



Regional Emergency Communications Center Feasibility Study for

The Middlesex Sheriff's Office and the MetroWest Regional Public Safety Council



February 8, 2012

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Appendix A – Senate 2037: Bill to Enable
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Executive Summary

This Regional Emergency Communications Center (RECC) Feasibility Study and Plan (the Feasibility Study) grew out of conversations which began early in 2010 involving local officials of eight towns in the MetroWest area of Middlesex County. These towns included Ashland, Framingham, Holliston, Hopkinton, Natick, Sherborn, Sudbury and Wayland. Altogether, the eight towns comprised a population of 179,206 and a land area of 153.3 square miles. The Middlesex Sheriff's Office (MSO) served as grantee for the grant from the Commonwealth of Massachusetts, Executive Office of Public Safety and Security (EOPSS), State 911 Department which funded the full cost of this Feasibility Study. The Towns and MSO collectively were known as the MetroWest Regional Public Safety Council (MRPSC).

Officials of the eight towns sensed that there might be both operational and fiscal advantages to consolidating their emergency communications services. As the MRPSC stated on Page Two of the Scope of Work for this Feasibility Study:

Three tiered responses (fire, police, and EMS) will benefit greatly from having a single source of notification. Furthermore, having multiple call takers available will allow for the center to provide emergency medical dispatch services while units are responding to a function that is nearly impossible in a single dispatcher environment. Additionally, multiple 911 Public Safety Answering Points (PSAPs) currently in use will be reduced to one, and current radio frequencies can be realigned to allow for better interagency communications. Professional, trained dispatchers will allow for smoother interface with non-member agencies, including state and federal agencies that are routinely involved in local incidents.

The Commonwealth of Massachusetts Executive Office of Public Safety and Security (EOPSS), State 911 Department provided the Middlesex Sheriff's Office with a grant to perform this RECC Feasibility Study.

On February 18, 2011, the MRPSC released a solicitation to consulting firms listed on the Commonwealth of Massachusetts Statewide Contract for Information Technology Services (ITS43). With responses due on March 4, 2011, this procurement sought a qualified consultant "...to develop a detailed feasibility and information plan for establishing a Regional Emergency Communications Center (RECC) to serve at least eight (8) municipalities in Middlesex County, particularly the towns of Ashland, Framingham, Holliston, Hopkinton, Natick, Sherborn, Sudbury and Wayland as well as the Middlesex Sheriff's Office (MSO)." The solicitation for these consulting services also addressed directly the possibility of future expansion to include two to six other municipalities. Webb Consulting Services, LLC of Canton, Massachusetts was awarded the contract as a result of this solicitation.

This Feasibility Study has been characterized throughout by four (4) significant factors.

1. The eight towns are enormously diverse. In many respects, aside from certain subsets of the eight, they have little in common. As Table 1 shows, they range in population from 4,288 to 67,191, in median family income from \$81,923 to \$186,058, in median single-family home value from \$372,500 to \$787,000, and in percentage of owner-occupancy from 59.1 per cent to 94.3 per cent.

Table 1
Participating Municipality Characteristics: 2009 U.S. Census

Municipality	Population	Land Area: Sq. Mi.	Median Family Income	Median Home Value	Percentage Owner Occupied
Ashland	15,381	12.4	\$116,600	\$385,700	83.2%
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Totals:	179,206	153.3			

2. Beyond multiple subsets of two or three of the eight, they lack common, day-to-day interaction in the delivery of public-safety services.
3. Four of the eight towns--50 per cent--were involved in two other RECC feasibility studies. Ashland and Hopkinton were part of a grant to Southborough; and Wayland and Sudbury were part of a feasibility study for which Sudbury itself was the grantee. With the exception of excellent participation by Hopkinton, this clearly affected the level of interest and effort on the part of the other three towns. This is reported not as a criticism but as a statement of fact.

4. Several of the towns stated from the beginning that their primary interest in participating in this Feasibility Study was the prospect of being able to use a regional pre-arraignment lockup for prisoners, not the opportunity to be part of a RECC.

The MRPSC's solicitation of these services focused on five (5) areas of special interest as specified at Pages Three through Six of the Scope of Work:

- **Site Selection:** The identification and ranking of at least five potentially appropriate sites for the RECC, consistent with the relevant national standard promulgated by the National Fire Protection Association (NFPA), known as NFPA 1221, "Standard for the Installation, Maintenance, and Use of Emergency Communications Systems," revised most recently in 2010.
- **Governance:** The framework for legal organization of the MRPSC including legislation and managerial decision-making among other things, with specific consideration of possible expansion to include other communities.
- **Staffing:** The number and classification of personnel needed for the full scope of the RECC's operations, including such considerations as recruitment and selection, compensation, training, qualifications and shift allocations.
- **Equipment:** The inventory of and recommendations regarding a range of assets from radio, telecommunications and fire alarms to Computer-aided Dispatching (CAD) and Records Management Systems (RMS).
- **Plan model:** The (1) roll-out plan involved in reaching out to stakeholders and (2) the business plan for bringing the RECC to operational status.

As discussed in Section Two of this Feasibility Study on Methodology, these areas of focus formed the basis for the organization of related Committees.

It is important to make certain observations about the organization and scope of this Feasibility Study.

- It recognizes the interdependence of the topics with which it is concerned. The major issues of site, staffing, technology, communications and financing are all closely interrelated: all share the same origin in scale.
- It recognizes the nature of the RECC as a start-up enterprise, needing new legislation, either as an amendment to the Massachusetts General Laws or a special act, and a totally new organization, developed over time, to become a successful reality.

- It appreciates the critical nature of emergency communications and the professionalism of those currently dedicated to this service.
- It applies wherever possible the widely recognized principle of *best practice*. This looks at how various aspects of the RECC, from the training of its personnel and implementation of standard operating procedures to its deployment of communications and information technology, compares with the state of the art among comparable agencies in the United States. This insight draws from: (1) accepted national standards promulgated by such leading professional organizations as the Association of Public-Safety Communications Officials-International (APCO); and (2) the combined experience of the consulting team in more than 180 public agencies in Massachusetts and across the United States.
- It applies the concept of *strategic positioning*. This means that the RECC, through its Board of Directors, should take actions in such areas as policy-making and procurement which establish the foundation for the RECC to function both in the short and longer terms as a high-performance organization. Strategic positioning for the RECC also considers changes which may occur in its environment such as the impact of growth in its membership, changes in technology, or other statutory, regulatory or judicial factors. Strategic positioning is often characterized as “buying smart, not cheap.”

This Feasibility Study followed a careful, systematic approach in addressing the full scope of work of this engagement. Key tasks here included:

- Conducting a Project Organizational Conference on the afternoon of April 13, 2011 at the Sherborn Police Department with a group of about 12 personnel from the Middlesex Sheriff's Office and six of the eight municipalities. This meeting was held to establish a common understanding of the specifics of the project plan and assure that all parties had clear agreement on the conduct of the project.
- Reviewing various documents such as: (1) NFPA 1221, Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, 2010 Edition; (2) APCO Project 33, Revised Minimum Training Standards for Public Safety Telecommunicators; and (3) APCO Project 40, Responsive Efforts To Address Integral Needs in Staffing (RETAINS).
- Working with MRPSC to organize Subcommittees including (1) Emergency Communications; (2) Computer Technology; and (3) Site Selection. The Steering Committee and subcommittees met for the purpose of airing a wide range of ideas regarding the Feasibility Study. These sessions resulted in full and frank discussion which was very helpful to Webb Consulting Services in the execution of this engagement and the formulation of findings and recommendations. About 30 individuals participated in meetings of the various Subcommittees.

- Interviewing more than 20 personnel from the Middlesex Sheriff's Office and all eight municipalities in their respective offices. These interviews were conducted by two members of the Webb Consulting Services project team with the municipal manager/administrator/selectman, police chief, fire chief and sometimes members of their staff in each of the eight towns. The interviews used a standard approach and were critical to providing the particular perspective of these agencies which formed a significant part of the informational foundation for this Feasibility Study. Many subsequent visits and conversations took place to address various aspects of this Feasibility Study in greater detail. The consulting team also reached out to current contractors, often at the suggestion of local officials, to obtain critical information in such areas as call volume as well as radio and communications infrastructure.
- Circulating a Request for Information (RFI) document to 12 vendors of public-safety computer systems for multi-agency, multi-discipline environments like the MRPSC throughout the United States in order to obtain information on estimated costs of procuring and implementing new computer systems and related technologies for the RECC and the towns. Responses were received from 6 vendors.
- Meeting with the MRPSC on September 15, 2011 to review the draft of the Feasibility Study. More than a dozen officials from the Middlesex Sheriff's Office and the eight municipalities participated in this session at the Framingham Police Department. This meeting provided an important opportunity for Webb Consulting Services to present the basis for the findings and recommendations of the Feasibility Study and for MRPSC's members to provide input for incorporation into the final work product.
- Revising the Feasibility Study as a result of the draft-review meeting and preparing it for final presentation.

This process resulted in full and frank discussion. All aspects of this Feasibility Study have been reviewed and discussed thoroughly with the participants. As well, each of these tasks contributed significantly to the development of the Feasibility Study.

Recommendations for funds are presented on the basis of a five-year lifecycle. This has the advantage of combining all costs into a single framework, based on the Commonwealth of Massachusetts Uniform Municipal Accounting System (UMAS) and producing an average annual cost over five years. In this way, each town interested in participating will be able to make well informed decisions regarding the fiscal impact of membership. In addition, these financial requirements are then used to build the billing model included in this Feasibility Study.

This Feasibility Study makes specific recommendations for funding. At the same time, one is obliged to be conservative in expectations regarding the availability of funds from the U.S. Government, the Commonwealth or other sources. The towns should make every possible effort to secure

intergovernmental and extra-governmental funding while recognizing the well-known fiscal constraints facing the State and Federal governments.

Transition from the current arrangement of individual municipal emergency-communications facilities to the new, fully centralized RECC also presents significant challenges. For example:

- There is no statutory authority in Massachusetts for creating regional emergency communications centers. A bill, Senate, 2037, was before the Senate Ways and Means Committee at the time of submission of this Feasibility Study. It would amend the Massachusetts General Laws, providing uniform enabling legislation regarding the organization and operation of RECCs throughout the Commonwealth. However, no final action had been taken at the time of submission of this Feasibility Study.
- Where transitioning of current emergency-communications employees of the towns to employment with the RECC has been a topic of prime importance, it will be very difficult to provide for their (re)training in such areas as new communications and computing technologies or standard operating procedures while they are working full-time in their current position.
- Absent its establishment as a legal, statutory entity and its funding, the RECC will not have the authority to take actions which may require substantial lead time. This includes such things as the detailed architectural and construction work needed to ready the new RECC's facility, the procurement and implementation of communications and computing technology, and the hiring and training of staff. This Feasibility Study estimates that lead time of 24 months will be required from formal organization of the RECC as a governmental entity to its initial operation delivering these public-safety services.
- Most, if not all, of the eight participating towns will need to make individual decisions about how to address functions which their respective dispatchers now perform in addition to their dispatching duties. This includes such things as reception of visitors, monitoring of prisoners, and various administrative-support tasks.

Most critical in having the RECC materialize and succeed will be the leadership and dedication of the participating towns' selectmen and key staff in their municipal management, police and fire services, information technology and other disciplines. Only in this way can the enormous change which the RECC represents be as successful as possible.

KEY FINDINGS AND RECOMMENDATIONS OF THE FEASIBILITY STUDY

The paragraphs which follow in this Executive Summary present key findings and recommendations of this Feasibility Study.

1. The RECC should bring substantially enhanced emergency services for all of the agencies involved and populations served. This occurs mainly through completely professionalizing its core telecommunications function, supported by implementing state-of-the-art information and emergency-communications technology, RECC-wide coordination of emergency-services resources and information sharing, and improved interoperability of communications.

The RECC should bring a lower total annualized cost for six of its eight members. The eight original towns would save a total of \$147,007 per year. This incorporates all operating and capital costs including borrowing for the procurement of capital assets.

The estimated costs and savings here do not consider any financial aid from the Commonwealth, United States Government or other source. Depending on the level of financial assistance, this could have a relatively dramatic effect on the annual cost to the towns, possibly saving them collectively as much as approximately \$500,000 per year for a total of roughly \$2,500,000 over five years.

2. While the RECC must keep its focus on its main purpose of providing emergency-communications services, it must be fully capable of handling all non-emergency calls it receives from its first day of operation. This is significant since this Feasibility Study estimates that the RECC will be receiving 180,000 non-emergency and 140,000 emergency calls per year.
3. The Towns in the MRPSC should extend every reasonable effort in support of Senate 2037, the bill now before the General Court which would amend the Massachusetts General Laws to enable the organization of this kind of regional emergency communications agency on a state-wide basis.

No such law exists today, leaving the MRPSC with no statutory basis to provide the two critical elements of its governance: the institutional platform and the organization and functioning of the governing body.

4. The “Go Live” date for the new RECC is expected at October 1, 2015. This is a function mainly of the following factors:
 - The expected date of May 31, 2013 for formal organization of the RECC, presuming passage of the enabling legislation during calendar year by June 30, 2012;

- Prospective towns' deciding about membership no later than May 31, 2013, following the towns' jointly drafting an inter-municipal agreement addressing such issues fundamentally critical to their decision-making about joining the RECC as the apportionment of votes and financial obligations;
 - The 21 months thereafter required to design, bid and build the RECC's new building; and
 - Having three months prior to the October 15, 2015 "Go Live" date with all physical and organizational infrastructure in place.
5. The new legislation should authorize borrowing by the RECC and similar agencies, consistent with the respective terms in years for various purposes of the Massachusetts General Laws.
 6. The RECC should require a minimum contractual commitment to municipal membership of 10 years in order to assure the RECC of institutional and fiscal stability. This is especially important, given the nature of its function and the need to be able to borrow for major one-time costs for such things as a new building and various computing and communications technologies. The RECC's Board of Directors would be responsible for deciding what kinds of financial terms and conditions would apply to any new agencies which may want to join the RECC after its initial organization.
 7. The board of selectmen in a town, in cooperation with the town manager/administrator and chiefs, should be authorized to take all actions necessary to join the RECC and take all other votes related to the RECC.
 8. The RECC's Board of Directors ought to be representative of its major stakeholders, including:
 - Municipal chief administrative officers (e.g., town manager/administrator).
 - Police chiefs.
 - Fire chiefs.
 9. The RECC should have as a goal from the outset its achieving and maintaining high performance measured in such ways as accreditation from the Public Safety Communications Accreditation Program of the Commission on Accreditation for Law Enforcement Agencies (CALEA).
 10. The RECC should fund membership for itself, its Board of Directors and all staff in leading professional organizations of specific value to the RECC such as the Association of Public Safety Communications Officials International (APCO) and the National Emergency Number Association (NENA). Achieving and sustaining high performance requires that the RECC, its leadership and all employees have access to state-of-the-art knowledge about various aspects of emergency communications and other disciplines related to the RECC's policy-making, management and operations.

11. Telecommunications staffing for the RECC should follow a call taker/dispatcher model because of the very high volume of non-emergency calls which the RECC is estimated to receive—a ratio of roughly 1.3:1. This amounts to approximately 180,000 non-emergency and 140,000 emergency calls per year.
12. Staffing of the RECC follows a “lean and mean” philosophy. While the RECC has 28 professional telecommunicators, it otherwise has just 5 IT staff and 4 administrative staff. Staffing is also minimized through the use of targeted outsourcing of professional services.
13. This Feasibility Study takes a relatively generous view of staffing of the telecommunications function in order to provide a high level of service to callers from the very outset of the RECC’s operations.
14. The RECC will need to plan fully and fairly for transitioning the employment of current civilian dispatchers among the towns to the new RECC, providing comparable wages, benefits and working conditions.
15. Training on an on-going basis will be critical both to the successful launch of the RECC and to its on-going success.
16. The procurement, implementation and on-going management of the RECC’s new fully integrated, multi-discipline, multi-jurisdictional Computer-aided Dispatching/Records Management System (CAD/RMS) system will be among the most difficult challenges the RECC faces both in its launch and over the years. This new system will sit at the core of the RECC’s supporting not only its internal staff but also several hundred users among its member-agencies.
17. All of the RECC’s information and communications systems must meet Commonwealth and U.S. Government standards in such areas as data exchange and interoperability.
18. The procurement, implementation and on-going management of the RECC’s new radio and communications infrastructure will present the same challenges as the CAD/RMS system.
19. All frequencies that now appear in each municipal police or fire department need to be carried over to the new RECC in order for it to have complete capability to communicate with all emergency-services agencies and personnel.
20. All present remote radio sites, towers and poles will need to be reused. This is an essential element of connectivity for the new RECC, helping to assure the same coverage among the towns as they presently have with no need to renegotiate private sites or build duplicate facilities.

21. A future engineering study will be needed to determine a large level of detail which goes far beyond this Feasibility Study. This engineering study will need to address such issues as:
 - Microwave sites in each municipality and related costs.
 - Line of sight, path and links.
 - Final costs of fiber optic connectivity including such things as location and amount of splices, route build out, electronics and available dark fiber.

22. A careful and deliberate site-selection process, applying user-developed weighted-factor criteria and standards articulated in NFPA 1221, identified 13 sites originally and produced detailed evaluation of eight. Three sites involving vacant land received top ranking, including:
 - Part of the Adesa land in Sherborn.
 - Part of the National Guard site on Speen Street in Natick.
 - Land adjacent to the Framingham DPW on Western Avenue.

23. The RECC Planning Board will need to decide where to locate the backup site for the RECC. This decision cannot be made at this time since a single site for the RECC has not been identified. The backup site should be relatively distant from the primary site and be able to accommodate the number of telecommunicators' positions that will be needed as well as the technology (e.g., backup CAD/RMS system and communications) during its periods of service.

24. The RECC and its member-municipalities must meet the FCC's narrowband deadline of January 1, 2013.

25. The RECC requires primary and backup emergency communications infrastructure in order to assure uninterrupted operations as far as possible.

26. The RECC must be sensitive to the emergency-communications needs of specific populations such as the handicapped, senior citizens and linguistic minorities.

