&Ps). Each municipality has developed their unique P&Ps for their public safety services. For the RECC to operate most effectively, it requires those public safety leaders to work together to develop uniform P&Ps. Both municipalities have processes to train and guide dispatchers in carrying out their responsibilities. To undertake the responsibilities of the RECC in providing their services, there is a need for a dispatch manual that provides general call-taking and dispatch services, as well as the unique responsibilities for fire and police emergency calls as well as emergency medical dispatch (EMD) guidelines as defined by the State 911 regulations. The RECC director and the operations committees or their designees should develop these P&Ps together.

The P&Ps will encompass information from local ordinances, Massachusetts statutes, the board bylaws and any current labor agreement or one subsequently adopted. Massachusetts has implemented, under the State 911 Department, 560 CMR 5.00, the Establishment of Certification Requirements for Enhanced 911 Telecommunicators/Dispatchers, governance of EMD, and the establishment of 911 Call-Handling Procedures. Adherence to these standards is mandatory. As part of these regulations, the Commonwealth has also provided that:

*“All levels of PSAPs shall be required to negotiate call-handling procedures with all public safety agencies to ensure proper handling of emergency calls. The PSAP and public safety providers served by the PSAP shall review these procedures every six months for the first two years and then annually thereafter and make changes as needed.”*

In developing a common set of operational procedures, the director and the operations committee should be guided by the standards developed by the Commission on Accreditation of Law Enforcement Agencies (CALEA), in conjunction with the Association of Public Safety Communications Officials (APCO), for a national accreditation program for communications centers. 218 standards have been developed as a part of the program. These standards are organized into six topic areas as follows:

- Organization;
- Direction and Authority;
- Human Resources;
- Recruitment and Selection;
- Training; and
- Operations.

The standards represent the best professional requirements and practices and describe what the agency should be doing, not how they should be doing it. The standards are a useful guide to the establishment of policies and procedures regardless of whether accreditation is sought. Other sources of best practice information for call-taking and dispatching procedures are as follows:

- NENA – National Emergency Number Association; and
- NFPA – National Fire Protection Association.

This process works most effectively when one person is designated as the original writer for draft documents and point of contact (POC) for the RECC Dispatch Guidelines/Procedures Sub-Committee. That person would develop a draft procedure based upon the draft protocols of current procedures in the municipality dispatch centers, and the best practices that come from the above cited sources. The operations committee would provide feedback on the draft documents, changes to be made and the final document during facilitated sessions of the designated members of the operations committee. This work is time-consuming and should be accomplished during the transition time prior to the RECC facility being completed.

## Cost-Benefit Analysis

The following analysis provides a financial assessment if the six municipalities chose to stay together and develop a RECC, if an appropriate site was located.

### 1) Financial Role of State 911 Department

The State 911 Department is charged with coordinating and effecting the implementation of enhanced 911 service and administering such service in the Commonwealth. In fulfilling this responsibility, the State 911 Department provides PSAPs in Massachusetts that serve as the first point of reception of a 911 call with call processing equipment, database, network, and technical support services, training for personnel handling the calls at the PSAPs, and with funding to support the operation of the PSAPs through the administration of an extensive grant program.

The State 911 Department has been committed to a more effective and economical 911 system through regionalization of those services. The Massachusetts State 911 Department provides a specific grant program to develop and operate RECCs. The State 911 website provides the FY22 Guidelines for the application process for these grant programs. Below is a listing of the relevant information for these grants from the website.

### *Support Grants*

Primary PSAPs, regional PSAPs, regional secondary PSAPs, and RECCs are eligible to participate in the program and are eligible to receive support grant funding. For FY2020, \$23,464,196.00 of the total surcharge revenues of the previous fiscal year shall be allocated to support grant awards and are disbursed according to a formula weighing both 911 call volume and population served.

### *Incentive Grants*

In addition to amounts allocated as part of the above support grant, existing regional PSAPs and RECCs are eligible to receive incentive grant funding through the program based on the following allocation formula;

- For regional PSAPs serving 2 municipalities:  
0.75 of one percent (1%) of the total surcharge revenues of the previous fiscal year;
- For regional PSAPs serving 3 to 9 municipalities:  
a minimum of 1½ percent (1.5%) of the total surcharge revenues of the previous fiscal year;
- For regional PSAPs serving 10 or more municipalities:  
1½ percent (1.5%) of the total surcharge revenues of the previous fiscal year; and
- For regional emergency communication centers:  
ten percent (10%) of the total surcharge revenues of the previous fiscal year.

### *Regional Development Grants*

Grant funds may be used by grantees only for the permissible categories of use listed within the specific categories set forth below:

- Associated with the provision of enhanced 911 service; and
- Approved by the State 911 Department.

Funds may be used for clerical, administrative, or other costs associated with administration of the program, provided that funds may not exceed one percent (1%) of the total amount awarded to the grantee. The services shall be specifically identified with the project, and the grantee shall provide detailed documentation, to the satisfaction of the State 911 Department, supporting the services (including, without limitation, the time and dollar amount of the services).

The State 911 Department will allow funding for the purchase or lease of equipment, allowable construction items, and allowable structural improvement items and for debt service on equipment, allowable construction items, and allowable structural improvement items, including without limitation, principal and interest payments on loans, notes, and bonds. The State 911 Department will allow grantees to assign lease, debt service, and/or or incremental purchase costs to this grant. However, all funding requested under this grant program shall be for goods and/or services received. Funding will not be disbursed for obligations made without receipt of goods/services. The State 911 Department makes no guarantee of funding from year to year and does not assume any obligation, as guarantor or otherwise, under any purchase, lease, or debt instrument.

All technology or telecommunications related goods or services must be compliant with applicable laws, rules, regulations, and standards.

### *Security Measures Grants*

Existing and proposed regional PSAPs and RECCs are eligible to apply for funds for the following allowable items within the transition expenses category:

- Security measures (such as remote cameras, remote printers, and security doors); and
- One-time costs associated with the installation of such security measures.

### *Equipment Grants*

Existing and proposed regional PSAPs, regional secondary PSAPs, RECCs, and the Northampton Wireless State Police PSAP are eligible to apply for funds for equipment associated with the provision of enhanced 911 service that is not directly provided by the State 911 Department and/or equipment to be used to foster the development and startup of regional PSAPs, regional secondary PSAPs, and RECCs or the expansion or upgrade of existing regional PSAPs and/or regional secondary PSAPs. Allowable items to be funded through this grant include, but are not limited to:

- Radio systems and consoles;
- Computer-aided dispatch;
- Records management systems;
- Fire alarm receiving and alerting equipment; and
- Consultant services in support of equipment.

All radio systems shall comply with EOPSS Statewide Inter-Operability Emergency Communications (SIEC).

Special conditions as may be amended from time to time. The State 911 Department will submit requests for such funding to the SIEC and/or the Statewide Interoperability Coordinator (SWIC) for review and confirmation that the requested item(s) comply with the SIEC special conditions. Funds for radio systems may be used to defray the costs associated with the acquisition of radio systems used for police, fire, emergency medical services, and/or emergency management communications.

In FY21, the State 911 Commission approved a new criterion for the Transition Award. Below is chart that explains that Award.

<b>State 911 Department – Development Grant Program FY22</b>
<b>Transition Award</b>
Transition award, payable to the entity that operates a regional PSAP or RECC on behalf of the participants, for each PSAP that is decommissioned on or after July 1, 2018, and becomes operational as a participant in such regional PSAP or RECC, in the amount that represents the <i>greater of</i> : <ul style="list-style-type: none"><li>• the last allocation for the decommissioned PSAP under the State 911 Department Support Grant; or</li><li>• the amount of the assessment or charge allocated to such PSAP for the current fiscal year under</li></ul>



**State 911 Department – Development Grant Program FY22**

**Transition Award**

the terms of the signed inter-municipal agreement or other equivalent agreement governing the operations of the regional PSAP or RECC.

Such transition award(s) shall be credited against the obligation of the decommissioned PSAP(s) by the grantee. A decommissioned PSAP may be provided with the credit three (3) times to be applied for in three (3) different grant cycles, or two (2) times to be applied for in two (2) different grant cycles if a transition award was already applied for and awarded in the FY 2020 grant cycle pursuant to grant guidelines in effect at that time.

After applying for and being awarded a transition award a total of three (3) times, a decommissioned PSAP may be provided with a credit an additional two (2) times to be applied for in two (2) different grant cycles, but the award will be limited the first time to fifty percent (50%) of the *greater of*:

- the last allocation for the decommissioned PSAP under the State 911 Department Support Grant; or
- the amount of the assessment or charge allocated to such PSAP for the current fiscal year under the terms of the signed inter-municipal agreement or other equivalent agreement governing the operations of the regional PSAP or RECC, and limited for the second time to 25% of the greater of
  - the last allocation for the decommissioned PSAP under the State 911 Department Support Grant; or
  - the amount of the assessment or charge allocated to such PSAP for the current fiscal year under the terms of the signed inter-municipal agreement or other equivalent agreement governing the operations of the regional PSAP or RECC.