27. This Feasibility Study presents a complete, line-item budget for five years, including the cost of all anticipated operating and capital expenditures, conforming with the Commonwealth's Uniform Municipal Accounting System (UMAS). It incorporates expected increases in various costs as a result of inflation, recognizing the uncertainty inherent in this effort,

28. Billing for membership in the RECC should be based solely on population until there is specific information from the RECC's new CAD/RMS and telecommunications systems to provide consistent information on such factors as the number of emergency or non-emergency calls related to each municipality. The Board of Directors should then adopt a methodology for billing which is equitable, transparent, easy to administer and readily understandable to non-technical personnel.
29. The original group of eight towns may be able to benefit immediately and directly by actively soliciting the participation of one or more municipalities as a "charter member" of the RECC. This would be especially true, should the new town(s) not have a significant marginal impact on call volume requiring any major increase in personnel.
30. The RECC should pursue all available avenues in seeking financial assistance from the Commonwealth and U.S. Government. The Commonwealth's RECC Development Grant program, administered by the State 911 Department, may be the most promising here. The next round of grant applications for this program is expected to be due around May, 2012.
31. The RECC should look continuously to resources such the U. S. Government's General Services Administration (GSA) and the Commonwealth's Information Technology Services (ITS) contracts as key resources in its procurement, especially of information and communication technologies.
32. The rollout plan in this Feasibility Study takes a conservative view of the time required for each task in the development and implementation of the RECC. This includes transitioning one member-agency to fully operational status in the new RECC every two months in order to be sure that all issues in this process and the RECC's "live" operation are addressed fully and well before any additional member-agency is added in production operations.
33. The Towns may continue to be responsible for various local costs, whether one-time or continuing. These may include such things as conversion of their data, integration of Geographic Information Systems (GIS), procurement and implementation of mobile computing terminals (MCTs), and construction and maintenance of fiber optic cabling, microwave radio systems or other emergency communications infrastructure. The policy regarding these items should be specified in the report of the RECC District Planning board and the inter-municipal agreement.
34. The MRPSC should establish a Web site as soon as possible in order to enhance communication with local officials and the public. In this same connection, MRPSC also should begin to communicate formally with local legislators and key local officials in potential member-agencies.

Section One

Project Background

This Regional Emergency Communications Center (RECC) Feasibility Study and Plan (the Feasibility Study) grew out of conversations which began early in 2010 involving local officials of eight towns in the MetroWest area of Middlesex County. These towns included Ashland, Framingham, Holliston, Hopkinton, Natick, Sherborn, Sudbury and Wayland. Altogether, the eight towns comprised a population of 179,206 and a land area of 153.3 square miles. The Middlesex Sheriff's Office (MSO) served as grantee for the grant from the Commonwealth of Massachusetts, Executive Office of Public Safety and Security (EOPSS), State 911 Department which funded the full cost of the Feasibility Study. The Towns and MSO collectively were known as the MetroWest Regional Public Safety Council (MRPSC).

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This Feasibility Study uses several acronyms and short names for purposes of easy reference. These include in alphabetical order:

APCO	Association of Public-Safety Communications Officials-International, Inc.
CAD	Computer-aided Dispatch
CALEA	Commission on Accreditation for Law Enforcement Agencies
CIP	Capital Improvement Program
CMED	Coordinated Emergency Medical Direction
CY	Calendar Year
DOR	Massachusetts Department of Revenue
EMS	Emergency Medical Services
EOPSS	Commonwealth’s Executive Office of Public Safety and Security
FCC	Federal Communications Commission
FTE	Full-Time-Equivalent Personnel
FY	Fiscal Year
GIS	Geographic Information Systems
IT	Information Technology
MCT	Mobile Computing Terminal

MGL	Massachusetts General Laws
MRPSC	MetroWest Regional Public Safety Council
MSO	Middlesex Sheriff's Office
NENA	National Emergency Number Association
NFPA	National Fire Protection Association
PSAP	Public Safety Answering Point
RECC	Regional Emergency Communications Center
RFI	Request for Information
RFP/RFR	Request for Proposals/Request for Response
RMS	Record Management Systems
UMAS	Commonwealth Uniform Municipal Accounting System

Section Two **Methodology**

This Feasibility Study followed a careful, systematic approach in addressing the full scope of work of this engagement.

A. PROJECT ORGANIZATIONAL CONFERENCE

Webb Consulting Services' Project Team met on April 13, 2011 at the Sherborn Police Department with a group of approximately 12 personnel from the Middlesex Sheriff's Office and the eight participating municipalities. This meeting was held to establish a common understanding of the specifics of the project plan and assure that all parties had clear agreement on the conduct of the project, i.e., project task schedule, who would participate in different project tasks and activities, what background information would be needed in the course of the project and what the respective responsibilities of the parties would be.

B. REVIEW OF BACKGROUND INFORMATION.

In order to understand the background to this effort, Webb Consulting Services' Project Team reviewed the following types of documents, among others:

- NFPA 1221, Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, 2010 Edition.
- APCO Project 33, Revised Minimum Training Standards for Public Safety Telecommunicators.
- APCO Project 40, Responsive Efforts To Address Integral Needs in Staffing (RETAINS).

These documents provided background which was important throughout this engagement.

C. REQUEST FOR INFORMATION.

A Request for Information (RFI) document was developed by the Webb Consulting Services' Project Team and reviewed by the MRPSC's Computer Technology Committee at its meeting at the Framingham Town Hall on July 28, 2011.

The RFI was intended to obtain information on estimated costs of procuring and implementing new computer systems and related technologies for the RECC and the towns. It was sent to 12 vendors of public-safety systems for multi-agency, multi-discipline environments like the MRPSC throughout the United States; responses were received from six vendors.

D. MRPSC COMMITTEE AND SUBCOMMITTEE MEETINGS

The Webb Consulting Services Project Team and the MRPSC worked together to organize four Subcommittees including (1) Emergency Communications; (2) Governance, Organization, Staffing and Finance; (3) Computer Technology; and (4) Site Selection. The Steering Committee and subcommittees met on the dates which follow.

Table 2
MRPSC Committee and Subcommittee Meetings

Date	Committee/Subcommittee
April 13, 2011	Project Organization Conference
July 26, 2011	Site Selection
July 28, 2011	Computer Technology
August 10, 2011	Site Selection
September 15, 2011	Steering Committee Draft Study Review

These meetings aired a wide range of ideas regarding various aspects of the Feasibility Study, resulting in full and frank discussions which was very helpful to the Webb Consulting Services Project Team in the execution of this engagement and the formulation of findings and recommendations.

E. INTERVIEWS.

The Webb Consulting Services Project Team conducted two sets of interviews in order to gain the particular perspective of each town, the MSO as well as current or prospective vendors, forming a significant part of the informational foundation for this Feasibility Study.

First, two members of the Webb Consulting Services Project Team together conducted interviews with the municipal manager/administrator/selectman, police chief, fire chief and sometimes members of their staff in each of the eight towns. Many subsequent visits, email messages and conversations took place to address various aspects of this Feasibility Study in greater detail.

Second, the consulting team reached out to current contractors, often at the suggestion of local officials, to obtain critical information in such areas as radio and communications infrastructure.

F. REVIEW OF THE DRAFT FEASIBILITY STUDY.

Upon completion of the draft of the Feasibility Study, the Webb Consulting Services' Project Team met with the MRPSC on September 15, 2011 to review the document. This session enabled (1) the consulting team to present the basis for its findings and recommendations and (2) the MRPSC's personnel to provide input and comment, which was incorporated into the final product, regarding the completeness and veracity of the information the Feasibility Study presented.

G. PRESENTATION OF FINAL FEASIBILITY STUDY.

After the review of the draft Feasibility Study and the incorporation of comments and input from MRPSC personnel, Webb Consulting Services presented a final version of the Feasibility Study.

Section Three Governance

Section Three: Governance Summary of Key Findings and Recommendations

1. No appropriate institutional platform exists today for the RECC as a public agency.
2. Similar kinds of regional emergency communications agencies, independent of county government or other governmental units, have operated successfully in other states for many decades.
3. The MRPSC should actively support Senate 2037, submitted by the State 911 Department and now before the Senate Ways and Means Committee. This bill would provide comprehensive legislation to enable the establishment and operation of this kind of regional emergency communications center on a State-wide basis.
4. The RECC should have a Board of Directors which includes representation, respectively, of (1) municipal chief administrative officers, police chiefs and fire chiefs and (2) an official of each municipality. This configuration combines the needed managerial skills of the municipal chief executives with the subject-matter knowledge and experience of the chiefs.
5. A minimum commitment to municipal membership of 10 years is necessary in order to assure the institutional and fiscal stability of the RECC.
6. As a public agency, the RECC should be proactive in making public its conduct of this critical public process through a web site and by other means.
7. The RECC should continue the four Committees established as part of the Feasibility Study and add Committees or Subcommittees as needed.
8. The RECC should seek recognition from CALEA as one means of striving for, achieving and maintaining high performance.
9. The RECC should fund membership for its Board and staff in leading professional associations such as APCO and NENA.

A. OVERVIEW.

Governance refers to two critical components of this Feasibility Study:

- Establishing the *institutional platform* for the RECC as a governmental agency with all of the authority, responsibility and accountability needed for its delivery of critical multi-jurisdictional, multi-disciplinary emergency services.
- Establishing the *governing body* of the RECC in such a way that the RECC is highly responsive to the towns while at the same time providing the independent, broadly capable leadership required both during the launch of the RECC and for the long term.

Until the institutional platform is in place, the RECC can take no formal action such as employing personnel or contracting for goods or services.

B. INSTITUTIONAL PLATFORM.

1. MRPSC should actively support the prompt enactment of Senate 2037, enabling the establishment of regional emergency communications centers on a State-wide basis.

No such enabling legislation exists today, leaving the MRPSC with no statutory basis to provide the two critical elements of its governance: (1) the institutional platform; and (2) the organization and functioning of the governing body.

Appendix A of this Feasibility Study includes the full text of Senate 2037 as of the date of submission of this Feasibility Study.

The State 911 Department, which drafted and filed this legislation, has direct responsibility for overseeing more than 25 regional emergency communications centers which are now in various phases of feasibility study or implementation. As the Commonwealth's key arm in this critical function, the State 911 Department has strong motivation to see that there is a consistent approach to the organization and functioning of these agencies across the Commonwealth.

The Commonwealth, through the recent Report of the Regionalization Advisory Commission (www.mass.gov/governor/regional), issued on April 30, 2010, has taken a leading role in this effort. Page 17 of the Regionalization Advisory Commission Report, repeated later at page 57, specifically recommends as follows:

Public Safety

- File special legislative acts to establish distinct regional enhanced 911/emergency communications entities, taking into account governance, funding mechanisms, and duties, compensation and other employment terms and conditions.
- Create legislation authorizing formation of regional enhanced 911/emergency communications districts, including establishment of governance, powers and duties funding mechanisms, fiscal accountability and employment/labor provisions.
- Review and possibly revise relevant statutes to further encourage and allow for ease of regionalization efforts: police districts, fire districts, police mutual aid, fire mutual aid, and consolidated municipal departments.

Under the heading of “Changes in state statutes” on pages 19 and 20, the Regionalization Advisory Commission Report discusses this subject both generally and with specific reference to “...consolidating the number of E911 public safety answering points.”

Appendix K of the Regionalization Advisory Commission Report, entitled “Public Safety Committee Report to the Regionalization Advisory Commission,” near its end recommends under the heading of “Suggested Incentives and Support:”

Add provision(s) to Chapter 6A Enhanced 911 Enabling statute or Chapter 41 Sections 99B – 99K “The Regional Police District Law” to allow formation of Regional Enhanced 911 Districts. The language should establish a uniform governance structure for the district and should account for employment and labor provisions in order to mitigate some of the challenges and barriers noted above. This should also establish the powers and duties of the district including assessments and funding mechanisms and should establish fiscal accountability.

Senate 2037 incorporates several key provisions which protect the interests of the towns in MRPSC individually and collectively:

- It makes membership in the RECC completely voluntary by vote of each town’s board of selectmen.
- It provides established, Massachusetts-specific solutions to potentially significant issues which the MRPSC may need to address such as borrowing of funds.
- It provides for the board of selectmen in each town to appoint the town’s representative(s) to the RECC’s board of directors.
- It has each town’s annual assessment for the RECC included as part of the Cherry Sheet like other special districts in the Commonwealth.

2. *The new legislation should authorize borrowing consistent with the terms in years of the Massachusetts General Laws.*

The RECC faces \$11-million of start-up costs which are critical to its launch and ongoing operations. Most significantly, this relates to three, essential investments, including the need to:

- Procure a site and construct the new RECC facility.
- Procure and implement the computing capabilities related to Computer-aided Dispatching (CAD), a Records Management System (RMS) and mobile-computing capabilities, all of which will be used by all of the RECC's members every day.
- Procure and implement the radio and communications systems to support the RECC's continuous operation.

Different sections of the Massachusetts General Laws authorize borrowing for these purposes for various lengths of time typically associated with their expected useful life. The minimum term of commitment to membership of 10 years also guarantees the revenue stream necessary for repayment of these obligations. (See Paragraph 4 which follows.)

Should a borrowing extend beyond 10 years for a purpose such as the building of the new RECC center, there is precedent in Massachusetts for having a member of the RECC, should they terminate their membership, continue to be legally obligated for payment of their share of a borrowing authorized during the term of their membership.

Senate 2037 in Section 18T(d) authorizes borrowing for a broad range of purposes "...for a term not exceeding twenty-five years...." This has the beneficial impact of minimizing as far as reasonably possible the impact of debt service for these purposes on the RECC's annual budget and, thus, the annual assessment paid by each town.

3. *The RECC should require a minimum contractual commitment to municipal membership of 10 years.*

From the outset, the RECC must assure itself of institutional and fiscal stability.

Given the nature of its function and the investment in one-time costs which are involved, 10 years should be the minimum commitment to membership of the municipal agencies who wish to become part of the RECC and share its benefits.

Section Nine of this Feasibility Study on Financial Management discusses costs for municipalities who join the RECC after its initial startup.

4. *The 911 regional emergency communication district planning board will need to meet after the submission of this Feasibility Study and address various issues related to the governance and implementation of the RECC.*

Senate 2037 in Section 18P details the scope of authority and responsibility of the 911 regional emergency communication district planning board (the RECC Planning Board).

One of the key responsibilities of the RECC Planning Board will be drafting the inter-municipal agreement for consideration by each town's board of selectmen in their deciding whether to join the RECC.

While Section 18P addresses a wide range of issues related to the organization and operation of the RECC, three likely will prove of most interest to the MRPSC's towns.

- How voting will be determined, especially given the large variance in population and other characteristics among the towns as this Feasibility Study has noted from the beginning.
- How one-time and annual costs will be assessed.
- How the RECC treats changes in membership whether by addition of new members or termination of existing members.

5. *The board of selectmen in a town should be authorized to take all actions necessary to (1) join the RECC and (2) take all other votes related to the RECC.*

Senate 2037 vests all decisions of this kind in the board of selectmen.

As one example Section 18S specifies that the board of selectmen in a town without a town council "... shall vote on the question of accepting such plan within forty-five days after receipt of the recommendation [from the RECC Planning Board]."

6. *Senate 2037 provides great flexibility for each RECC in its policy-making, management and operations.*

Section 18T enumerates the various powers and duties of a RECC in 14 specific subsections.

One of the noteworthy aspects of this arrangement is that the board of selectmen in each town makes all critical appointments related to the RECC, beginning with the three-person town study committee and the RECC planning board.

Thus, all decisions made about such critical matters as finances of the RECC, its policies, management and operations are controlled directly by the RECC's board, which consists of each town's representative as appointed by that town's board of selectmen. In this way, the towns collectively establish policy directly.

C. GOVERNANCE

1. The RECC's inter-municipal agreement will need to specify the composition of its Board of Directors.

The RECC's Board of Directors will be formed some time after the effective date of the legislation.

While it is not the role of this Feasibility Study to specify the composition of the RECC's Board, one can suggest a few, key principles:

- The Board should include a representative of each of the member-towns.
- The Board should include at least one representative of each of the major disciplines involved--municipal chief administrative officer (e.g., town manager/administrator), police chief and fire chief.

This representation helps to assure that the business of the RECC benefits from the knowledge and perspective of all key stakeholders. As well, it combines the needed fiscal and managerial skills of the municipal chief executives with the subject-matter knowledge and operational experience of the chiefs.

The inter-municipal agreement should *not* allow the delegation or designation of a substitute to vote on any matter at any meeting of the Board of Directors except in such cases as sickness or disability. Further, any member of the Board of Directors who misses more than two meetings of the board in any 12-month period would be automatically terminated as a member of the board and their position filled anew by the member-agency.

2. *The RECC's Board of Directors must be proactive in being open about its conduct of this critical public business.*

Especially as a new public agency dealing with highly sensitive issues of public safety, the RECC's Board of Directors should be extending every reasonable effort to keep its member-agencies and the public informed about its activities.

This should begin with the establishment of the RECC's Web site. Many similar RECCs around the United States have highly informative web sites which provide this kind of information without endangering the security of the RECC itself, its employees or members. Among these are:

Bucks County, Pennsylvania
(www.buckscounty.org/government/departments/EmergencyServices),

DuPage, Illinois Public Safety Communications
(www.ducomm.org)

Valley Communications Center, Washington
(www.valleycom.org)

- 3. The RECC should have standing committees and subcommittees to address areas of significance and report regularly to the Board of Directors.*

This Feasibility Study has benefited greatly from the contributions of various committees.

The four Committees which will be needed to serve the RECC as it goes forward include: (1) Site Selection, (2) Computer Technology, (3) Emergency Communications and (4) Governance, Organization, Staffing and Finance.

These four Committees and others may be helpful as implementation proceeds. One regular committee to be added, for example, should address public information. This would focus on items ranging from the MRPSC's Web site to media relations and other means of distributing public information. In addition, subcommittees could help to address specialized areas like Geographic Information Systems (GIS). GIS is a subspecialty of great complexity which even an experienced IT person might not know in the same way as a municipal GIS professional. This particular subcommittee should be organized as part of the Computer Technology Committee.

In addition, there should be emergency-discipline-based professional advisory committees of municipal police, fire and EMS managers. Each of these groups, respectively, should meet periodically (e.g., quarterly) or whenever requested by the RECC's Executive Director or Board. The professional advisory committees would advise the Board and Executive Director about issues either specific to their own discipline or cutting across multiple disciplines.

D. PERFORMANCE

- 1. The RECC should have as a goal from the outset its achieving and maintaining high performance measured in such ways as accreditation from CALEA or other professional organizations.*

As one example, CALEA (the Commission on Accreditation for Law Enforcement Agencies, Inc., (www.calea.org)) first established its Public Safety Communications Accreditation Program in partnership with APCO in 1999.

The more than 200 standards in this CALEA program take a comprehensive view of a RECC's policy-making, management and operations, addressing:

- Organization.
- Direction and supervision.
- Human resources.
- Recruitment, selection and promotion.
- Training.
- Operations.
- Critical incidents, special operations and Homeland Security.

High performance in organizations is a function to a significant degree of organizational culture. Part of the value of this kind of accreditation process is that it provides a structure and an objective benchmark for the RECC to a) set goals and objectives; and b) measure progress, contributing to a positive organizational culture.

2. The RECC should fund membership for itself, its Board of Directors and all staff in APCO, NENA and other professional organizations of specific value to the RECC.

Achieving and sustaining high performance requires that the RECC, its leadership and all employees have access to state-of-the-art knowledge about various aspects of emergency communications and other disciplines related to the RECC's policy-making, management and operations. This may range from management policies and practices to professional development of its personnel.

APCO and NENA are the two leading professional organizations in the highly specialized field of emergency communications. Thus, membership in these organizations is the only practicable way to help assure that the RECC functions in a manner that achieves and maintains best practice in every respect.

Section Four RECC Operations

Section Four: RECC Operations Summary of Key Findings and Recommendations

1. The RECC should bring substantially enhanced emergency services for all of the agencies involved and populations served.
2. The RECC brings a full-time focus on emergency-services communications which not all of the MRPSC's agencies now have.
3. The RECC's deployment of state-of-the art IT and emergency communications should be major contributors to its effectiveness.
4. A higher level of coordination of emergency-services assets - mainly personnel and equipment - should bring about better service for all member-agencies and the people they serve.
5. Improved information through shared technology and databases supports the delivery of services by the RECC and its member-agencies.
6. The RECC should bring a lower annualized cost of emergency communications for six of the eight towns.
7. Improved interoperability can be achieved in a way in which no single town or subset of towns could solve nearly as effectively by itself.
8. The RECC includes a fully operational backup site with IT and communications identical to what the RECC itself will be using. This provides a level of operational capability which exceeds what the towns themselves are now able to provide.
9. The RECC has substantially greater ability to respond to a surge in demand for enhanced 911 capacity because of its larger number of assigned staff and availability of extra dispatching positions.
10. Because of the nearly 1.3:1 ratio of non-emergency to emergency calls, the RECC needs to be fully capable of meeting this significant demand for non-emergency services from the first day of its operation.

A. OVERVIEW

RECC operations speaks to the actual delivery of RECC services as an emergency communications center.

Other sections of this Feasibility Study address the “how to” of planning, developing, implementing and operating the RECC, offering findings and recommendations on such topics as staffing, IT, emergency communications, financial management and governance.

This section concerns itself with *why* the MRPSC ought to be considering the establishment of the new RECC. In this respect, it sets the context for the Feasibility Study as a whole.

The two main considerations which an agency typically weighs in deciding whether to join a RECC like this are service and cost. Thus, this Section on RECC Operations concentrates on these characteristics of the RECC.

B. FINDINGS AND RECOMMENDATIONS

1. *The RECC should bring substantially enhanced emergency services for all of the agencies involved and populations served.*

All of MRPSC’s agencies are doing their very best under current circumstances to provide the highest level of emergency-communications services possible.

At the same time, the RECC provides the potential for significantly enhanced services for several reasons.

a. **Full-time focus on emergency-services communications.**

The RECC’s agencies currently present multiple scenarios for emergency communications. Examples follow.

- Sherborn and Holliston have police officers serving as telecommunicators in their PSAP’s. While this Feasibility Study recognizes the dedication of these personnel to this part of their work, *emergency-services telecommunications is not their permanent, professional assignment.*

Public-safety telecommunications in the twenty-first century is a complex and challenging profession. It requires a depth and breadth of knowledge, skill and experience which no one can maintain on a part-time basis. This results primarily from the demands of an increasingly complex and mobile society, the heightened risks of the post-September 11th environment and the demands of contemporary information technologies in emergency communications.

- Natick and Wayland have joint dispatching with civilian dispatchers. While the working environments are much closer to what the RECC would look like, they still have unrelated duties which take them away from their roles and responsibilities as telecommunicators. These range from acting as receiving agents for persons who enter their respective buildings to various administrative tasks. As dedicated and capable as these personnel are, unrelated distractions remain.

The RECC's telecommunicators have only one full-time job: public-safety communications. This enables them to focus completely on this critical work.

b. Enhanced technology.

The RECC is sufficiently large in scale that it should be an attractive prospect for the leading vendors in the United States of information and emergency-communications technologies. None of these so-called Tier I vendors now services any of the MRPSC's agencies.

The effects of this for the safety and security of the RECC's service-area population and emergency-services personnel are real and significant. As one example, none of the agencies today has true integration with a robust, fully deployed Geographic Information System (GIS). This integration of technologies has been common in leading public-safety systems around the United States for more than 10 years. It is fundamental to such basic requirements in public safety as determining those units with the requisite capabilities which can respond most quickly to a particular kind of incident.

c. Coordination of emergency-services resources.

The new CAD/RMS system should enable any dispatcher to call upon whatever assets - information, personnel or equipment - originating with any member-agency which may be most appropriate in responding to a call for service. This goes well beyond the normal operation of mutual aid since these resources are available to all towns from the very initiation of the dispatch. As one example, a Natick Fire company might be dispatched as the first responder to a Framingham incident since it would have the fastest response time and otherwise be suitable to responding to this call for service.

Implementing this new kind of paradigm for planning and managing the coordination of emergency-services resources on a multi-jurisdictional basis will require the full support of the RECC's Board of Directors as well as key officials among its member-agencies.

d. Improved information.

Depending on the security which the RECC's Board of Directors and its staff as well as the member-agencies may establish, the RECC should offer a major expansion of the information available to public-safety personnel in the member-agencies.

One example would be the ability of a law-enforcement officer in any one town to access in real time a system-wide Master Name Index (MNI). The MNI would contain information about any person who may have had any contact with any of the multiple towns at any time (within the limits of the database) for any reason germane to law enforcement. This would give the law-enforcement officer the ability to search for an individual on a much broader and more immediate basis than they could have otherwise.

Especially where the towns in the MRPSC are contiguous and criminal activity often occurs in this kind of continuous geo-based area, having access to this information ought to save time for the officer and enhance the effectiveness of law enforcement across the member-agencies and ultimately for the public.

e. Backup site which is fully operational.

The RECC includes a fully operational backup site with IT and communications identical to what the RECC itself will be using. This provides a level of operational capability which exceeds what the towns themselves are now able to provide.

f. Improvement in interoperability of communications.

The RECC will bring together all emergency communications among the towns. This goes a long way to addressing issues of interoperability which no single agency or subset of agencies could solve nearly as effectively by itself.

g. Enhanced 911 surge capacity.

The RECC provides a level of highly trained staff and sophisticated systems which no individual member-agency could afford by itself. Among other things, this includes three extra console positions to handle exactly this kind of surge as well as a larger number of dispatchers available in case of a major event. Thus, the RECC would be in a much better position than any of the individual towns could be by itself to respond to a surge in demand for emergency-communications services.

2. *The RECC should bring a lower total annualized cost.*

As Section Nine of this Feasibility Study on Financial Management shows, the eight original towns altogether would save a total of roughly \$147,000 per year, about \$735,000 over five years or \$1,470,000 over 10 years. This incorporates all operating and capital costs including borrowing for the procurement of capital assets.

The estimated costs and savings here do not consider any financial aid from the Commonwealth, United States Government or other sources. Depending on the level of financial assistance, this could have a relatively dramatic effect on the annual cost to the towns, possibly saving them collectively as much as approximately \$375,000 more for an annual combined total of roughly \$525,000 per year, \$2,625,000 over five years or \$5,250,000 over 10 years. Please see Table 30, Net Impact of Grants on Annual Assessment, for more detailed information.

3. *The RECC must be able to address the full range of non-emergency calls as well as providing emergency-communications services, providing both with full capability from the opening day.*

The Scope of Work for this Feasibility Study asked about having the RECC address 311 non-emergency calls as well as 911 or emergency calls.

Given the fact that non-emergency calls currently made to the towns' PSAP's are well more than the number of emergency calls - here, an estimated 180,000 to 140,000 per year, it is clear that the RECC must be fully capable of handling this relatively huge volume of non-emergency calls from day one.

This 1.3:1 ratio of non-emergency to emergency calls also has a fundamental effect on the relative staffing between call takers and dispatchers. This Feasibility Study assumes that a call taker should be able to handle a call, whether emergency or non-emergency, in not more than two minutes on average. Where NFPA 1221 states a benchmark of 15 seconds for answering a call, this would give the call taker almost two minutes either to (1) transfer an emergency call to the RECC's dispatchers or (2) forward a non-emergency call, e.g. to the appropriate department within a specified town or a third party.

Section Five Staffing

Section Five: Staffing Summary of Key Findings and Recommendations

1. Staffing in all aspects of the RECC's operations is determined by the nature and volume of calls it receives – here, an estimated total of approximately 320,000 calls per year including 180,000 non-emergency calls (56% of the total) and 140,000 emergency calls (44% of the total).
2. Staffing recommendations of this Feasibility Study follow the standards and methodologies of NFPA 1221 and APCO 40, combined with practical experience, intending to assure response to emergency calls which meets NFPA 1221 standards for fire calls and high performance for police and EMS calls.
3. Staffing needs to be allocated differently at different times to reflect the incidence of emergency and non-emergency calls by such factors as time of day and day of week.
4. The large percentage of non-emergency calls - 56 percent of the total - has a significant impact on the number and classification of telecommunicators at the RECC.
5. Staffing of the RECC follows the “lean and mean” guidelines set by the MRPSC.
6. Compensation must be competitive in order to be able to recruit and retain qualified personnel, especially in view of the RECC's substantial investment in specialized training.
7. The RECC must invest in training for all classifications of personnel both initially and on an on-going basis.
8. Transitioning of current municipal employees to the RECC and other employment-related issues will need to be addressed by the Board of Directors with labor counsel in the actual implementation of the RECC.
9. Staffing of the RECC's IT and communications functions will be critical and needs to take into consideration special factors such as its 7x24 operations and the relatively wide geographic area served.
10. Each town will need to make its own decisions about how to address functions which its dispatchers may now perform in addition to their dispatching duties. This may include such things as the reception of visitors, monitoring of prisoners or various administrative-support tasks.

A. OVERVIEW

Staffing is concerned with the personnel employed by the RECC - specifically, the classification of positions involved, the number of personnel overall and in each position, and the quality of personnel. Staffing is also affected by other characteristics of the RECC's operations and management such as (1) the quality of initial and on-going training which the RECC's personnel receive; and (2) the nature and quality of computing and communications technologies both at the RECC's facility itself as well as among the RECC's members.

B. RECOMMENDED STAFFING

This Feasibility Study is charged with assessing the full scope of staffing requirements for the RECC's successful operation. Executing this assessment relies both on (1) formal methodologies which are available for this purpose such as NFPA 1221 and APCO 40; and (2) the application of the consulting team's experience with these functions. Actual implementation of staffing may be different from what this Feasibility Study recommends, based on decisions which the Board of Directors may make from time to time.

Scale and the nature of the calls received dominate the discussion of staffing. The largest complement of staff – 28 positions out of a total of 37 - consists of call takers and dispatchers, whose respective numbers are perhaps the most direct function of scale as it regards staffing. Thus, the largest part of the discussion in this section focuses on the assessment of staffing for call takers and dispatchers. If scale should be modified, then staffing likewise would need to be modified and costs, thus, also would change.

This Feasibility Study recommends the call taker-dispatcher configuration based mainly on the very large percentage of non-emergency calls which the RECC is estimated to receive. Data included in this Feasibility Study show estimated non-emergency calls equaling 56 per cent of the total, or 180,000 of 320,000 total calls per year. This emphasizes having a relatively large percentage of call takers rather than only dispatchers. Thus, three call takers and four dispatchers are assigned to the day tour where only one or two call takers normally would be required on this tour for 140,000 emergency calls by themselves. This concentration of call takers on the day tour is a direct function of having the largest percentage of non-emergency calls occur (or expected) during those hours.

Table 3 summarizes the recommended complement and compensation of staff for the RECC. The subsections which follow address different classifications of staff.

Table 3
Summary of Estimated RECC Staffing and Salaries

Line	Position Classification	Avg. Annual Salary	Total Personnel	Total Salaries
1	Call Taker	\$40,000	9	\$360,000
2	Emergency Dispatcher	\$48,000	15	\$720,000
3	Working Supervisor	\$55,000	4	\$220,000
4	HR/Training Director	\$85,000	1	\$85,000
5	Executive Director	\$110,000	1	\$110,000
6	Executive Assistant	\$55,000	1	\$55,000
7	Chief Financial Officer	\$85,000	1	\$85,000
8	Chief Info Officer	\$95,000	1	\$95,000
9	Network & Security Manager	\$85,000	1	\$85,000
10	IT Support Specialist	\$70,000	2	\$140,000
11	Telecom Manager	\$85,000	1	\$85,000
		TOTALS:	37	2,036,000

Notes

1. The above noted salaries do not include benefits which would add approximately 35 percent (35%) of the salaries.
2. Salaries are based on current collective bargaining agreements for civilian dispatchers among the MRPSC's member-agencies and knowledge of comparable positions in the Greater Boston area, estimated as of January 1, 2014.

B.1 Communications Personnel

This subsection addresses staffing for Call Takers and Dispatchers as well as supervisory personnel involved in this function. Here, it is instructive to view the current emergency communications staffing of the participating towns as presented in Table 4, especially when compared with the recommendations of this Feasibility Study.

Table 4
Emergency Communications Current Staffing

Town	Police		Fire		Police-Fire-EMS		Total Staffing		
	Max/Tour	Total	Max/Tour	Total	Max/Tour	Total	Max/Tour	Total	
Ashland	1	5	0	0	0	0	1	5	
Framingham	3	10	1	4	N/A	N/A	4	14	
Hopkinton	1	5	1	5	0	0	2	10	
Hopkinton	1	5	0	0	0	0	1	5	
Natick	0	0	0	0	2	9	2	9	
Sherborn	0	0	0	0	1	5	1	5	
Sudbury	1	5	1	5	0	0	2	10	
Wayland	0	0	0	0	1	5	1	5	
Totals:	7	30	3	14	4	19	14	63	
Feasibility Study's Recommendation								7	28

The same methodology for determining recommended staffing applies to both Call Takers and Dispatchers. As Table 5 on the next page shows, this is rooted in the concept of *Net Available Work Hours Per Employee (NAWH)*.

In summary, NAWH begins by looking at the total number of hours an employee is available for work in the course of a year and then subtracts all leaves, training and other times when that person is not available to work. In the next step of the process, the net hours are then divided into the number of calls received per year, adjusted for the average duration of each call and the percentage of time in each hour the employee is actually available to receive or dispatch calls.

Table 5
Net Available Work Hours Per Employee (NAWH)

Item	Description	Number
A	Total Hours for One Full time Employee (37.5 X 52.2)	1,957.5
B	Average Vacation (15) and Holiday Leave (12) Hours	202.5
C	Average Sick Leave Hours	75.0
D	Average Personal Leave Hours	22.5
E	Average Training Hours	37.5
F	Average Military, FMLA, Etc. Leave Hours	37.5
G	Average Lunch and Break Hours (1/Day X 206 Days)	206.0
H	Average Other (Meetings, Light Duty, Special Assignments)	37.5
I	Total Unavailable Time (B through H):	618.5
J	Net Available Work Hours Per Employee (A through I)	1,339.0

Table 6 presents the respective volume of police, fire, EMS and non-emergency calls by town.

Table 7 applies the NAWH concept to the estimated number of emergency and non-emergency calls for the MRPSC RECC. This is not a simple cut-and-dried matter. For example, it is not easy to determine the mean time required to handle (1) police, fire or EMS emergency calls or (2) non-emergency calls.

Table 7 combines in one place the calculation of staffing for both call takers and dispatchers. This recognizes the specific characteristics of the work of (a) the call takers and (b) the dispatchers, respectively. The discussion of the time required for their respective services takes place in the context of well established and broadly accepted national standards as promulgated by NFPA 1221 and APCO 40.

The beauty of the methodology in Table 7 is that one can easily change the characteristics of call-handling or dispatching times and immediately see what effect this may have on the requirement for different types of staffing.

These calculations are based on the 4-and-2 work schedule which is dominant among the MRPSC's eight towns.

Table 6
Current Volume of Police, Fire, EMS and Non-Emergency Calls

Agency	2009 Population	Police Calls	Fire Calls	EMS Calls	Non-Emergency Calls
Ashland	15,381	15,388	391	534	30,000*
Framingham	67,191	35,430	w/PD	w/PD	30,000
Holliston	14,191	11,677	w/PD	w/PD	25,000
Hopkinton	14,656	12,510	943	864	14,000
Natick	32,335	17,824	w/PD	w/Fire	14,331
Sherborn	4,288	6,316	300	350	7,000
Sudbury	17,662	15,223	1,131	1,214	37,525
Wayland	13,502	12,153	2,406	1,143	20,000*
Totals:	179,206	126,521	5,171	4,105	177,856
Total Emergency Calls:			135,427	* - Estimated	
Total Non-Emergency Calls:			177,856		
Total: All Calls:			313,283		

The one situation which this Feasibility Study absolutely must avoid is underestimating the volume of calls. This would lead to a host of seriously negative consequences, beginning with having too few staff - especially telecommunicators to respond to calls - as well as a building that would be too small, a computer system and emergency communications that would be inadequate, and so forth.

Table 7
Call Taker and Dispatcher Staffing Options
320,000 Call Total: 180,000 Non-Emergency and 140,000 Emergency Calls

Line	Element	Call Taker 2 Minute Average		Dispatcher 4-Minute Average		Dispatcher 6-Minute Average		Dispatcher 8-Minute Average	
	Workload								
A	Total Call Volume Per Year	320,000		140,000		140,000		140,000	
B	Minutes per call	2		4		6		8	
C	Calls hourly (60/B)	30		15		10		7.5	
D	Workload in Hours (A/C)	10,667		9,333		14,000		18,667	
	Employee Availability								
E	Net Available Work Hours	1,339		1,339		1,339		1,339	
F	Agent Occupancy Rate	0.75	0.90	0.75	0.90	0.75	0.90	0.75	0.90
G	True Availability Per Person (E x F)	1,004	1,205	1,004	1,205	1,004	1,205	1,004	1,205
	Staff Needed								
H	Full Time Equivalent Base Estimate (FTE) D/G	10.62	8.85	9.29	7.74	13.94	11.62	18.59	15.49
I	Turnover Rate	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
J	FTE's Required: $H \times (1 + (1 - I))$	12.43	10.36	10.87	9.06	16.31	13.59	21.75	18.12

Call Takers: NFPA 1221 Section 6.4.2 reads as follows: “Ninety-five percent of all alarms shall be answered within 15 seconds, and 99 percent of alarms shall be answered within 40 seconds.”

Presuming that the RECC’s Call Takers meet the 95 per cent standard for answering within 15 seconds, an average call, whether emergency or non-emergency should be able to be **completed** by a Call Taker within two minutes. This gives the Call Taker ample time--1 minute and 45 seconds—either to (1) pass an emergency call to a Dispatcher; or (2), in the case of a non-emergency call, (a) provide the non-emergency information to the caller or (b) transfer the caller to another line (such as an appropriate office in the caller’s municipality) where they can be serviced directly.

Dispatchers: Two approaches can be taken to approximate the time required for a Dispatcher to complete an emergency call.