Documentation that such credit has been granted in the form of a written acknowledgment from the decommissioned PSAP shall be required prior to reimbursement. The amount of the assessment or charge allocated to such PSAP for the current fiscal year under the terms of the signed inter-municipal agreement or other equivalent agreement governing the operations of the regional PSAP or RECC.

Documentation that such credit has been granted in the form of a written acknowledgment from the decommissioned PSAP shall be required prior to reimbursement.

**2) Current FY2022 Budget**

The participating municipalities were asked to provide their current budget information. This will be used for comparison with any new projections related to RECC operations.

The table below displays the current budgets for each of the municipal emergency dispatch services with a breakout of the personnel expenses, OPEB, and support (administrative and maintenance) expenses:

Municipality	Personnel Expenses <sup>3</sup>	OPEB	Support Expenses	Budget Total
Dover	\$295,000.00	\$72,145.00	N/A	\$367,145.00
Holliston	\$335,821.00	\$97,870.00	N/A	\$433,691.00
Medfield	\$320,804.23	\$75,511.00	\$33,112.95	\$429,428.18
Medway	\$323,118.64	\$66,742.00	\$16,900.00	\$406,760.64
Millis	\$286,678.00	\$73,566.00	\$9,250.00	\$369,494.00
Sherborn	\$361,095.00	N/A	\$20,000.00	\$381,095.00
<b>Totals</b>	<b>\$1,922,516.87</b>	<b>\$386,034.00</b>	<b>\$79,262.95</b>	<b>\$2,387,813.82</b>

### 3) Capital Expenditures

Dover, Holliston, Medfield, Medway, Millis, and Sherborn are currently responsible for financing, planning, and meeting a replacement schedule for their equipment, which can come at a substantial capital cost. Operating on a 24/7 schedule places significant demands on emergency communications center equipment. The estimated life cycle of dispatch equipment is as follows:

Equipment	Life Cycle
PCs & Laptops	3 years
Servers & Routers	5 years
Software Upgrades	7 years
Radio Console	7 years
Dispatch Furniture	10 years

The outdated equipment of the Dover Police and Fire Departments include the following:

- Radio system is twenty years old and provides fair to poor radio reception – system would be considered to be in need of replacement;
- Radio coverage gaps were identified in four areas of the Town;
- Two dispatch consoles (Motorola MCC5500) – 20 years old in need of replacement; and
- CAD/RMS – IMC system is an older software.

The outdated equipment of the Holliston, Medfield, and Millis Dispatch Centers include the following for each:

- CAD/RMS – IMC system is an older software.

The outdated equipment of the Medway Dispatch Center include the following:

- Radio coverage gaps were identified in two areas of the Town; and
- Two dispatch consoles (Motorola MC5500) – 11 years old and in need of replacement.

<sup>3</sup> Includes salary, overtime, and other contractual expenses.

The outdated equipment of the Sherborn Dispatch Center include the following:

- Radio coverage gaps were identified in two areas of the town.
- CAD/RMS – IMC is an older software.

Municipality	Type of Equipment	Replacement – 3-year Total Cost	Annual Replacement Cost
<b>Dover</b>	Dispatch Consoles	\$450,000.00	\$150,000.00
	CAD/RMS	\$550,000.00	\$183,333.33
	Radio system, coverage analysis, engineering and equipment	\$1,350,000.00	\$450,000.00
	<b>Estimated Town Costs</b>	<b>\$2,350,000.00</b>	<b>\$783,333.33</b>
<b>Holliston</b>	CAD/RMS	\$450,000.00	\$150,000.00
<b>Medfield</b>	CAD/RMS	\$450,000.00	\$150,000.00
<b>Medway</b>	Radio coverage gaps - engineering and equipment	\$183,000.00	\$150,000.00
	Dispatch Consoles	\$450,000.00	\$150,000.00
	<b>Estimated Town Costs</b>	<b>\$633,000.00</b>	<b>\$211,000.00</b>
<b>Millis</b>	CAD/RMS	\$450,000.00	\$150,000.00
<b>Sherborn</b>	Radio coverage gaps – engineering and equipment	\$183,000.00	\$150,000.00
	CAD/RMS	\$450,000.00	\$150,000.00
	<b>Estimated Town Costs</b>	<b>\$633,000.00</b>	<b>\$211,000.00</b>
	<b>Total Cost</b>	<b>\$4,966,000.00</b>	<b>\$1,655,333.33</b>