First, NFPA 1221 addresses fire alarms and law-enforcement dispatching separately. In the case of fire alarms, Section 6.4.3 reads: “Ninety-five percent of emergency dispatching shall be completed within 60 seconds.” The qualification here is that, while Section 6.4.3 addresses completion of dispatch, it does not speak to the dispatcher’s possible continuing involvement in an incident. Where this may involve circumstances such as mutual aid or a multiple-alarm incident, the dispatcher may have continuing involvement for a period of anywhere from several minutes to an hour or longer.

By contrast, NFPA 1221 does *not* set any similar standard for law enforcement, stating only in Section 6.4.4: “For law enforcement purposes, the authority having jurisdiction shall determine time frames for completion of dispatch.”

Second, APCO provides the alternate approach for law enforcement. As a general statement, a police emergency call may require as much as eight minutes.

At the same time, if fire and EMS emergencies are factored into this calculation, an overall average of six minutes is reasonable and should be presented here.

As one example of a real-world check on these numbers, a middle-sized RECC outside Massachusetts, in an area similar to MetroWest, reports the percentage distribution of durations for its calls presented in Table 8.

Table 8
Duration of RECC Calls: Comparable Agency

Row	Call Duration	Percentage Distribution
1	1 Minute or Less	38%
2	1 – 3 Minutes	47%
3	3 – 5 Minutes	10%
4	More Than 5 Minutes	5%
5	Total	100%

Allocating communications personnel to individual tours is the next challenge. In many ways, computing the total personnel needed in the position of call taker or dispatcher is the easy part. The main problem with respect to the allocation of communications personnel to tours is that there are no reliable data available today from the surveys of the towns or otherwise on which to base this kind of decision.

As a general statement, one may say that the overwhelming majority of *non-emergency* calls tends to occur during daytime hours (approximately 8:00 a.m. to 5:00 p.m.) and the highest demand for *emergency* calls occurs between approximately 5:00 p.m. and 1:00 a.m. Further, experience generally suggests that the highest concentration of emergency calls occurs on Friday and Saturday evenings. In light of this information, this Feasibility Study takes two approaches:

- It presents a staffing schedule which responds to the generally perceived incidence of emergency and non-emergency calls.
- It grants that it does not have a sufficient base of fact or knowledge to go further in recommending, for example, overlapping “fourth” shifts or similar approaches.

In addition, long experience with call centers shows that staffing does not operate as a direct, linear function of the number of calls: there are significant gains in the marginal number of calls which can be handled by staff as the volume of calls grows.

Ultimately, the RECC’s staffing for communications should meet both specific standards such as NFPA 1221 for fire calls and high performance for police and EMS calls.

Managerial and supervisory personnel are also critical for effective and efficient communications. This Feasibility Study recommends one Working Supervisor on every tour with the Executive Director overseeing all communications.

Table 9 presents the recommended allocation of staffing by tour for all classifications of personnel including communications.

Table 9
Staffing by Tour ¹

Line	Position	8:00 am 4:00 pm	4:00 pm 12:00 am	12:00 am 8:00 am
1	Call Taker	3	2	1
2	Dispatcher	4	4	2
3	Working Supervisor	1	1	1
4	HR/Training Director	1	---	---
5	Executive Director	1	---	---
6	Executive Assistant	1	---	---
7	Chief Financial Officer	1	---	---
8	CIO & IT Staff	4	On Call	On Call
9	Telecommunications Manager	1	On Call	On Call
10	TOTALS	17	7	4

1 - Assumes 140,000 emergency calls and 180,000 non-emergency calls, or a total of 320,000 calls per year.

B.2 Executive and Administrative Staff

The requirement for executive and administrative staff is, again, shaped by the scale of the RECC. This also follows the MRPSC’s stated direction of operating “lean and mean” and outsourcing support functions as appropriate.

These are the personnel who will be responsible for managing a 7x24 organization with a total of 35 personnel and an annual budget of \$5,250,000.

This Feasibility Study organizes the executive and administrative staff as follows:

- The **Executive Director** acts as chief executive officer of the RECC with overall responsibility for all aspects of its operations and management. This person should be a seasoned professional with extensive experience in various areas central to the RECC. Further, he/she should have a strong background in starting up an organization of this kind and guiding its growth and development.

- The *Executive Assistant* provides wide-ranging support to the Executive Director, CFO, CIO and Director of HR and Training. Among other things, this includes processing the day-to-day financial transactions under the direct supervision of the CFO. The Executive Assistant should have significant experience in a related executive-support position.
- The *Chief Financial Officer* is responsible for the administration of all finances ranging from payroll to accounting and revenue administration of this 35-employee, \$5,250,000 organization. This person should have full knowledge of governmental fund accounting and the ability to work with a sophisticated computer-based Integrated Financial Management System.
- The *Director of Human Resources and Training* provides hands-on management of the full scope of the RECC's Human Resources (HR) activities beginning with recruitment and selection in the context of the RECC as a public agency. Training takes on special significance, starting with the training program for new employees prior to the time they report to work. Best practice from other high-performance RECC's around the United States indicates pre-duty training of anywhere from two to nine months.

B.3 Information Systems Staffing

The Information Systems staff has wide-ranging responsibility for all of the RECC's IT-related resources.

The characteristics of the RECC's IT environment which follow help to put its requirements for IT staffing in perspective. The RECC's IT staff will be responsible for supporting:

- A \$2.492 million integrated CAD/RMS system.
- 35 local users at the RECC.
- 144 maximum concurrent remote users on a given tour in the various municipal agencies, spread over an area of more than 150 square miles.
- About 80 mobile data terminals in emergency vehicles.
- 7x24 operations at the RECC itself and among the eight towns.
- Integration and data exchange with numerous Commonwealth and U.S. Government agencies.

Because of their service-driven, 7x24 on-call responsibilities, the RECC's IT staff should be required as a condition of employment to live in proximity to the RECC and its service area.

This Feasibility Study recommends IT staff as follows:

- The **Chief Information Officer (CIO)** has overall, hands-on responsibility for the management and operation of all of the RECC's IT and communications-related assets and services. This person should have extensive experience in related applications of IT and communications, most preferably in the public sector with public safety.
- Two (2) **IT Support Specialists** dedicated to supporting users in the field among the RECC's eight towns. Ideally, these personnel should have background both in computer technology and telecommunications in order to service a wide range of support calls. The RECC may want to look for complementary capabilities between these two personnel. Moreover, the IT Support Specialists should live in different parts of the MRPSC area in order to assure the fastest response possible to calls for assistance from the towns.
- The **Network and Security Manager** administers all of the RECC's IT-related networks and manages security hand-on in all aspects. This person needs to work closely with other staff in the IT area and end-users.

The staffing for IT which this Feasibility Study recommends is a best estimate. The exact complement of staffing may very well vary as a function of factors which cannot be known specifically today. This includes such things as (1) the technical or operational nature or complexity of the CAD/RMS system which the RECC may procure and implement; or (2) decisions which the RECC's Board of Directors or local agencies may make about the specific information technologies (such as mobile data terminals (MDT's)) to be deployed.

B.4 Telecommunications Staffing

This Feasibility Study recommends that the MRPSC RECC address telecommunications support by a combination of (1) employing one full-time, experienced **Telecommunications Manager** and (2) contracting with specialized providers. The Telecommunications Manager would have hands-on responsibility for the full range of radio and communications supporting the RECC itself and the member-towns. Additional support for telecommunications may also come from either or both of the IT Support Specialists as one of their several duties, depending on their knowledge, skill and ability.

The Telecommunications Manager should reside in or near the MetroWest area.

B.5 Envelope Security and Support

Envelope security and support are achieved mainly through (1) compliance with NFPA 1221 in the design and construction of the RECC; and (2) the implementation of other common measures such as video surveillance and entry security both to the main site and its various components. Thus, there should not be any need for dedicated staff or contractors for this purpose.

For example, NFPA 1221 addresses concerns with the proximity and construction characteristics of adjacent structures. This Feasibility Study complies with these guidelines in the designs presented later in Diagram I in Section Five-Site and Building, which provide a secure envelope for the operations center both in the one-floor and two-floor configurations.

C. RECRUITMENT AND SELECTION

1. The RECC must place a specific emphasis on the quality of the process it uses to recruit and select all of its personnel.

Recruitment and selection are the bedrock of effective organization-building and performance.

The RECC faces the special challenge of recruiting and selecting personnel with sets of skills which are generally in short supply. This ranges from individuals with specific knowledge and certification as telecommunicators in the police, fire and EMS disciplines to people who have experience with state-of-the-art emergency-services application software.

Other RECC's around the United States have established very specific processes for recruitment and selection, particularly for call takers and dispatchers. These can be found on the web sites of various agencies such as those identified elsewhere in this Feasibility Study. The RECC's Board of Directors and local officials with expertise in this area should review these carefully with other staff and the Board of Directors.

Among other things, commercial firms offer a variety of tools for evaluation of candidates. These tools are tailored specifically to the knowledge, skill and ability which are particular to a candidate's functioning at a high level as a telecommunicator.

The Board of Directors and Executive Director will need to address recruitment and selection as soon as possible in the formation of the RECC. This includes discussing in depth the total package of compensation and benefits which will make the RECC highly competitive in the marketplace for this limited number of qualified personnel. This must also include consideration of other job-related factors such as opportunities for on-going training, professional development and promotion.

2. The possible transitioning of current emergency-communications personnel in the towns to employment with the RECC will need to be addressed.

The eight towns currently employ a total of 63 uniformed and civilian personnel working in emergency communications. The civilian personnel, in particular, have a legitimate concern with their continued employment with the RECC as it assumes the functions which they now perform with their respective towns.

This Feasibility Study is not charged with specifying a solution to this issue. Indeed, transitioning has substantial complexities which go far beyond the scope of work of this Feasibility Study, such as how it may affect the multiple employee-bargaining units involved. Further, transitioning raises other fundamental concerns such as assuring that those employees who make this transition are fully trained and qualified at the time they first report for work at the RECC.

In this connection, it will be important for the RECC's Board of Directors to commit itself to working through these issues constructively. This ought to involve engaging stakeholders, including collective-bargaining units, in the RECC's efforts to ensure that such concerns as working conditions and retirement benefits suffer no adverse effect from the establishment of the RECC and the transitioning process.

The RECC's Board of Directors and executive management will need to work with labor counsel as soon as possible to determine how to address transitioning.

3. Security is an essential part of the recruitment and selection process.

The RECC's operations fall within the purview of NCIC 2000, the program of the U.S. Department of Justice which "...is a nationwide information system dedicated to serving and supporting criminal justice agencies -- local, state, and federal -- in their mission to uphold the law and protect the public." See www.fbi.gov/hq/cjisd/ncic.htm

Guidelines of the FBI's Criminal Justice Information Services Division (CJIS) regulate strictly access by persons to secure areas, equipment and criminal-history records. Among other things, the CJIS guidelines require fingerprint-based record checks both within state and nationally. This applies to all such persons including, among others, support personnel, contractors and custodial workers.

The RECC will need to be sure that these security checks are carried out for all persons as appropriate in the course of its recruitment and selection process.

D. TRAINING

1. *Training on an on-going basis will be critical both to the successful launch of the RECC and to its on-going success.*

This Feasibility Study recommends a complement of personnel for the RECC which spans a wide range of skills. A few characteristics of training in the launch of the RECC are particularly important.

- a. Training should begin at least four months prior to the RECC's go-live date. This period provides for an organized approach to assuring that various classes of RECC personnel as well as municipal employees, such as police officers, firefighters and EMT's, have a full opportunity to learn what they need to know in a systematic manner. Part of this training should include evaluating the effectiveness of the training in different areas of knowledge and skill in order to assure that both RECC and local employees have mastered the subject matter important to their work.
- b. The RECC should assess each current or prospective employee's knowledge, skill and ability in order to tailor training to the specific requirements of their job. This assessment also helps to assure that the RECC is spending its time and funds as efficiently and effectively as possible.
- c. National standards ought to be followed in establishing training programs for the RECC's personnel. Professional organizations such as APCO have established specialized standards and curricula for public-safety communicators. APCO's Project 33 Revised, Minimum Training Standards for Public Safety Telecommunicators, has produced the National Public Safety Telecommunicator Training Standard, the foundation-document for these purposes. For instance, APCO offers the courses which follow among others:
 - Public Safety Telecommunicator I.
 - Communications Center Supervisor.
 - EMD Concepts.
 - Fire Service Communications.

APCO provides these courses by (1) on-site classroom training, which may extend for as much as a full week for single course and (2) on-line classes over the Internet.

The cost of these courses varies by their content, method of delivery and duration. As one example, APCO's all-inclusive cost for the five-day Public Safety Telecommunicator I course is \$7,700 and its fee for the four-day advanced Fire Service Communications Course is \$9,400. Each course can accommodate up to 25 students. Online courses, which can facilitate training for shift-based personnel, cost \$359 per student with a suggested limit of not more than three students from the same agency in the same course. The RECC's training facility should aid greatly both in (1) contributing to the efficiency and effectiveness of the RECC's providing these courses for its staff; and (2) minimizing its cost.

2. *The RECC must fund initial and on-going training for all classifications of its personnel as appropriate.*

Opportunities for training can represent a significant inducement to maximize retention of employees and minimize turnover. This Feasibility Study budgets \$20,000 one-time for initial training and then \$20,000 per year for employee development. Among other things, this considers the relatively high rate of turnover of staff at this kind of RECC, which APCO has identified at 17 per cent per year or about one out of every six telecommunications employees. The RECC can also limit the on-going cost of training by having senior personnel, such as shift supervisors, become certified through APCO as instructors.

The Executive Director, in consultation with other staff, should have standing authority from the Board of Directors to expend funds for training, within the limits of the budget, without the Board's further approval.

E. RETENTION OF STAFF

1. *The RECC's human resources strategy should follow the findings of APCO's Project RETAINS in order to maximize job satisfaction and minimize turnover.*

This Feasibility Study has consistently applied APCO'S research showing an average annual turnover of 17 per cent (17%) in telecommunicators' positions - or almost one out of every six employees per year. As APCO observes on its web site (www.apcointl.com), "...small and medium size agencies appear to be vulnerable to low retention rates in a given year because a few separations can have a dramatic impact on the retention rate." Also see APCO's *Staffing and Retention in Public Safety Communications Centers: A National Study* (August, 2005) at:

<http://www.911trainer.com/docs/APCOProjectRetains.pdf>.

APCO began Project 40, known as Project RETAINS (Responsive Efforts To Address Integral Needs in Staffing) in 1999 in order to address the issue of perceived high turnover in public safety communications centers. The research associated with Project RETAINS has identified key factors indicative of employee satisfaction and retention: (1) have a fully staffed center; (2) monthly overtime hours; (3) job complexity; (4) hourly base pay; and (5) working conditions.

Likewise, Project RETAINS found eight factors which predicted satisfaction: (1) center performance (management); (2) preparation and ongoing training; (3) appreciated by management; (4) shift-selection process; (5) effective mentoring of new trainees; (6) appreciated by immediate supervisor; (7) screening and application process; and (8) appreciated by the media.

This information has been updated most recently by the Project RETAINS: Next Gen study which has found that these factors remain generally consistent.

As the RECC develops its human-resources strategy, it will be critical to keep this information from APCO in the foreground and apply it diligently.

F. REMAINING LOCAL SERVICES

1. *Each town will need to make its own decisions about how to address functions which its dispatchers may now perform in addition to their dispatching duties. This may include such things as the reception of visitors, monitoring of prisoners or various administrative-support tasks.*

It is not uncommon for dispatchers in the majority of the eight towns to provide a variety of services not directly related to dispatching.

This Feasibility Study cannot make a single recommendation to resolve this situation for all eight towns because of the differences in their respective dispatchers' non-dispatch duties.

Each town will need to do several things in addressing this issue as the RECC process proceeds.

- Analyze carefully what the full scope of these unrelated duties is.
- Examine in detail the best way to accomplish these unrelated duties, should the town join the RECC and terminate its own dispatching function.
- Identify all fully loaded costs which the town would continue to incur in order to maintain these non-dispatching duties.
- Add or subtract these costs from the town's individual financial data presented in this Feasibility Study.

Section Six Information Technology and Systems

Section Six: Information Technology & Systems Summary of Key Findings and Recommendations

1. Procurement and implementation of a new, comprehensive and fully integrated CAD/RMS computer system is at the core of the RECC's efficient and effective operation and quality of service to its members and the people they serve.
2. The procurement of this new system will take about nine months. This effort must begin with a detailed needs assessment which addresses the particular functional requirements of each of the RECC's towns individually and all of the towns and the RECC itself collectively.
3. At least nine months after the execution of the vendor-contract will be required for pre-implementation tasks such as conversion and training before the new system can "go live" in production at the RECC.
4. The RECC will need to have appropriate IT staff in place in order to assure a high level of customer service both for its internal end-users and the towns.
5. IT staffing needs to consider the geographical extent of the MRPSC's service area.
6. A small number of vendors of public-safety systems has the experience which the RECC requires in implementing and supporting systems of this scale and scope in this same kind of multi-jurisdiction, multi-discipline regional environment.
7. The new system must conform with State and Federal standards, specifically the Global Justice XML Data Model (Global JXDM) for criminal-justice data as used by SWISS and the Massachusetts Fusion Center.
8. The RECC should develop a robust Web site in order to enhance its service to the public and secure, internal communication among both its staff and member-agencies.
9. The CAD/RMS system must be sized to function flawlessly at peak load and be scalable to accommodate possible growth in the RECC's membership.
10. The RECC's backup site needs to be equipped with a computer system identical to the primary site in order to provide flawless operation when needed.
11. Particular one-time or recurring costs related to IT will be borne by individual towns. This may include such things as (1) conversion of data from current systems; (2) the procurement of desktops, MDTs or printers; 3) development of GIS infrastructure; and 4) training of town personnel in the new system.

12. The RECC's new IT environment must provide a level of service at least equal to that which the towns experience now. No town should bear adverse consequences from the RECC's new system.

13. The RECC's Computer Technology Committee must take an active role in overseeing the procurement, implementation and ongoing operations of the new system.

14. Cost estimates in this Section Six are based on specific responses from six leading regional and national vendors to the Request for Information (RFI) reviewed by the Computer Technology Committee and sent originally to 12 vendors.

15. The RECC and its new vendor need to be capable of meeting the requirements of evolving information technologies including such things as NG9-1-1 and social media.

A. OVERVIEW

Information technology and systems (IT) sit at the core of the RECC's policy-making, operations and management. Consistent with the overall direction given to Webb Consulting Services by the Steering Committee, this discussion of IT is based on the complete centralization of almost all IT-related resources required by the RECC and its member-agencies.

The principle of *strategic positioning*, mentioned previously in this Feasibility Study, is also critical to the RECC's successful deployment of IT. This principle may be defined as "buy smart, not cheap". As one example, the RECC could save thousands of dollars by procuring something less than a fault-tolerant server. However, such an action would put at unacceptable risk the possibility of downtime in the RECC's operations and not constitute a fiscally prudent action for the longer term.

B. SCALE

1. *Scale drives almost all aspects of this Feasibility Study's consideration of IT.* In the case of IT, the number of emergency and non-emergency calls, combined with the respective numbers of concurrent CAD, RMS and Mobile users, are the main factors which affect the findings and recommendations of this Feasibility Study. One sees the elements of scale which follow as presented in the following tables.

- Emergency and Non-emergency Calls: 140,000 emergency and 180,000 non-emergency calls per year, totaling 320,000 calls.
- CAD Users: A maximum of 16 concurrent CAD users.
- RMS Users (including mobile): A maximum of 144 concurrent RMS users.
- Mobile Users: A maximum of 64 total and 24 concurrent.

2. *Strategic positioning* is especially important in relationship to scale and IT. The number of municipalities in the RECC and the associated population and number of emergency and non-emergency calls they bring are fundamental to how the RECC addresses *strategic positioning*.

The RECC must be thinking from the beginning about *strategic positioning* in its planning for, procurement and deployment of IT. As this Feasibility Study discusses later in this section, the concept of *strategic positioning* must be incorporated as a central, pervasive element in the original RFP and performance-based contract for the new system.

C. QUALITY OF IT SERVICE

1. *The RECC's new IT environment must provide a level of service at least equal to that which the towns experience now. No town should bear adverse consequences from the RECC's new system.*

The RECC achieves a high quality of service in its information systems by executing their initial procurement and implementation with extraordinary care. This starts with a needs assessment which is meticulous in addressing in specific detail the functional requirements of:

- Each town individually.
- The RECC itself.
- The RECC and the towns collectively.

Table 10 lists the applications which were included in the vendor survey. This list is comprehensive, addressing a wide range of functions typically included in this type of CAD/RMS system.

The Feasibility Study addresses the needs assessment, procurement and implementation of the CAD/RMS system in greater detail later in this section.

2. *The RECC's IT staffing must assure a high level of support for both its internal users and the end users in its towns, specifically considering the relatively large geographic extent of the RECC's service area.*

While this is a basic tenet of any high-performance IT organization, the MRPSC RECC adds the challenge of servicing an area of 153.3 square miles where the driving time from one end of the MRPSC area to another can easily range from 30 to 45 minutes or longer, depending on such factors as time of day and traffic.

As one example, service to the towns would be enhanced if each of the two IT Support Specialists lived in or near a different part of the RECC's service area.

While IT staffing will be discussed in greater detail later in this section, the total area of the RECC's member-agencies and the use of well proven, commercial-off-the-shelf (COTS) software systems should minimize the need for IT staff. As growth may occur in the RECC's membership or service area, IT staff may be added incrementally.

Consideration of outsourcing for specific IT-related services may also affect staffing.

Table 10
Scope of Applications

1. CAD	2. RMS	3. Support Functions	
Base CAD	Base RMS	Accounts Receivable	Wants/Warrants
GIS Integration	CAD Integration	Cash Receipts	Court Processing
AVL Integration	Mobile Access	Evidence Management	Stolen Property
RMS Integration	Police Incident Reporting: NIBRS	Traffic Citations	Master Name Index
Mobile Access	Fire Incident Reporting NFIRS	Traffic Accidents	Firearms Registration
Premises Information	EMS Incident Reporting	Personnel Scheduling	Property Maintenance
E911 Integration	NCIC/LEAPS	Training Records	Missing Persons
NCIC/LEAPS	SWISS Integration	Fleet Management	Motor Vehicles Towed
		Arrests and Booking	Motor Vehicles Stolen
		Field Investigation	Business Information
		Domestic Abuse	

4. Report Generator	5. GeoBase
6. Protocols	7. Web Incident Reporting
8. Web Activity Reports	

D. THE PROCUREMENT PROCESS

1. The procurement of the new CAD/RMS system will be among the most difficult challenges the RECC faces in its entire launch.

The procurement of this kind of fully integrated, multi-discipline, multi-jurisdictional system is complex, difficult, time-consuming and lengthy. Any efforts to short-cut this process only bring unacceptable risk of a disappointing and unsatisfactory implementation.

The RECC should follow the steps presented here in order to assure the highest probability of success in the actual deployment of the new system.

- a. ***Organize a broadly based users' committee on a formal basis.*** This group should have representatives from: (1) each municipality; (2) the community of municipal administrators, police chiefs, fire chiefs and telecommunicators, respectively; and (3) end-user representatives of various ranks and classifications, including collective-bargaining units. The RECC's Executive Director and CIO themselves should both sit on this committee because of its fundamental importance to the daily operation and strategic capabilities of the RECC.

It will also be important to have the participation of member-agency staff with specialized knowledge in critical areas such as GIS, mobile technologies, Web-based technologies and social media.

- b. ***Engage an experienced local government IT and public-safety consultant.*** The consultant should have specific knowledge both of (1) the local government process for procurement of sophisticated IT systems in Massachusetts; and (2) specific subject matter knowledge of public-safety systems.
- c. ***Establish a realistic timetable for carrying out the entire procurement process.*** About nine months will be required to complete this procurement, meeting highest and best practice. Table 11 shows the estimated duration of this process in calendar days.

Table 11
Estimated Timetable for Procurement of CAD/RMS System

Task	Days From Start
1. Organization of RECC Systems Committee	1
2. Project Organization Conference	7
3. Review Background Information	1 – 14
4. Project Workshop	14
5. Needs Assessment	1 – 45
6. Documents/Work Products (RFP and Contract)	1 – 145
Review with Committee and Revise Documents	60 – 75
Release RFP and Contract to Vendor	75
Responses Due from Vendors	145
7. Evaluation of Proposals	145 – 235
8. Vendor’s Conditional Execution of Contract	250
9. Presentation of Recommendations and Contract to RECC Board	260
10. RECC’s Execution of Contract	270

- d. ***Provide a Project Workshop as the first, key activity for involving staff from both the RECC and the towns in the procurement and implementation.*** The success of this engagement for the RECC rests to a large extent on the ability of its staff and the staff of the towns to understand their individual and collective needs and relate them to the nature of current and forthcoming computer technologies in public safety. These are the people who work most closely with IT and who hold the key to success in implementing the RECC’s new system.

The Project Workshop is a half-day session which should be repeated in the morning and afternoon in order to accommodate as many personnel from the RECC and its member-agencies as may be interested in participating. Attendance by at least three staff members from every town, including all disciplines, should be mandatory.

The workshop focuses on the current state of information technology of the same type that the RECC will be soliciting and deploying. Where the new systems to be solicited may very well exceed the functional capabilities used today by most of the prospective member-agencies, participation in the workshop will be extremely important in advancing the orientation and education of all users. The workshop serves to establish a basic conceptual "vocabulary" and to develop a sense of common interest throughout the organization.

- e. ***Carry out a detailed needs assessment including both the RECC and all of the member-agencies.*** The needs assessment should follow a structured process. One of the main challenges will be to specify the individual needs of each of the member-agencies and combine these with the needs of the RECC itself. As there may be as many as 40 or more different applications in the CAD/RMS system, this will be a major task. For example, the consultant will need to plan on spending one to two days on site with each member-agency.
- f. ***Inventory the IT-related resources of each member-agency.*** The inventory of current systems and resources establishes important baseline information. It identifies the resources which each member-agency currently has dedicated to these functions, how much they cost and how they may be able to continue to be used in the future, including:
- Application software.
 - System software.
 - Hardware.
 - Personnel.
 - Communications.
 - Outside services.
 - Other capital investments.
 - Other annual operating and maintenance (O & M) expenses.

Moreover, the inventory enables the towns to understand how these valuable resources might continue to be used - how they may be leveraged - as each member-agency enhances its IT environment for these functions. This helps each member-agency to maximize the value of its existing IT related resources while taking advantage of recent advances in IT.

- g. ***Draft the performance-based RFP and contract.*** The RFP and the contract are the two key documents which protect the interests of the RECC and its member-agencies both in the short and long term.

Both documents should be performance-based. This means that payment to the vendor, outside of an initial refundable deposit, is made only upon the successful use of the specified goods and services in "live" production for a 40 calendar day acceptance testing period.

In this connection, the performance-based contract and the RFP should be distributed together at the time of advertisement to all prospective vendors. Further, the significance of a prospective vendor's exceptions to the draft of the performance-based contract should be included among the comparative criteria in the evaluation of proposals.

The only firm which should be allowed to be the prime contractor in this procurement should be that business which is the author and licensor of the key CAD and RMS applications. System integrators should not be permitted to offer proposals in this procurement since they have no original or long-term ownership of the key deliverables. The major vendors of CAD and RMS systems for multi-jurisdictional, multi-disciplinary agencies like the MRPSC RECC are accustomed to serving as prime contractor in this very same kind of procurement and implementation with specific contractual provisions for long-term support.

- h. ***Identify prospective vendors and distribute the RFP and contract electronically.*** As part of the drafting of this Feasibility Study, Webb Consulting Services' Project Team identified 12 prospective vendors of systems for regional agencies of this type and six responded to the vendor survey.

This procurement would be carried out in conformity with Chapter 30B, the Commonwealth's Uniform Procurement Act. Thus, any vendor who might meet the RFP's minimum evaluation criteria and otherwise be deemed responsive and responsible would be qualified to propose and have its proposal receive full consideration in the evaluation.

This procurement process emphasizes the importance of establishing minimum and comparative evaluation criteria pursuant to Chapter 30B which are fair and open. This helps to assure that the RECC (1) receives proposals from vendors with the requisite experience and capability as identified in the minimum criteria; and (2) evaluates the vendors' proposals on a full and fair basis as embodied in the comparative criteria.

- i. ***Execute the evaluation of proposals fully and fairly.*** The RFP is likely to be several hundred pages long and the contract about 100 pages long. The RFP will have stated the criteria for evaluation in conformity with Chapter 30B. Thus, even where the RFP ought to be structured as a turnaround document to facilitate the work both of (1) the vendor in completing its proposal and (2) the RECC in evaluating proposals, the evaluation will be a long and challenging process. Completing the evaluation will take about three months from the receipt of proposals and should proceed through several steps as outlined in Chapter 30B and the Inspector General's Guidelines for the use of RFP procurements.

- j. *Negotiating and executing the performance-based contract.* The RECC's draft of the performance-based RFP will have been distributed electronically with the RFP to each vendor at the outset of the procurement. Thus, there should not be any outstanding issues with respect to the terms or conditions which would not have been disclosed previously. As a result, the negotiations ought to be able to focus exclusively on the plan of services - exactly when, how and by whom each deliverable is accomplished.

E. IMPLEMENTATION

1. *The new CAD/RMS system must be sized to function flawlessly at peak load.*

While the RECC is obliged to present the best information it has on such subjects as sizes of files and numbers of concurrent CAD and RMS users, it is the vendor's responsibility to propose and contract for a system which meets all performance-based requirements of this procurement. Only the vendor, not the RECC, can know the specific performance-based characteristics and resource requirements of its own system.

2. *The RECC will need to plan carefully for the implementation of the new CADS/RMS system, incorporating all key tasks in the plan of services prior to the execution of the contract with the successful vendor.*

Implementation begins immediately upon execution of the contract with the successful vendor.

This immediate phase, which is expected to last about nine months, is described as pre-implementation. It includes several significant and time-consuming tasks as follows.

- **Conversion.** The new vendor will need to convert multiple Police, Fire and EMS CAD and RMS systems from multiple vendors for multiple towns. Conversion may be expected to take about nine months and cost collectively for all eight towns about \$375,000. The cost per municipality for conversion of its Police and Fire CAD and RMS systems may vary widely, based on such factors as (1) the particular vendor and technology from which the conversion will be done; (2) the size of current files; and (3) the scope of applications to be converted for a particular town. The RECC's eight, core municipalities currently use three (3) different Police CAD and RMS systems, and five (5) different Fire CAD and RMS systems, three (3) of which are the same as Police CAD/RMS.

The MRPSC RECC's Board will also need to make a basic policy decision, which ought to be incorporated in the initial inter-municipal agreement, about how the cost of conversion is to be allocated. For example, should the RECC itself pay for all conversion for all towns, or should each town pay its own costs of conversions? Valid arguments can be made on both sides.

Table 12 summarizes information regarding current vendors and emergency calls by municipality and discipline.

Table 12
Current Systems and Emergency Calls

Agency	2009 Population	Police Calls	Police Vendor	Fire Calls*	EMS Calls	Fire Vendor
Ashland	15,381	15,388	IMC	391	534	ACS/FireHouse
Framingham	67,191	35,430	Keystone	w/PD	w/PD	Keystone
Holliston	14,191	11,677	IMC	w/PD	w/PD	ACS/FireHouse
Hopkinton	14,656	12,510	Pamet	943	864	In Devel.
Natick	32,335	17,824	IMC	w/PD	w/PD	IMC
Sherborn	4,288	6,316	IMC	300	350	ACS/FireHouse
Sudbury	17,662	15,223	Pamet	1,171	1,214	ACS/FireHouse
Wayland	13,502	12,153	Pamet	2,406	1,143	Pamet
Total:	179,206	126,521	-----	5,211	4,105	-----
Total Emergency Calls:		135,427	* - Fire includes EOTS calls			

- **Town end-user training.** The RECC potentially has several hundred end-user personnel throughout the towns that will need to be trained in various aspects of the new system. As one example of the significance and scale of this effort, this Feasibility Study includes \$300,000 or roughly \$1,000 per person for training of town personnel in the new CAD/RMS system. Each town will be responsible for the overtime or other compensation related to training of its own personnel.
- **RECC staff training.** The RECC's IT staff will need to become highly skilled in a number of new technologies, depending on each IT staff member's specific responsibilities as well as their previous knowledge, skill and experience. This technical training may also be expected in at least some cases to involve out-of-state travel to specialized courses provided by the prime contractor, its subcontractors or other parties. This Feasibility Study includes \$20,000 for training the RECC's IT staff and \$65,000 for training its end-users.

3. *The RECC's Computer Technology Committee must take an active role in overseeing the implementation.*

This group should include both RECC staff and town personnel, meeting at least monthly with the vendor's project manager in order to be sure that progress is being achieved as expected in accordance with the plan of services in the contract with the successful vendor.

Each meeting should have a formal agenda, prepared and distributed in advance to all participants. The agenda should focus on:

- Accomplishments over the last month;
- Outstanding issues to date.
- Activities for the current month.
- Preparations for tasks in the following month.

Minutes in detail should be prepared and circulated as soon as possible following each monthly meeting in order to have a formal record of what has transpired.

The RECC's CIO should be responsible for providing these minutes to the Executive Director, who then would keep the Board of Directors apprised of progress in the implementation of the RECC's new systems and its ongoing management and operation.

4. *The RECC must provide appropriate staffing for its IT function.*

The previous section of this Feasibility Study on Staffing presented the recommended complement of personnel for the RECC's IT function.

Having appropriate staffing in place will be as critical as any other factor in the immediate and long-term success of the RECC's deployment of IT. Table 13 summarizes the staffing recommended here.

Table 13
Estimated Staffing for Information Technology

Position Classification	Number
Chief Information Officer	1
Network and Security Manager	1
IT Support Specialist	2
Telecommunications Manager	1
TOTAL:	5

5. *Security must be a threshold consideration in the implementation of the RECC's new CAD/RMS system.*

This has to do with both a) the nature of information maintained by the system; and b) the several hundred personnel who will have some type of access to the system for various purposes.

This Feasibility Study recommends that the RECC employ an experienced Network and Security Manager to address these mission-critical concerns on a full-time basis.

6. *GIS resources which currently exist among the towns need to be presented in the RFP.*

GIS is a critical element of CAD/RMS systems. It forms a major part of the foundation of the CAD subsystem and supports many elements of the RMS subsystem.

The challenge for the MRPSC RECC is that GIS is in widely varying stages of development and emergency-services deployment among the eight towns from non-existent to robust. Moreover, the towns which now have GIS use multiple vendors.

The RECC must recognize the dominance of Environmental Science Research Institute (ESRI) in the public-safety space both in Massachusetts and across the United States. Most of the leading CAD/RMS vendors are ESRI business partners and have embedded ESRI's products in their systems. This collection of GIS resources is enormously important in implementing the RECC's new CAD/RMS system. It provides such capabilities as (1) real-time route optimization for all CAD calls, taking into consideration such factors as road or bridge closures, (2) enhanced data conversion and maintenance and (3) advanced analytics.

In a related vein, there may also be as-built plans of structures in electronic format using industry-leading products like AutoCAD. These should be able to be associated as attachments to addresses or incidents.

The RECC should anticipate the possible need to enlist the services of a GIS consultant to integrate the multiple GIS systems among the municipalities. This may be required, among other things, for constructing a fully integrated geobase of various layers, bring into a single, consolidated operating environment for CAD the current, disparate resources of the eight towns. Alternatively, the new CAD/RMS vendor may well provide these services for a specified cost which should be identified in the RFP, included in each vendor's proposal and incorporated in the contract for the new system.

The important question of policy which the RECC's board will need to decide is how to apportion costs of GIS infrastructure among (1) the RECC as a shared cost; or (2) individual municipalities as a local cost. This Feasibility Study includes \$200,000 for these GIS services for all eight towns or an average of \$25,000 each.

7. *The RECC's backup site must have IT resources of a type identical to the RECC itself.*

The RECC's staff needs to be able to move to the backup site and commence operations as quickly and flawlessly as possible in an emergency. This requires:

- a. A server running the complete portfolio of system and application software, identical to the server at the primary RECC site.
- b. As current a backup of the RECC system's files as possible.
- c. Mirror-image configurations of workstation hardware and software.
- d. Other communications facilities to support as much of the RECC's normal operations as possible during this emergency.

Based on the scale of the eight-town MRPSC RECC, this Feasibility Study recommends that the backup site be equipped with four (4) fully compatible telecommunicators' positions.

The budget in the next subsection of this section incorporates these capabilities. As one example, it includes a second fault-tolerant server.

8. *The RECC requires a fully equipped IT training room.*

The RECC will need to train several hundred town and RECC personnel initially. Then it must be able to provide (1) continuing training as current personnel in the RECC and its member-agencies may require from time to time; and (2) initial training for new personnel.

This Feasibility Study includes an IT training room with hardware for 12 positions, which is the maximum number of students in a single class for which training in these kinds of highly specialized applications can be provided efficiently and effectively.

9. *The RECC and its new vendor need to be capable of meeting the requirements of merging information technologies, including among other things NG9-1-1 and social media.*

The rapid pace of change in information technologies in public safety and emergency services presents significant, continuous challenges to agencies like the MRPSC RECC, their leadership, staff and member-agencies.

The two, leading examples of this recent evolution are NG9-1-1 and social media.

NG9-1-1 refers to the use of a standards-based Emergency Services Internet Protocol (IP) Network (ESInet) to enable emergency centers like the MRPSC RECC to integrate and interoperate more effectively with various devices, other agencies and the public.