#### 4) Cost Sharing

The recommended cost-sharing ratio for this center would be based on the population and 911 call volume of the municipalities as shown below. This method is utilized by the State 911 Department in the distribution of their support and incentive grant program and is seen as a fair and equitable method to share the costs for the RECC. The State 911 Department uses these two categories to distribute their Incentive and Operations Grant funding. This method calls for an equal ratio of 911 call volume (50%) and population (50%). The information for the criteria is developed using independent sources, i.e., the State 911 Department and the federal census data. The data and the ratio are listed below.

Municipality	911 Calls 2020	911 Calls %	Population 2020	Population %	911 Calls/Population Ratio 50%/50%
<b>Dover</b>	891	8.39%	5,923	9.92%	9.16%
<b>Holliston</b>	2,108	19.85%	14,996	25.12%	22.49%
<b>Medfield</b>	2,106	19.83%	12,799	21.44%	20.64%

Municipality	911 Calls 2020	911 Calls %	Population 2020	Population %	911 Calls/Population Ratio 50%/50%
Medway	2,512	23.65%	13,115	21.97%	22.81%
Millis	1,578	14.86%	8,460	14.17%	14.52%
Sherborn	1,425	13.42%	4,401	7.37%	10.40%
Totals	10,620	100.00%	59,694	100.00%	100.00%

**5) Proposed State 911 Support for Dover, Holliston, Medfield, Medway, Millis, and Sherborn RECC**

The State 911 Department provided its estimate for Support and Incentive Grant funds on a recurring basis for a RECC for the six municipalities in this RECC Study. This estimate was received for this study and is as follows:

FY2022- DHMMMS RECC December 9, 2021			
Entity	Support	RECC	Total Grant Funding
DHMMMS (Dover, Holliston, Medfield, Medway, Millis, Sherborn)	\$184,509	\$667,945	\$852,454
Calculations assume configurations are as noted. Changes to the municipalities included/excluded will impact funding levels. All estimates are subject to funding availability.			
Above RECC projections are calculated based upon anticipated regional PSAP and RECC configurations for FY 2022. Timelines impacting current project(s) may impact these projections. Allocation amounts are further subject to change in compliance with the following excerpt from the S&I grant guidelines <i>"The percentages in clauses i to iv, inclusive, and the percentages of the total amounts allocated to each grantee eligible within such clauses i through iv may be adjusted by the State 911 Commission to ensure a proper allocation of incentive funds as more regional PSAPs and regional emergency communication centers are added. The amount allocated to a grantee may be adjusted or capped."</i>			
2010 Population used for projections and 2020 911 call volume used.			
<b><i>Please note funding levels represent a surcharge of \$1.50; Allocations are subject to change at such time as the surcharge is reduced to \$1 on January 1, 2024.</i></b>			

**6) Projected FY2023 RECC Budget**

Regional Emergency Communications Center (RECC) Budget	YEAR 1	
	FY 2022 Draft Budget	% of Budget
<b>Personnel</b>		
Director Salary	\$106,000.00	
Supervisor Salary (3)	\$216,000.00	
Dispatcher Salaries (17)	\$986,000.00	
Admin. Assistant	\$62,000.00	
Overtime	\$75,000.00	
OPEB -Fringe Benefits/Payroll Tax - 32%	\$438,400.00	

Regional Emergency Communications Center (RECC) Budget	YEAR 1	
	FY 2022 Draft Budget	% of Budget
<b>Total for Personnel</b>	\$1,883,400.00	<b>94.27%</b>
<b>Other Non-personnel expenses</b>		
Maintenance Costs	\$44,000.00	
CAD/RMS License Fees	\$25,431.00	
Admin. Costs (legal-HR-Ins)	\$45,000.00	
<b>Total for Maintenance/Admin.</b>	\$114,431.00	<b>5.73%</b>
<b>Total for Dispatch Services</b>	\$1,997,831.00	<b>100.00%</b>
<b>State 911 Reimbursement</b>	\$852,454.00	<b>42.67%</b>
RECC minus State 911 Funds	\$1,145,377.00	<b>57.33%</b>
<b>Cost per Municipality as RECC</b>		
Dover	\$114,537.70	
Holliston	\$273,859.64	
Medfield	\$186,467.38	
Medway	\$280,273.75	
Millis	\$166,308.74	
Sherborn	\$123,929.79	
<b>Current Costs FY21 Budgets</b>		
Dover	\$367,145.00	
Holliston	\$433,691.00	
Medfield	\$429,428.18	
Medway	\$406,760.64	
Millis	\$369,494.00	
Sherborn	\$381,095.00	
<b>Current Total Cost</b>	<b>\$ 2,387,613.82</b>	
<b>Cost Savings per municipality</b>		
Dover	<b>\$ 252,607.30</b>	
Holliston	<b>\$ 159,831.36</b>	
Medfield	<b>\$ 242,960.80</b>	
Medway	<b>\$ 126,486.89</b>	
Millis	<b>\$ 203,185.26</b>	
Sherborn	<b>\$ 257,165.21</b>	
<b>Total Savings</b>	<b>\$ 1,242,236.82</b>	

## 7) Costs Saving Summary

This table below documents the savings that are anticipated from this annual cost-sharing effort, as outlined in the previous sections, for the initial three-year period.

<b>Municipality</b>	<b>Non-Recurring Capital Savings</b>	<b>Recurring Cost Savings</b>	<b>Total Savings</b>
<b>Dover</b>	\$783,333.33	\$252,607.30	\$1,035,940.63
<b>Holliston</b>	\$150,000.00	\$159,831.36	\$309,831.36
<b>Medfield</b>	\$150,000.00	\$242,960.80	\$392,960.62
<b>Medway</b>	\$211,000.00	\$126,486.89	\$337,486.25
<b>Millis</b>	\$150,000.00	\$203,185.26	\$353,185.26
<b>Sherborn</b>	\$211,000.00	\$257,165.21	\$468,165.21
<b>TOTAL</b>	<b>\$1,655,333.33</b>	<b>\$1,242,236.82</b>	<b>\$2,897,569.33</b>

## Research & Planning

### Professionalism of Communications Centers & Emerging Trends

The primary goal of agency leaders interviewed was to increase the level of communication services to their municipalities and to their departments. Several the interviewees noted that a strength of an RECC is the development of long-term professional dispatch services. Professionalism is a determination of specific practitioners, methods, and performance criteria for a particular profession. The current trend of the 911 communication discipline is strongly focused on standards, best practices, personnel selection, training requirements, and utilization of technology. To enhance professionalism of communications centers requires a better understanding of the current plans to modernize emergency communications services nationwide. The trends are focused on:

- Increased capability to handle data, voice, and video;
- Inter-connect with other communications centers such as traffic management centers to coordinate movement of resources, personnel, equipment, and supplies;
- Enhance the cost effectiveness of human and technical resources;
- The integration of text messaging into our PSAP center operations and personnel training to meet societal trends;
- Challenges of dealing with multiple calls for service to the same events from the transition from wire to wireless communication devices; and
- The increased prevalence of video recording among younger generations.

### Geographic Information Systems (GIS)

Nothing is more important to dispatching a call for service than location. The adage of “Location, Location, Location” cannot be truer than in responding to a call for service (CFS). An increasing number of dispatch

centers are adding layers of geographic information fire hydrant, hazmat, and critical infrastructures in addition to homes and businesses. It also provides for better routing of resources.

### **Enhanced Technology**

Technology is making the combining of PSAP 911 Centers more cost effective through more robust communications systems, economy of scale in purchasing, establishment of dispatching and resource tracking standards, and increased employee morale through professionalism. Better dispatch systems in the marketplace allow greater ease of pass-off of resource control to Police, Fire, and EMS.

Additionally, strides are being made in the improved ability to work with the disabled through telecommunications devices for the hearing impaired, interpreting services for foreign languages, texting for the speaking impaired, and coordinating with local, country, state, and federal planning organizations for standards in address assignments.

Organizations actively improving communications infrastructures and standards development are:

- Massachusetts State 911 Department;
- APCO (Association of Public-Safety Communications Officials);
- NENA (National Emergency Number Association);
- USDOT (US Department of Transportation);
- IETF (Internet Engineering Task Force); and
- TIA (Telecommunications Industry Association).