NG, which stands for “Next Generation,” is intended to serve as the technological successor to the E911 services which have been common for more than 20 years. This recognizes the inability of E911 to incorporate such increasingly common technologies in emergency communications as text messages, images and video.

While some vendors of CAD/RMS systems state that they currently support NG9-1-1, this is an evolving technology both in terms of its standards and deployment.

NG9-1-1 is a good example of the principle of *strategic positioning* which this Feasibility Study has mentioned elsewhere. The MRPSC RECC needs to (1) monitor the development of NG9-1-1 continuously and (2) incorporate it in the RFP for the RECC’s new CAD/RMS system, following the approach to procurement presented earlier in this Section Six.

Social media refers to such technologies as Twitter and Facebook. These are being used increasingly in public safety and emergency services across the United States for one-way and two-way communication between agencies and the public.

The RECC’s approach to social media should follow what was presented regarding NG9-1-1.

F. COST OF THE NEW CAD/RMS SYSTEM

- 1. The one-time cost of the new CAD/RMS system is estimated at \$2,492,525 with annual costs of \$242,000.*

As noted previously, part of the scope of work in this Feasibility Study involved circulating a 23-page “Request for Information for Multi-Jurisdiction and Multi-Discipline CAD and RMS Turnkey System” to 12 prospective vendors. Responses were received from six (6) vendors and included in this analysis.

The estimated one-time and annual costs presented in this Feasibility Study are based on a combination of these vendors’ responses to the Request for Information (RFI) and the Webb Consulting Services’ Project Team’s experience. The characteristics of the new CAD/RMS system were stated as follows in the RFI, which was based on information available at that time and was reviewed by the Computer Technology Committee prior to its distribution to prospective vendors:

- **Emergency calls per year:** 60,000.
- **Non-emergency calls per year:** 600,000.
- **Maximum concurrent CAD users:** 16.
- **Maximum concurrent RMS users:** 144.
- **Mobile computing:** 64 total and 24 maximum concurrent.

As Section Nine of this Feasibility Study on Financial Management also addresses, the one-time cost for the RECC as a whole includes (1) conversion of the towns' current files and records for the various disciplines; (2) training of each agency's personnel; or (3) the upgrading, replacement or addition of such things as RMS workstations, printers or MCTs. This Feasibility Study's philosophy is that each member-agency should control these local decisions and bear the cost of implementing these decisions directly, rather than through the RECC's centralized budget.

Having said that, the RECC budget here includes some of these local costs since it is important to present a comprehensive cost as part of this Feasibility Study as far as possible. At some point, the RECC will need to make decisions about exactly which one-time or recurring costs related to IT will be charged back to each town and how this should be done.

The tables which follow present different views of cost-related information associated with information systems and the RECC.

- **Table 14-Computer Core System-Price Summary:** Presents the detailed information regarding one-time costs: (1) as submitted from vendors; and (2) with a summary in the column farthest to the right of this table entitled "Study Basis" for the amount for each line item used elsewhere throughout this Feasibility Study. Where cells for vendors have no information in their respective columns, this is because no such information was submitted by the respective vendor. Also, vendors are identified anonymously in order not to bias their consideration in any future procurement by the RECC.
- **Table 15-Computer System One-Time Costs:** Presents a summary of this information in more readily intelligible format.
- **Table 16-System Annual Operating Costs:** Shows all of the ongoing costs which the RECC should be anticipating. In several cases, these costs use percentages of the related one-time costs. These percentages approximate what tend to be industry standards.
- **Table 17-Cost of System Hardware:** Presents the cost per unit, total quantities and total costs for the key hardware components of the RECC's new CAD/RMS system. It breaks this out for (1) the core system at the RECC; (2) the hardware for the training room at the RECC; and (3) the hardware for the backup site.

Table 14
Computer Core System – Price Summary

Item	Vendor A	Vendor B	Vendor C	Vendor D	Vendor E	Vendor F	Study Basis
1. Hardware							\$237,425
2. Systems Software		\$67,750		\$8,000		\$25,500	\$50,000
3. Application Software							
a. Development Expense							\$100,000
b. One Time License Fee	\$423,306	\$848,220	\$702,880	\$100,000	\$590,757	\$248,500	\$750,000
c. Conversion	\$275,000	\$120,000	\$408,000	\$546,600	\$158,000	\$170,000	\$375,000
d. Legal Compliance			\$39,000	\$357,035			
e. Migration & Relicensing							
f. Systems Analysis	\$22,000		\$48,600				\$25,000
g. GIS Integration							\$200,000
h. Source Code Escrow							\$7,500
4. Proprietary & Special Software	\$82,300						\$50,000
5. Communications			\$15,114				\$15,000
6. Training							
a. RECC Technical Staff	\$186,790	\$20,000	\$25,100	\$4,800		\$10,800	\$20,000
b. RECC Staff End Users	Included	\$57,832	\$197,200	\$62,100		\$14,000	\$65,000
c. Town End Users							\$300,000
SUB-TOTAL (Page 1):	\$989,396	\$1,113,802	\$1,435,894	\$1,078,535	\$748,757	\$468,800	\$2,194,525

Table 14 (Continued)
Computer Core System – Price Summary

Item	Vendor A	Vendor B	Vendor C	Vendor D	Vendor E	Vendor F	Study Basis
7. Vendor Travel & Subsistence	W/APPS		\$60,000				\$60,000
8. Reuse of Current Systems							0
9. PC Integration							0
10. System Security							0
11. Manuals & Publications							0
12. Project Management	\$73,636	\$36,000	\$125,000	\$20,000		\$28,000	\$75,000
13. Operations Training (10 Days)		\$38,052		\$104,400	\$42,000	\$65,600	\$30,000
14. System Installation	\$207,586	\$95,600	\$36,500	\$1,500	\$166,390	\$8,400	\$45,000
15. Implementation Assistance		\$15,000					\$15,000
16. Contingency (3%)							\$72,600
Sub-Total (Page 2):	\$281,222	\$184,652	\$221,500	\$125,900	\$208,390	\$102,000	\$297,600
Sub-Total (Page 1):	\$989,386	\$1,113,802	\$1,435,894	\$1,078,535	\$748,757	\$468,800	\$2,194,925
Total One-Time Cost:	\$1,270,618	\$1,298,454	\$1,657,394	\$1,204,435	\$957,147	\$570,800	\$2,492,525

Table 15
Computer System One-Time Costs

Line	Description	Amount
1	Hardware	\$237,425
2	Systems Software	\$50,000
3	Application Software: One-Time License Fee	\$750,000
4	Application Software: All Other	\$707,500
5	Other Proprietary & Special Software	\$50,000
6	Communications	\$15,000
7	Training: RECC Technical Staff	\$20,000
8	Training: RECC Staff End Users	\$65,000
9	Training: Town End Users	\$300,000
10	Vendor Travel & Subsistence	\$60,000
11	Project Management	\$75,000
12	Operations Training (10 Days)	\$30,000
13	System Installation	\$45,000
14	Implementation Assistance	\$15,000
15	Contingency (3%)	\$72,600
	Total:	\$2,492,525

Table 16
System Annual Operating Costs

Line	Description	One-Time	Annual
1	Hardware (10%)	\$237,425	\$23,000
2	Systems Software (20%)	\$50,000	\$10,000
3	Application Software: One-Time License Fee (20%)	\$750,000	\$150,000
4	Application Software: All Other	\$707,500	\$15,000
5	Other Proprietary & Special Software (20%)	\$50,000	\$10,000
6	Training: Technical Staff	\$25,000	\$8,000
7	Training: End Users	\$300,000	\$20,000
8	Vendor Travel and Subsistence	\$125,000	\$6,000
	Annual Operating Cost:	-----	\$242,000

Table 17
Cost of System Hardware

Item Description	Qty	Unit Cost	Total Cost
A. CORE SYSTEM			
Servers: Fault Tolerant	1	\$45,000	\$45,000
CAD Stations*	16	\$1,800	\$28,800
PCs	3	\$1,000	\$3,000
Monitors: 19 Inch	48	\$300	\$14,400
Multi-function Printer: Color	1	\$450	\$450
Laser Printer: B&W	2	\$150	\$300
Laser Printer: Color	2	\$275	\$550
Wall Display Monitors	2	\$4,000	\$8,000
Mobile Computers*	6	\$8,000	\$48,000
Total Core System:			\$148,500
B. RECC TRAINING			
CAD Stations W/3 Monitors	12	\$1,800	\$21,600
Monitors: 19 Inch	36	\$300	\$10,800
Laser Printer: Color	1	\$275	\$275
Total Training Room:			\$32,675
C. BACKUP SITE			
Servers: Fault Tolerant	1	\$45,000	\$45,000
CAD Stations	4	\$1,800	\$7,200
Monitors: 19 Inch	12	\$300	\$3,600
MFP Color	1	\$450	\$450
Total Backup Site:			\$56,250
Total Hardware Cost:			\$237,425

* The 16 CAD stations are provided for all 10 console positions, the Executive Director and all 5 IT staff. The 6 mobile computers are provided for the Executive Director and all 5 IT staff.

G. INTEROPERABILITY

1. *The RECC's systems must meet current and emerging standards for interoperability.*

Massachusetts is following the U. S. Government Department of Justice's Global Justice XML Data Model (Global JXDM) for criminal-justice data through the State-wide Information Sharing System in Massachusetts, known as SWISS, in its work in connection with the Commonwealth Fusion Center. Managed by the Commonwealth's Executive Office of Public Safety and Security (EOPSS) and the Massachusetts State Police (MSP), the Fusion Center relies on two-way communication of data following the Global JXDM standard.

In this connection, EOPSS has mapped out how the marketplace can comply with this standard in the systems they provide to local-government public-safety agencies like the RECC.

In addition, the U.S. Department of Justice's Global Reference Architecture (GRA), formerly known as the Justice Reference Architecture (JRA), provides a service-oriented-architecture (SOA) reference model which represents the next generation of information sharing among justice agencies.

The RECC's RFP for the new CAD/RMS system will need to specify universal compliance with the Global JXDM standard and ask about plans for GRA implementation.

The RECC's CAD/RMS system also will need to be able to generate reports from the towns to the Commonwealth and U.S. Government related to such requirements as the Commonwealth's Criminal Justice Information System (CJIS), the Federal Bureau of Investigation's National Incident Based Reporting System (NIBRS) and the U.S. Fire Administration's National Fire Incident Reporting System (NFIRS).

H. OUTSOURCING.

1. *The RECC should be fully aware of all aspects of outsourcing as it may consider this option for services.*

As one example, this Feasibility Study noted previously in Section Four: Staffing, that "Guidelines of the FBI's Criminal Justice Information Services Division (CJIS) regulate strictly the access by persons to secure areas, equipment and criminal-history records. Among other things, the CJIS guidelines require fingerprint-based record checks both within state and nationally. This applies to all such persons including among others support personnel, contractors and custodial workers."

Thus, the RECC must exercise special care in considering the outsourcing of IT-related services: it does not have the ability simply to contract with any vendor for any vendor's employee to do work related to the RECC's information systems.

Section Seven Site and Building

Section Seven –Site and Building Summary of Key Findings and Recommendations

1. Site-selection criteria were developed by the Site Selection Committee, based on NFPA 1221 as well as the combined experience, knowledge and perspective of the Committee’s members and the consulting team.
2. The Committee initially identified 13 possible sites and, following its site survey, identified 8 for full evaluation where it applied the weighted-factor site-selection criteria. This included reaching consensus among the Committee on the top three sites, all of which happen to be vacant land.
3. Facility size was determined by combining (a) the programmatic requirements as set forth in the scope of work for the Feasibility Study and (b) the staffing plan.
4. Hard and soft costs have been calculated based on program-use components and assuming new construction on a vacant site.
5. Building plan diagrams are presented for optimal program organizations involving, respectively (1) one floor; or (2) two floors.
6. One must keep in mind the substantial uncertainty regarding fluctuation in construction cost.
7. The time from signing of all contracts for professional services to completion of construction is estimated at 21 months.
8. MRPSC should ask NERAC to do a full threat and risk assessment of any prospective site.
9. Envelope and site security is achieved mainly through compliance with NFPA 1221.
10. Borrowing for 20 years (or longer if possible) is recommended to finance the new RECC, recognizing the substantial uncertainties currently existing in the bond market for state and local governmental entities.

A. OVERVIEW

Findings and recommendations regarding site and building for the RECC are driven mainly by scale as with most other elements of this Feasibility Study.

B. FINDINGS AND RECOMMENDATIONS

1. *Site selection criteria were developed by the Site Selection Committee based on guidelines in NFPA 1221 as well as the combined experience, knowledge and perspective of the Committee's members and the Webb Consulting Services' Project Team.*

The Committee met on July 26, 2011 at the Sherborn Police Department for the purpose of developing weighted-factor criteria for evaluation of possible sites for the RECC. Representatives of five of the eight towns, the Middlesex Sheriff's Office, and Webb Consulting Services attended this session.

A key consideration during this meeting was assuring that the site-selection criteria reflected NFPA 1221 as required in this Feasibility Study's Scope of Work. In particular, the Committee felt strongly about considering only those sites where the RECC would be the sole occupant of a building whether new or existing.

After extensive discussion, the Committee accomplished two, important objectives: (a) it established 13 criteria (see Table 19); and (b) it then applied weights to each of the criteria, using a 10-high approach.

2. *Application of the site-selection criteria in the field produced a ranking of the sites for the RECC.*

In preparation for the site survey, the Committee and the Webb Consulting Services Project Team had worked with the Middlesex Sheriff's Office and the eight municipalities to identify a total of 13 prospective sites located among four of the MRPSC's eight municipalities. This included sites which were owned variously by the Commonwealth, the municipalities or private parties.

On August 10, 2011, five representatives of the Site Selection Committee and three members of the Webb Consulting Services' Project Team visited all 13 sites. These sites are listed in Table 18 on the next page.

Table 18
Prospective Site Locations by Municipality

Framingham	Hopkinton
MCI Framingham	77 Main Street
Former Alloy Comp., 100 Penn. Ave.	Cedar/Wilson
Western Ave.: Framingham DPW	66 Fruit Street
Natick	Sherborn
Former Sam’s Club, Route 9	Adesa - Western Ave.
Former Boston Sci., 30 Superior	CMD Garage
Self Storage, 336 Speen Street	DCR—Prospect Street
National Guard, 149 Speen Street	

Five of these sites were eliminated immediately upon initial viewing.

- Four of the sites - the Sam’s Club site on Route 9 in Natick, the former Boston Scientific site in Natick, the self-storage site on Speen Street in Natick and the building at 100 Pennsylvania Avenue in Framingham which formerly housed Alloy Computer - presented extraordinary costs for site acquisition and demolition as gating factors, effectively precluding the need for further consideration on any other criteria.
- MCI in Framingham was ruled out unanimously by the three law-enforcement personnel on the Committee (two Police Chiefs and a Captain from the Middlesex Sheriff’s Office) since, as a correctional facility, it was inherently inappropriate for the MRPSC RECC.

Thus, the Committee focused its efforts on undertaking a detailed evaluation of the eight remaining sites. At each site, the group collectively walked the site and then discussed the application of each criterion to that site, reaching consensus on the weighted-factor evaluation of each criterion and the overall scoring for each site.

Immediately following these visits, the Committee returned to the Sherborn Police Department and took an overview of this process and its results. There was unanimous consensus, as documented in the weighted-factor evaluation, that any of the top three sites - the Adesa site on Western Avenue in Sherborn, the National Guard site in Natick or the Western Avenue site near the DPW in Framingham - would serve the RECC well. The results of the evaluation appear as Table 19 ranked in order from left to right.

3. Facility size was determined by combining (1) the programmatic requirements as set forth in the scope of work for the Feasibility Study; and (2) the staffing plan.

Combining program and staffing, again reflecting scale, is at the core of this task.

Table 20 presents the calculation of facility size, based on a functional breakdown of space unitization. Room sizes are based on industry-standard operational models and local building codes.

The site also needs to be able to accommodate parking appropriate not only to the functioning of the RECC as such but also to its important role in providing complementary uses for such purposes as training of public-safety personnel in MetroWest's police, fire and EMS agencies.

4. Hard and soft costs have been calculated based on program use components and assuming new construction on vacant land.

"Hard" costs relate to the ordinary costs of construction and interior buildout. "Soft" costs include such things related to professional services for architectural and engineering (A&E) fees, legal and topographical surveys, geotechnical surveys and legal fees.

Table 21 presents these costs. It is very important to note the following qualifications to the information presented in this table.

- They do not include communications systems and related infrastructure costs.
- They do not include the cost of site acquisition.
- They do not include furniture and equipment (F&E) costs.
- They do not include a 10 percent factor for exceptional costs related to NFPA 1221.
- They increase the "hard" costs by 30 percent to account for "soft" costs such as architectural and engineering (A&E) fees, surveys, legal fees or permitting.