### **Personnel Selection and Training Standards**

The Massachusetts Communications Supervisors Association (MCSA) provides recommendations for minimum basic training standards for full and part-time public safety telecommunicators or dispatchers in Massachusetts. Those standards include the following elements:

- Standards for telecommunicators for taking 911 calls and dispatching police, fire, and emergency medical services;
- In-service and continuing education standards; and
- Supervisor and center management standards.

### **FirstNet**

In response to the identified problems with the lack of radio interoperability for first responders to the September 11 terrorist attacks, the First Responder Network Authority (FirstNet) was created by Congressional action and is being implemented throughout the country. Massachusetts is in the second year of planning this effort. FirstNet is establishing a nationwide, interoperable public safety broadband network dedicated to first responders. In establishing this network, FirstNet is guided by these important principles:

- A public safety-grade network built to meet the needs of our nation's first responders;
- Provide public safety users with true priority access to the network;

- Will harden the network to assist with resiliency during natural disasters, incidents, and man-made threats;
- Will enhance public safety communications by delivering mission-critical data and applications that augment the voice capabilities of today's land mobile radio (LMR) networks;
- Enable local communications management and keep incident commanders in control;
- Be judicious with taxpayer dollars while remaining focused on offering its services to public safety at a compelling cost; and
- Will have effective security controls that protect data and defend against Cyber Threats.

### **Prior 911 Center Consolidation Research**

Thomas Kennedy and CTC, Inc. managed a research study from 1998 to 2000 for the National Institute of Justice, Office of Science and Technology, regarding a **Multijurisdictional Information Systems Assessment**. After analysis of 400 systems identified in paper surveys and then conducted an in-depth assessment of 17 diverse systems, including those provided by state, county, city, and regional agencies. The findings of that substantial study, that are very applicable for the development of RECC's, concluded that the attributes of a successful multi-jurisdiction system were as follows:

- *Key leaders* were identified as the most important reason these systems were successful;
- *Personnel issues*, not technology issues, were identified as being the most important factor in establishing an effective multi-jurisdictional information system;
- Managers of virtually all the successful information systems examined were *thinking strategically*; and
- Nearly all the systems developed *advisory boards or steering committees* to oversee long-term development of the system.

NIJ had the study conducted to identify a technology or process as the key to the success of the multi-jurisdictional system. The Study found that it was people who made the difference.

**Minnesota's Governor's Work Group on PSAP Consolidation, A Guidebook for PSAP Consolidation Strategies. 2009.** The Guidebook provides the most detailed document that has been published regarding the needed information regarding the process to consider the regionalization of emergency communication and then to implement the transition phase. An excerpt of the Executive Summary of the Guidebook provided the following:

The evolution of 911 technology and difficult economic times have encouraged both state and local governments, and public safety agencies to investigate the concept of shared services or consolidation. The simplest definition of consolidation is the combining of two or more PSAPs into a single facility and/or organization using one of several existing models. Though the consolidation process is often complex and difficult, it can yield substantial improvements in service levels, responder safety, employee retention, and potential cost savings if implemented correctly.

The Phases identified in the Guidebook include:

- Identifying a champion for the project;
- Interest building for decision makers;



- Feasibility Study;
- Planning Phase;
- Implementation/Transition Phase; and
- Post consolidation Phase (service and technology).

The **John J. Heldrich Center for Workforce Development, Rutgers University, New Jersey** completed a comprehensive analysis of New Jersey's E911 system and the experience of other states with consolidation of 911 operations in 2005-2006. Key findings from that study were as follows:

- Local officials in New Jersey and 911 officials from other states cite improved service and public safety as potential benefits of consolidation;
- There are clear economies of scale in the cost of handling 911 calls;
- There is potential for improved efficiency through consolidation of PSAPs (Public Safety Answering Points) and PSDPs (Public Safety Dispatch Points) that have a low workload or call volume;
- Reducing the number of PSAPs and PSDPs has the potential to generate cost savings for state and local government; and
- State policy can influence the direction of 911 consolidation by creating a supportive environment.

At the **International Association of Chiefs of Police (IACP) Law Enforcement Information Management (LEIM)** Conference in 2012, a presentation was made on dispatch consolidation by public safety practitioners based upon the development and operational experience of a large regional emergency communication center in Indiana. The presentation provided that the benefits of a regional emergency communication center included the following:

- Long term cost savings potential;
- Better systems and service model;
- Opportunity to reduce duplication, share costs and focus on core mission (new public sector emphasis); and
- Improved employee retention and growth opportunities for dispatch personnel.