Table 19
Application of Site Evaluation Criteria (10 High Value)

Item	Weight	Sherborn Western Ave.		Natick National Guard		Framingham Western Ave.		Hopkinton 77 Main	
Access to telecommunications	10	7	7.0	8	8.0	6	6.0	9	9.0
Low exposure to natural hazards and seismic damage	8	10	8.0	10	8.0	9	7.2	9	7.2
Low exposure to man-made hazards	8	10	8.0	8	6.4	9	7.2	7	5.6
Ability to secure site from vandalism, terrorism, civil disturbances	8	10	8.0	10	8.0	9	7.2	9	7.2
Land area to accommodate use program, security, parking, etc.	10	10	10.0	10	10.0	7	7.0	9	9.0
Adequate building area	10	10	10.0	10	10.0	8	8.0	9	9.0
Reasonable costs related to site acquisition, prep/remediation & construction	8	9	7.2	9	7.2	9	7.2	6	4.8
Site access and accessibility to employment of dispatchers and staff	6	9	5.4	9	5.4	9	5.4	8	4.8
Human quality of site & its immediate environment including adjacencies	6	10	6.0	9	5.4	8	4.8	9	5.4
Existing public infrastructure	7	10	7.0	10	7.0	10	7.0	10	7.0
Neighborhood compatibility	10	10	10.0	9	9.0	10	10.0	7	7.0
Expansion Capability: 2-6 Towns	8	10	8.0	10	8.0	7	5.6	9	7.2
Central Location	9	10	9.0	10	9.0	10	9.0	6	5.4
TOTALS:	108		103.6		101.4		91.6		88.6

Table 19 (Continued)
Application of Site Evaluation Criteria (10 High Value)

Item	Weight	Hopkinton 66 Fruit St.		Hopkinton Cedar/Walton		Sherborn DCR Prospect St.		Sherborn CMD Garage	
Access to telecommunications.	10	7	7.0	8	8.0	6	6.0	4	4.0
Low exposure to natural hazards and seismic damage.	8	9	7.2	8	6.4	6	4.8	8	6.4
Low exposure to man-made hazards.	8	9	7.2	5	4.0	9	7.2	9	7.2
Ability to secure site from vandalism, terrorism, civil disturbances.	8	9	7.2	8	6.4	9	7.2	9	7.2
Land area to accommodate use program, security, parking, etc.	10	10	10.0	9	9.0	7	7.0	10	10.0
Adequate building area.	10	10	10.0	9	9.0	9	9.0	10	10.0
Reasonable costs related to site acquisition, prep/remediation & construction	8	10	8.0	8	6.4	6	4.8	5	4.0
Site access and accessibility to employment of dispatchers and staff.	6	8	4.8	8	4.8	8	4.8	8	4.8
Human quality of site & its immediate environment including adjacencies.	6	9	5.4	8	4.8	9	5.4	9	5.4
Existing public infrastructure.	7	6	4.2	6	4.2	6	4.2	4	2.8
Neighborhood compatibility.	10	6	6.0	8	8.0	8	8.0	5	5.0
Expansion Capability: 2-6 Towns	8	10	8.0	9	7.2	7	5.6	9	7.2
Central Location	9	4	5.6	6	5.4	8	7.2	8	7.2
TOTALS:	108		88.6		83.6		81.2		81.2

Table 20
Space Utilization Program

Room	Facility 10 stations (Sq. Feet)	Comment
Lobby/Reception/Exec Asst	500	Includes Exec Asst's workstation
Work Room (near Lobby/Exec Asst)	200	Holds copier, shredder, copy table, 7 vertical files, 2-3 large supply cabinets, 1 large bookcase, bulk paper area
Small File Storage	100	Misc storage (e.g., uniform spares, electrical supplies)
Large File Storage	200	Has floor-to-ceiling large shelves, holds all IT-related equipment, spare monitors/printers etc.
Executive Director Office	250	Has locking closet
CIO's Office	250	-----
IT Support Specialist(s) Office	200	-----
Telecom Manager's Office	340	Includes space for radio programming/testing
Network and Security Manager's Off.	200	Includes space for network monitoring equipt., etc.
HR/Training Manager's Office	200	-----
Main Conference Room	400	Has large Table with AV controls and 15 chairs plus credenzas, bookshelves, wall-mounted flat screen and AV rack
Comm Center Main Room ("ECC")	1800	Holds 10 Watson Dispatch Consoles plus file cabinets around periphery
Training Room/Alt Conf Rm.	350	Can hold 8-10 people or 4 rows of 3 workstations
Training Storage	100	This is a closet inside training room
Operations File Storage	100	Holds file cabinets
Supervisors Supply Closet	150	Key Supplies for 7x24 Communications Ops
Kitchen with Eating Area	260	Full Kitchen w 2 tables and chairs to seat 8

(Table Continued on Next Page)

Table 20 (Continued)
Space Utilization Program

Room	Facility 10 stations (Sq. Feet)	Comment
Staff Lounge	260	Holds 2 couches, 2 chairs, 1 Bookcase
Supervisors/Staff Office	225	Use for visiting tech support people as well
Male Locker Room	180	18 18" w by 72" h full size lockers
Female Locker Room	180	18 18" w by 72" h full size lockers
Male Toilet/Shower	180	2 sinks, 2 stalls, 2 urinals, shower room
Female Toilet/Shower	180	2 sinks, 4 stalls, shower room
Computer Room	350	Holds 2-4 rows of seven 84" Orthonics racks, shelves, desk (has 2 overhead CRAC units)
Radio Equipment Room	500	Holds 3-6 rows of five 84" racks, small locked closet, shelves, desk, and 2 floor-mounted CRAC units
Telecom Room	100	Holds VZ Demarc Racks, 911 System, PBX racks, Fire Alarm Batteries, CATV Distribution
Comp, Radio-CEB, Tel Space Total	550	Multiple equipment rooms
Tel-Data Closet	100	Holds 3 racks for vertical distribution of cables on the floor, has vertical conduit, has 2 CRAC units
Electrical Closets	120	-----
UPS Room	200	-----
Janitor's Closet	20	Sink, bucket storage, etc.
General Storage	250	Holds 3 large bins with shredded paper, ECC room vacuum, shelves
Sub-Total:	8,995	(Assumes Grossing Factor of 1.2)
Shared/Circulation:	1,779	
Grand Total:	10,794	
	10,800	(Rounded figure)

Table 21
Construction Costs for New RECC

Description	Projected Costs
RECC Full Facility	10,800 SF x \$300/SF
Total:	\$3,240,000

- a. Assumes new construction on an undeveloped site—utilities infrastructure costs will vary depending on the chosen location.
- b. Does not include Communications Systems and related infrastructure costs.
- c. Does not include the cost of site acquisition.
- d. Does not include Furniture and Equipment (F&E) costs.
- e. Includes a 10% factor for “exceptional costs” related to NFPA 1221 requirements.

NOTE: NFPA 1221 requires construction techniques that conform to higher standards for fire resistance, flame spread of materials, blast resistance and bullet-proof glazing. In addition, the HVAC system must be fully redundant and the power supply must have a fully functioning emergency backup system.

- f. Increase Hard Cost by a Soft Cost factor of 30%:

\$3,240,000 Hard Costs
 x 1.30 Soft Costs Factor
 \$4,212,000 Total Hard And Soft Costs
 \$ 750,000 Site Acquisition Cost
\$4,962,000 Total RECC Cost

NOTE: **Hard Costs** are the ordinary costs of construction and interior build-out, assuming no “Exceptional Costs” due to unforeseen circumstances.

Soft Costs are enabling costs such as A&E fees, legal and topographical surveys, geotechnical surveys and legal fees, excluding the cost of site acquisition. This project would also require a full-time Clerk of the Works during the 12-month construction phase, a Code requirement.

5. *Building plan diagrams are presented of optimal program organizations for hypothetical one (1) floor and two (2) floor facilities.*

The space utilization diagrams shown in Exhibit I below illustrate both one and two floor RECC building options.

The logic of these diagrams determines adjacencies based on the desired or demanded use relationships between the various program components. For example:

- In the single-floor option, all RECC program components are wrapped around the Operations component of the Center, enabling direct use relationships for virtually all program components with Operations itself.
- In the two-floor option, consistent with NFPA 1221, the Operations Center with its essential Support Facilities component is an upper-floor, independent and secure work environment with all other, more entrance-related program components at the ground level.

6. *One must keep in mind the substantial uncertainty regarding fluctuation in construction costs.*

While the economic recession in Massachusetts since late 2008 has generally been favorable to construction costs for public agencies, the Commonwealth may see some escalation in these costs. The estimates used in this Feasibility Study assume 5 per cent inflation in construction costs over the next 21 months, the expected timetable for bidding and completion of construction. The RECC's leadership will need to remain vigilant about these possible changes in construction costs.

7. *The time from signing of all contracts for professional services to completion of construction is estimated at 21 months.*

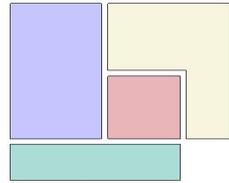
The RECC will need to coordinate this time frame with all of the other tasks involved in its launch.

Table 22
RECC Construction Milestones

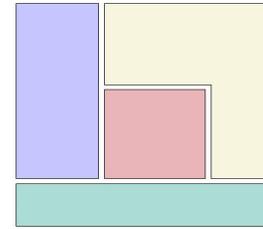
Milestone	Months Extended
Design and Specifications	0 – 6
Bidding	7 – 8
Contract Award and Startup	9
Construction	10 – 21

Exhibit 1

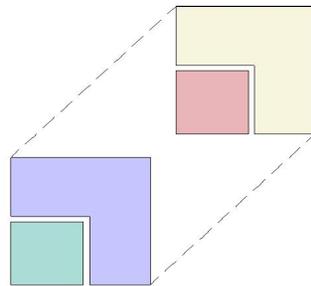
PLAN DIAGRAMS - SINGLE FLOOR and TWO FLOOR OPTIONS



SINGLE FLOOR OPTION

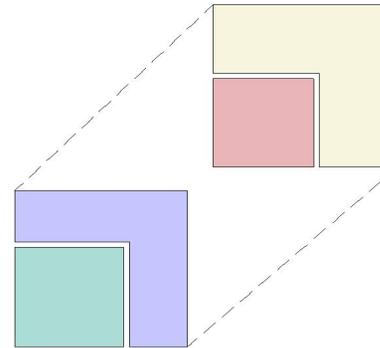


SINGLE FLOOR OPTION



TWO FLOOR OPTION

BASE SCENARIO



TWO FLOOR OPTION

MID-LEVEL SCENARIO

LEGEND

-  OPERATIONS
-  ADMINISTRATION
-  TECHNICAL
-  SUPPORT

8. *MRPSC should ask NERAC to do a full site assessment for threat and risk prior to completing selection of a prospective site for the RECC and then later in connection with the design of the new center.*

NERAC is the Northeast Homeland Security Regional Advisory Council. It includes all eight of the towns in the MRPSC among its total of 85 municipal members. NERAC represents multiple related disciplines including law enforcement and the fire service among others. It is charged with coordinating homeland security activities in Northeastern Massachusetts.

Given the particular nature of the RECC's requirements, NERAC should be asked to undertake a full, formal threat and risk assessment of the finalist-sites which the RECC may be considering. This is an essential part of the due diligence necessary in this situation.

Similarly, NERAC should be asked later to review the design of the RECC.

Two Police Chiefs from MRPSC's municipalities and a Captain from the MSO participated in the site survey and evaluation on August 10, 2011, providing their substantial knowledge and perspective throughout this process.

9. *Envelope security and support are achieved mainly through compliance with NFPA 1221 in the design and construction of the RECC.*

For example, NFPA 1221 addresses concerns with the proximity and construction characteristics of adjacent structures. Likewise, this Feasibility Study complies with these guidelines in the diagrams presented in Exhibit I, each of which requires a secure envelope for the Operations Center both in one-floor and two-floor configurations.

10. *The cost of site acquisition is highly uncertain.*

The Site Selection Committee has identified three top-ranked sites for the new RECC. Of these, one is privately owned (Adesa, Western Avenue in Sherborn), one is owned by the Commonwealth (the National Guard site in Natick) and one is owned by a town (Western Avenue adjacent to the Framingham DPW).

Given this diversity of ownership, it is difficult to state a single, highly probable cost of site acquisition.

This Feasibility Study takes a conservative position, assuming \$750,000 as the estimated cost of site acquisition.

11. Borrowing for the new RECC should be programmed for 20 years, or longer if possible.

The expected life of the new building is at least 20 years, which is an appropriate term for borrowing. If it should be possible to extend the term of the borrowing beyond 20 years, that would reduce the impact of the annual assessment, including principal and interest, on the RECC's members.

As noted elsewhere in this Feasibility Study, Senate 2037 would authorize borrowing generally for up to 25 years, which would still be substantially less than the expected useful lifetime of the new RECC building.

In this connection, the inter-municipal agreement for the MRPSC RECC should specify that any town which should terminate its membership prior to the retiring of any outstanding debt obligation would continue to be responsible for paying its full share of each such obligation authorized during its membership. Precedent exists for this in the Commonwealth.

Section Eight **Emergency Communications**

Section Eight – Emergency Communications Summary of Key Findings and Recommendations
1. All frequencies that now appear in each municipal police or fire department must be carried over to the new RECC.
2. All present remote radio sites, towers and poles will need to be reused.
3. A future engineering study will be required to determine a large level of detail which goes far beyond this Feasibility Study.
4. Each town should donate one frequency to the RECC.
5. The RECC Planning Board will need to decide where to locate the backup site for the RECC.
6. The RECC and its member-agencies must meet the FCC's narrowband deadline for January 1, 2013.
7. The RECC requires 10 consoles.
8. The RECC needs to accommodate the full complement of lines used by all eight municipalities.
9. The RECC requires two forms of networking infrastructure, one for primary use and the second for backup.
10. The municipally owned fiber optic network in the six of the eight municipalities which have it should be used for the RECC's primary communications infrastructure.
11. Microwave should be used as the backup infrastructure.
12. The RECC itself must control the core of the wide area network.
13. The RECC needs to be sensitive to the emergency-communications needs of certain populations of users.
14. The RECC must budget realistically for all one-time and annual costs related to its emergency-communications operations.
15. The RECC should consider carefully the option of contracting for managed network services.

A. OVERVIEW

Emergency communications represents one of the more complex and difficult elements in this Feasibility Study. This has to do with two key factors: (1) carrying over to the new RECC all of the emergency communications capabilities which the towns now have; and (2) assuring that all required capabilities are in place for the RECC going forward.

B. CONNECTIVITY

1. All frequencies that now appear in each municipal police or fire department must be carried over to the new RECC.

The new RECC must have complete capability to communicate with all emergency-services agencies and personnel: this coverage is essential to the RECC's core mission.

These frequencies include not only those now used by the eight municipalities and their respective police and fire departments but also those used to communicate with outside agencies. Among others, this includes the department of public works and school district in each municipality.

2. All present remote radio sites, towers and poles will need to be reused.

This is an essential element of connectivity for the new RECC. It helps to assure the same coverage among the towns as presently experienced with no need to renegotiate private sites or build duplicate facilities. Reuse of these facilities also expedites the operational launch of the RECC and helps to control overall costs.

This will be accomplished by utilizing town-owned fiber optic cabling and new microwave radio for both prime and backup connectivity. Those towns without town-owned fiber optic networks (e.g., those utilizing networks provided by their cable television franchisees) would require either town-owned fiber or microwave radio connectivity which is included as part of the cost analysis in this Feasibility Study.

The end result is that each town will be able to reuse their current radio equipment and maintain coverage during emergency situations or in the event that a town should decide to terminate its membership in the RECC. (It should be noted that once each town has joined the RECC, the State 911 Department will no longer provide (fund) 911 equipment to allow the town to operate its own dispatch center separate from the RECC.)

3. *A future engineering study, which will be required to determine the final level of detail and cost of connectivity, is beyond the scope of this Feasibility Study.*

This engineering study, estimated to cost \$60,000, will need to address such issues as:

- Microwave sites in each municipality and related costs.
- Line of sight, path and links.
- Final costs of fiber optic connectivity including such things as location and amount of splices, route build out, electronics and available dark fiber.

4. *Each town should donate one radio frequency to the RECC.*

Since obtaining new frequencies can take a year or longer, this donation would help to assure that the RECC has the necessary frequencies available at the time of its launch. At the same time, the RECC should apply for at least four new frequencies. These four frequencies will be for RECC use only. The RECC will initially support all of the existing town frequencies but over time – as the towns work together with the RECC- the total number of frequencies may be reduced.

5. *The RECC Planning Board will need to decide where to locate the backup site for the RECC .*

This decision cannot be made at this time since a single site for the RECC has not been identified.

The backup site will need to be relatively distant from the primary site and be able to accommodate the number of telecommunicators' positions needed as well as the technology (e.g., backup CAD/RMS system and communications) during its periods of service.

For example, if the primary site were in or close to Framingham, as two of the top three sites evaluated here are, it would not be prudent to have Framingham Police serve as the backup site, even though it is the largest existing telecommunications site and has perhaps the most technologically advanced infrastructure.

6. *The RECC and its member-agencies must meet the FCC's narrowband deadline for 2013.*

On December 23, 2004, the Federal Communications Commission (FCC) released a Narrowband Order mandating all Public Safety Radio pool licenses operating in the 150–174MHz and 421–512 MHz bands migrate to narrowband.

January 1, 2013 is the deadline for migration to 12.5 kHz technology or a technology that achieves the narrowband equivalent of one channel per 12.5 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data) in the bandwidth specified in the modification application is greater than 12.5 kHz. After January 11, 2011, no applications for new operations or modifications of operations using 25 kHz channels will be accepted.

The intent of the Narrowband Order is to achieve more efficient use of the frequency spectrum by “narrowing” the bandwidth to allow the creation of additional frequencies within the same frequency bands. By decreasing bandwidth from 25 kHz to 12.5 kHz, the FCC could effectively increase the total number of available frequencies within an existing band, making more frequencies available for auction.

The radio equipment, consoles and all peripheral equipment used by the RECC and its member-agencies must be narrowband to meet the January 1, 2013 deadline set by the FCC.

Several of the RECC's towns either have already procured this narrowband-compliant equipment or have funds in their respective budgets for this purpose. As one example, all eight towns need to have all portables and mobiles be narrowband-compatible by the January 1, 2013 deadline.

Although some of the towns indicated that they were exploring a change in vendors, at this time George Voorhees, CyberComm and Comtronics are the contractors who provide connectivity support for all eight municipalities. These firms are working with several of the eight municipalities to ensure that all equipment in place such as repeaters, transmitters, and voters can be reprogrammed for narrowband. This process must continue on an expedited basis.

7. *The RECC requires 10 consoles.*

This configuration is based on the staffing presented in this Feasibility Study, including:

- A maximum of three call takers on a tour.
- A maximum of four dispatchers on a tour.
- Three positions reserved for extraordinary natural or man-made emergencies, e.g., snowstorms, hurricanes, explosions or terrorist incidents.

The industry standard for centers of this kind calls for a margin of consoles to meet the demands of surges of 25% to 33% above the regular complement.

Each of these consoles will manage fire, police and EMS. Thus, each console position will have appearances of fire alarm box circuits, fire/police business lines as well as dedicated point-to-point circuits to fire stations.

8. *The RECC needs to accommodate the full complement of lines used by all eight municipalities and select lines, if appropriate, used by the MSO.*

Each of the eight municipalities has its own network of services which must appear at the RECC. These include:

- Business lines.
- Alarm lines.
- Point-to-point circuits between radio systems and towers.
- Point-to-point circuits between main fire station and fire substations.

Fiber optic networks and microwave radio communications systems will be used to extend existing point-to-point circuits from each municipality to the new RECC. The total approximate number of lines required is as follows:

- Fire Alarm Box Circuits: Transported by Fiber from each Town.
- Business Lines: 58 to 62.
- Radio Circuits: Transported by fiber from each Town.

The final configuration (quantity and type) of network services that the RECC will require may be reduced through consolidation and engineering.

In addition to these network services, other services, such as those from the Boston Area Police Emergency Radio Network (BAPEREN), the Greater Boston Police Council (GBPC), the Metropolitan Law Enforcement Council (MetroLEC) and the Central Massachusetts Law Enforcement Council (CEMLEC) would need to be reordered and terminated at the new RECC by the service provider.

The inclusion of two-way video monitoring and door access from the existing town police or fire buildings can be performed from the RECC via the use of the fiber optic/microwave network between each town and the RECC.

Enhanced 911 (E911) circuits/lines for the RECC are the responsibility of the Commonwealth's State 911 Department and will need to be configured and installed by the Department. Other circuit/special lines such as those from the Massachusetts Criminal Justice Information Services (CJIS) are the responsibility of the Executive Office for Public Safety and Security (EOPSS) which must coordinate installation.