The session also identified the likely challenges, which the presenters identified as:

- Political buy-in (need concept champion);
- Governance structure (key point);
- Cost sharing formulas (key point);
- Perception of a potential loss of control and organizational identity; and
- Adoption of a shared service model – differences must be resolved so there will be a consistent service provision approach/change management (business rules/protocols).

### **Research Within Massachusetts**

Thomas Kennedy, the principal consultant for this project, was the President at the Center for Technology Commercialization Inc. (CTC) who conducted 12 feasibility studies involving thirty-four

municipalities. Tom was able to document the results 198 interviews that were conducted with public safety chiefs, town managers and administrators, mayors, police officers, fire fighters, and dispatchers.

Below is a listing of the responses from interviewees to a standardized list of questions regarding the strengths, weaknesses/concerns of RECCs as well as transition recommendations to consider if their municipality should join or develop a RECC.

The top five cited benefits of an RECC as believed by the interviewees are as follows:

- Standardized/use of the same dispatch protocols;
- Resources – more dispatch personnel for major events and increased surge of 911 calls;
- Cost Savings, Financial Support – state contributions to center development and recurring costs;
- Enhanced Mutual Aid; and
- More effective call-taking and dispatching services for the public and emergency response.

The top five cited weaknesses/concerns of an RECC as believed by the interviewees are as follows:

- Labor issues – seniority;
- Keep out the dynamics of politics;
- Not having anyone at the PD window or to monitor prisoners;
- Loss of local knowledge, i.e., landmarks etc.; and
- Need updated dispatch protocols.

The top five cited recommendations for a successful transition to a RECC:

- Need open communications/transparency;
- Work out labor / union issues;
- Provide a greater level of training opportunities;
- Transition training – dispatch protocols (SOPs and radio codes)
  - Local knowledge-landmarks, repeat callers and responder nuances, requiring
    - Management coordination meetings;
    - Ride along with public safety personnel from new municipality;
- Requires clear cut plan
  - Best option;
  - Cost estimate including staffing and other recurring costs; and
  - Policy and Procedures.

## Findings & Recommendations

Dover, Holliston, Medfield, Medway, Millis, and Sherborn are suited quite well to establish or join a RECC. There is recognition of the benefits of a RECC, but there is no one site that is capable of accommodating a RECC at this time. All operate with one dispatcher on duty per shift creating great difficulties for major events and emergency medical calls. There are three RECCs that in the regional area that could provide these services. Each municipality should make their own decision regarding which RECC they should join.

Each RECC will have a different timetable as to when the town can transition over to the RECC. The specific findings and recommendations are as follows:

- There is no current PSAP that has adequate space to be converted into a Regional Emergency Communications Center (RECC)
- It is feasible to regionalize Dover, Holliston, Medfield, Medway, Millis, and Sherborn into an existing RECC that has the capacity to add each municipality to their Center's membership. Three regional emergency communications centers – Holbrook RECC, Metacomet RECC, and Southeast Massachusetts RECC (SEMRECC) – have the capacity and the desire to add municipalities;
- Develop an outreach program to all the municipalities discussed to inform them of the enhanced capability of the RECC
  - Through a well-planned outreach effort, each municipality can keep residents up-to-date and fully informed of the timeline for the transition into Holbrook RECC, Metacomet RECC, and SEMRECC, the rationale for change, and the benefits to them in the form of enhanced services;
  - In the outreach plan, there is a need to encourage municipality members to utilize the 911 call number for all emergency calls rather than use any of the administrative lines;
- Develop a plan to assess the administrative and security needs for each of the police and fire departments in order to ensure that contact with walk in traffic is being responsive to the needs of the municipality and to ensure that the cell block area is being monitored for prisoner safety;
- Develop a Transition Training Plan (TTP) to incorporate all elements of required dispatch training as required by State 911, CAD/RMS, Dispatch Protocols, EMD and municipality knowledge;
- Utilize the insight of the dispatchers and public safety personnel to develop excellence in operational guidelines/practices for the citizens of both municipalities and their public safety services; and
- Assist the RECC that each municipality chooses to provide the emergency communications services for the State 911 Development Grant to provide the necessary equipment and services for the appropriate transition.

Note: Two of the communities have decided to join existing regional emergency communications centers. They are:

- Sherborn has agreed to join the Holbrook RECC
- Millis has agreed to join SEMRECC