C. FIBER OPTIC/MICROWAVE NETWORKS

1. *The RECC requires two forms of networking infrastructure: the first for the RECC's primary use and the second to serve as its backup.*

a. Primary Infrastructure

The town-owned fiber optic network, *where it exists among the eight towns*, should be used for the RECC's primary communications infrastructure since this fiber optic based network offers the required bandwidth for all networked services. The goal is to access the RECC by means of the fiber optic network of the hosting community. Fiber optic bandwidth, for all practical purposes, is

only limited by the electronic equipment in use.

Currently, the towns involved in this Feasibility Study present different pictures of their fiber deployment:

- Framingham, Holliston, Hopkinton, Natick and Wayland have Town-owned fiber.
- Ashland has Town-owned fiber but its Police and Fire Departments are not connected.
- Sherborn and Sudbury do not have any Town-owned fiber.

Several facts should be noted in connection with fiber in the towns.

- An engineering study would be needed to establish the likely cost of various options here.
- Those towns which do not have fiber currently (Sherborn and Sudbury) would need to build a network to connect their Police and Fire Departments with the RECC by means of splicing into the fiber network of an adjacent town.
- Microwave links may be a cost-effective alternative to fiber connections between Towns.

Each town's fire-alarm organization or contractor may also be able to install fiber optic cabling with a third-party vendor performing the actual fiber optic termination and splicing, and providing the fiber optic electronic equipment. Fiber optic splicing points would need to be identified on municipal boundaries.

Licensed microwave radio communications systems could be used to support connectivity between fiber optic cabling termination points.

b. Backup Infrastructure

It is critical to the overall operation of the RECC that a backup infrastructure be in place to provide redundancy, should disruption to the primary network architecture occur (e.g., damage to a fiber optic cable, damage to a supporting pole or failure of fiber optic electronic equipment). This backup infrastructure would consist of licensed microwave radio communication sites from each municipality's current dispatch center to the new RECC.

Licensed microwave radio communications offers a controlled standby network utilizing a wireless technology that can be designed to operate automatically during a fiber optic cable disruption. In order to configure this backup infrastructure, the following considerations must be taken into account during procurement and implementation:

- A complete engineering study must be conducted to ensure a proper system design

- serving the RECC location and the eight towns;
- The licensed microwave radio system must be DS-1 (T1) compatible;
 - The licensed microwave radio system must support, at a minimum, the four (4) radio frequencies dedicated to the RECC as well as, initially, the existing radio frequencies in use at each town;
 - The licensed microwave radio system must support voice and data communications (e.g., voice over IP (VoIP), MPLS, etc.) by supporting connectivity to appropriate network equipment (e.g., routers, switches, etc.);
 - All network equipment (e.g., routers, switches, etc.) must provide for Quality of Service (QoS) and be Federal Information Processing Standard (FIPS) compliant.
 - The licensed microwave radio system must be designed with at least two alternate routes to ensure network redundancy and survivability.
 - The licensed microwave radio system build-out for both the primary and backup networks would very likely require new monopoles in each municipality with microwave dishes and supporting towers in view of the public. The RECC's Board of Directors will need to decide whether this cost should be shared or paid by each municipality individually.
 - Licensed microwave radio systems may present issues with weather since heavy rain, snow or icing of antennas could cause disruptions.

There is the possibility of having the microwave radio communications system serve as both the primary and backup infrastructure with the bandwidth to support all eight of the municipalities.

D. COMMERCIAL NETWORKS

1. *The RECC itself must control the core of the wide area network (WAN).*

Commercial vendors like Verizon will still have an important role with the RECC since these carriers provide essential services such as standard business lines and radio circuits.

Completely relying on any commercial vendor for these services would not be operationally or fiscally prudent. At some point, each municipality should consider replacing these Verizon circuits with its own microwave radio-based network.

E. MANAGED NETWORK OPTION

1. *The RECC should consider the option of a managed network.*

A managed network uses leased lines from vendors like Verizon or Comcast, or fiber providers like Level 3, managed by such third party vendors as MECnet or EarthLink. This firm would need to be large enough to provide services such as: (1) operating a call center on a 7x24 basis for the RECC to report troubles and have the firm coordinate response; and (2) monitoring the network.

A managed network has advantages and disadvantages. Some of its key advantages are:

- The RECC would not need to maintain its own staff or equipment to monitor and troubleshoot the network, freeing the RECC from the burdens and concerns of day-to-day management.
- The managed network is flexible and scalable, enabling expansion of the network to be done without construction that would otherwise be needed if the RECC owned the network.
- Costs are fixed as negotiated for an original term and optional contractual extensions and changes in service levels.

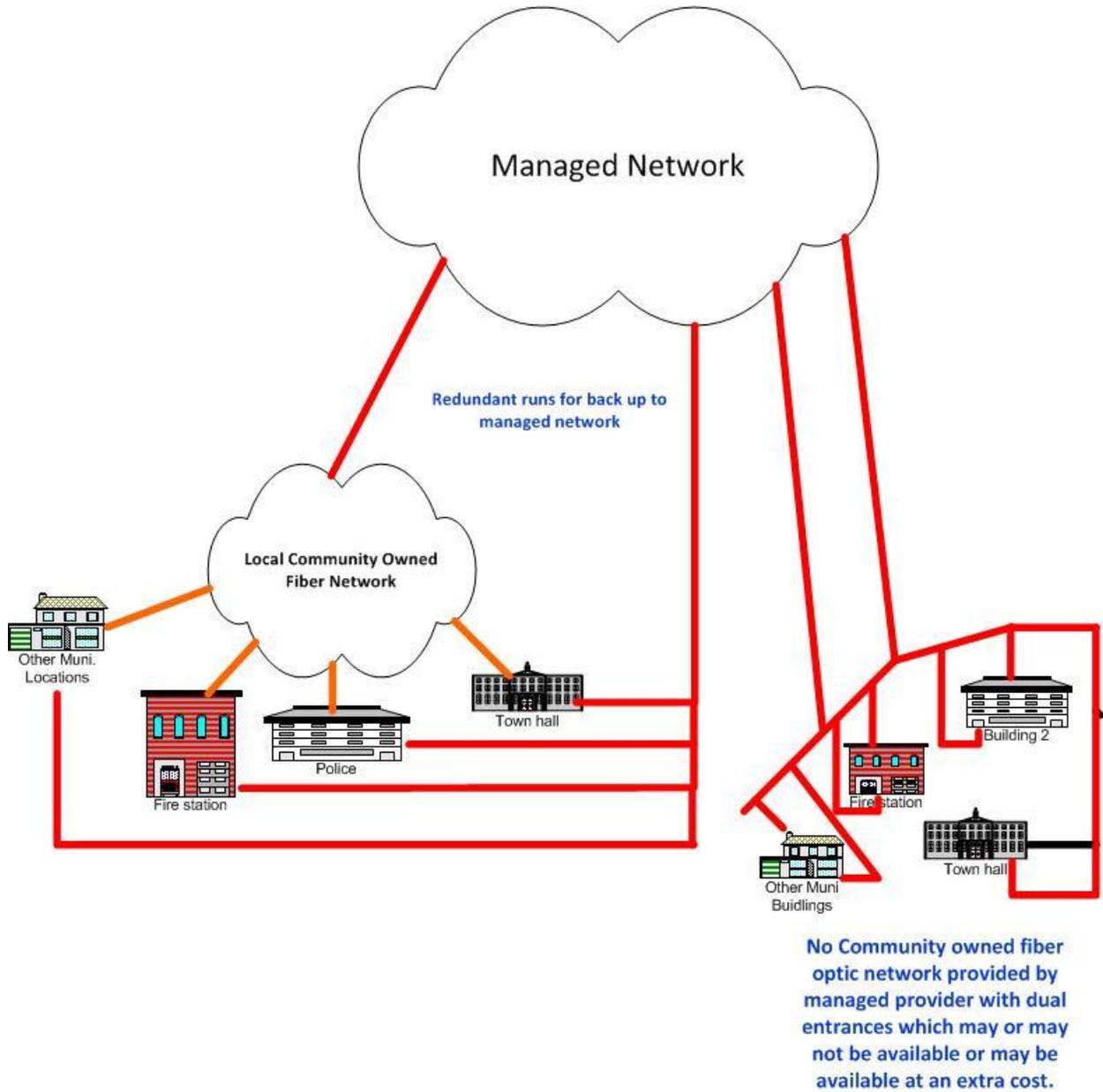
The major disadvantages to a Managed Network are:

- The RECC's ownership of the network may provide a level of comfort in the RECC's knowing that it has control over all facets of the network's management and operation.
- Costs may change with each contract.
- If the RECC were to own the fiber network, each town would need to donate at least two dark fiber strands. Sherborn and Sudbury, which do not have a town-owned fiber network, would need to construct a fiber network just to be able to interoperate with the new RECC. Ashland has Town-owned fiber but the Police and Fire Departments are not currently on the Town's fiber network and would have to be added.
- A RECC-owned network would require that the various RECC communities splice into each other's network at points where they are close enough to connect. If the RECC communities were not adjacent to one another, then other options like negotiating and likely having to lease the fiber from the non-member community or providing a microwave link across boundaries may be required. This issue would require careful consideration, should new municipalities wish to join the RECC in the future.
- The RECC itself, should it need to expand bandwidth, would bear all one-time and ongoing costs related to replacing or enhancing its own electronics.

Finally, the RECC may choose to start with a managed network and have contractual options to move to a private network owned by the RECC.

Figure 1 presents an example of the managed network option.

Figure 1: Managed Fiber Optic Network



F. OTHER CONSIDERATIONS.

1. *The RECC needs to be sensitive to the emergency communications needs of certain user populations.*

Certain operational requirements, such as access for the handicapped, are mandated by law or regulation. At the same time, the RECC needs to provide facilities related to emergency communications for other populations. These include, for example:

- a. *Linguistic minorities.* Commercial services provide instantaneous call-handling and translation services specifically for centers like the RECC.
- b. *Senior citizens.* This population has often used 10-digit telephone numbers for emergency services for their entire lives, notwithstanding the use of 911 in Massachusetts for more than 20 years. Similarly, seniors also may resort to site visits to a police or fire station because they may not have access to or fully understand other communications or information technologies.

G. COSTS

Table 23 details all one-time costs for emergency communications. Thereafter, Table 24 shows annual costs. The RECC Board will need to decide whether each of the eight towns will be responsible for costs that are particular to them, respectively. This situation is similar to the costs discussed in Section Six of this Feasibility Study on Information Technology & Systems. Costs which one or more towns may anticipate having to fund locally include connecting to the RECC's fiber optic network.

For example, for the Towns that do not currently have fiber optic networks in place (Sherborn and Sudbury) the estimated cost to build and connect their Police and Fire Departments, respectively, would be \$120,000 to \$140,000 each.

In addition, every Town, whether a fiber optic network is now in place or not, would bear a for the hardware (electronics) and equipment needed to "light up" and manage the fiber optic connection to its police and fire headquarters.

Additionally, there may be charges for local line services, reprogramming for radios, disconnection charges for radios, or for new monopoles in each town.

Table 23
Emergency Communications: One Time Costs

Item Description	Qty	Unit Cost	Total Costs
Consoles, Furniture, Alarm Panels, Recording	10	\$120,000	\$1,200,000
Microwave Links: Backup Communications	16	\$50,000	\$800,000
Monopole ¹	1	\$150,000	\$150,000
Fiber Multiplexors, Transceivers, etc.	16	\$25,000	\$400,000
Fiber Build out	1	\$600,000	\$600,000
Radio to Fiber Optic Interface Equipment	----	----	\$200,000
Infrastructure Cabling: Voice and Data	35	\$300	\$10,500
RECC Telephony System	35	----	\$38,500
RECC Non-911 Telephone Network Services	----	----	\$1,720
RECC Building Security (Cameras, Doors, Etc.)	----	----	\$20,000
Engineering Studies	1	\$60,000	\$60,000
Radio Reprogramming & Upgrades	1	\$140,000	\$140,000
Total One-Time Costs:			\$3,620,720
Managed Fiber Optic Network Option:			\$60,000
Total One-Time Costs with Managed Option²:			\$2,680,720

1: The inclusion of a single monopole is made as part of the overall cost projection. However, monopoles may not be necessary depending on the final site selection of the RECC. In addition, monopoles may not – in some towns – be allowed and such microwave radio systems may have to be included on existing structures if necessary. The engineering study mentioned in B:3 above is required to finalize monopole/tower requirements.

2: The total one-time costs associated with the managed option eliminates certain costs items from Table 23 including the Fiber Optic Build Out and the Fiber Optic Multiplexors, Transceivers, etc.

Table 24
Emergency Communications: Annual Operating Costs

Item Description	One-Time Cost	Annual Cost
Consoles, Furniture, Alarm Panels, Recording (10%)	\$1,200,000	\$120,000
Microwave Links: Backup Communications (15%)	\$800,000	\$120,000
Monopole (10%)	\$150,000	\$15,000
Fiber Multiplexors, Transceivers, etc. (10%)	\$400,000	\$40,000
Fiber Build out (10%)	\$600,000	\$60,000
Radio to Fiber Optic Interface Equipment (10%)	\$200,000	\$20,000
Infrastructure Cabling: Voice and Data	\$10,500	\$0
RECC Telephony System (15%)	\$38,500	\$5,775
RECC Non-911 Telephone Network Services	\$1,720	\$9,000
RECC Building Security (Cameras, Doors, Etc.) (10%)	\$20,000	\$2,000
Engineering Studies	\$60,000	\$0
Radio Reprogramming & Upgrades	\$140,000	\$0
Total Costs: Core System:	\$3,620,720	\$391,775
Managed Fiber Optic Option:	\$60,000	\$217,000
Total Costs: Core System with Managed Option ²:	\$2,680,720	\$508,775

- 2: The total one time and annual costs associated with the managed option eliminates certain costs items from Table 24 including the Fiber Optic Build Out and the Fiber Optic Multiplexors, Transceivers, etc.

Section Nine Financial Management

Section Nine: Financial Management Summary of Key Findings and Recommendations

1. This discussion of the RECC's financial management assumes that it proceeds in its organization with the institutional platform recommended previously, i.e., as a special district pursuant to Senate 2037.
2. Under the proposed statute, the RECC would have the authority to borrow funds pursuant to State law. This authority should be used for significant capital expenditures such as building the new RECC and procuring and implementing the new CAD/RMS system and communications infrastructure.
3. The RECC will be required to follow the Commonwealth's Uniform Municipal Accounting System (UMAS) in its financial management.
4. A CPA firm specializing in municipal finance in Massachusetts should be engaged to assist in developing the RECC's chart of accounts and providing services otherwise as may be needed in the organization of the RECC's financial systems, practices and procedures.
5. The executive team of the RECC will need to report to the Board of Directors on a timely basis and otherwise exercise all appropriate financial oversight.
6. The RECC's Chief Financial Officer has full responsibility for all aspects of both day-to-day and comprehensive financial administration.
7. Billing for membership in the RECC should be based solely on population until there is specific information from the RECC's new CAD/RMS and telecommunications systems to provide consistent information on such factors as the number of emergency or non-emergency calls related to each municipality. Only then will the RECC have the information to make informed adjustments to the basis for billing.
8. The RECC, as a new governmental entity, should have an independent audit every year.
9. By statute, the Board of Directors has significant decision-making authority with respect to the RECC's financial management.
10. The RECC should be aggressive in its pursuit of financial assistance from governmental and other sources.
11. The RECC needs to be aware of the possible impact of inflation on the costs presented here.
12. Significant economies of scale with the addition of one or more towns with average call volumes could help to reduce the annual assessment for the eight original towns.

A. OVERVIEW

The RECC will need to exercise fiscal prudence and comply with State and U.S. Government law and regulation as well as standards for governmental accounting in all aspects of its financial management. This section offers a systematic presentation of various issues involved in the RECC's financial management.

B. LEGISLATIVE CONTEXT

Financial management of the RECC occurs in the context of its enabling legislation as this Feasibility Study has recommended previously. Key elements of Senate 2037 follow.

This information is presented as a model. Ultimately, the RECC's financial management will be determined by whatever enabling legislation may be enacted either as part of the Massachusetts General Laws or as a special act.

1. **Planning Funds.** Section 18P authorizes the regional 911 emergency communication district planning board to carry out studies regarding "...the advisability and feasibility of establishing a regional 911 emergency communication district." Later, it reads as follows:

Each city or town comprising such board may appropriate a sum not in excess of one dollar per capita for the purpose of meeting the expenses of the board. Such board may expend any such sums so appropriated and may employ such expert assistance as it deems necessary. Such board may apply for, accept and expend, without appropriation, grants or gifts of funds from the federal or state government or any other source.

This provision is significant since it provides initial capital for the RECC's development and implementation during the planning phase prior to the municipalities' voting to commit to membership in the MRPSC RECC.

2. **Issuance of Bonds and Notes.** Section 18T authorizes the RECC district "To issue bonds and notes in the name and upon the full faith and credit of said district..."

Where Section Three of this Feasibility Study previously discussed a minimum commitment of 10 years for membership in the RECC, this would also be necessary to assure payment of these bonds and notes.

3. **Funds.** Section 18T authorizes the RECC district "To receive and disburse funds for any purpose."
4. **Temporary Debt.** Section 18T authorizes the RECC district "To incur short term debt in anticipation of revenue to be received from members."

5. **Assessment of Cities and Towns.** Section 18T authorizes the RECC district “To assess member cities and towns for any expenses of the district.” This assessment under Senate 2037 occurs through the Cherry Sheet.
6. **Grants or Gifts.** Section 18T authorizes the RECC district “To receive any grants or gifts for the purposes of the district.”
7. **Annual Financial Report.** Section 18T authorizes the RECC district “To submit an annual report to each of the member cities and towns, containing a detailed financial statement, and a statement showing the method by which the annual charges assessed against each city and town were computed.”
8. **Annual Operating Budget.** Section 18T authorizes the RECC district “To adopt an annual operating budget.”
9. **Treasurer’s Role.** Section 18U establishes the position of treasurer as follows: “The treasurer shall receive and take charge of all money belonging to the district and shall pay any bill of the district which shall have been approved by the committee.”
10. **Apportionment of Amounts to be Raised to the Cities and Towns.** Section 18V sets forth in detail the procedure for apportioning amounts to be raised to the cities and towns.
11. **Annual Audit.** Section 18W describes the scope of and procedures related to the annual audit.

C. STAFFING OF THE RECC’S FINANCIAL MANAGEMENT

1. ***The RECC requires a Chief Financial Officer (CFO) with full responsibility for both day-to-day and comprehensive financial administration under the supervision of the Executive Director.***

The CFO has the duties of the MRPSC RECC’s treasurer under Senate 2037.

The CFO will be “hands on,” responsible for a wide range of functions. This begins with day-to-day financial administration, assisted by the Executive Assistant, carrying out such tasks as general-ledger accounting, purchasing, accounts payable, fixed assets, grants and project management, debt management, investment management, accounts receivable, budgeting and complete payroll processing. Key to this staffing is the RECC’s use of a proven, Internet-based software system for governmental financial management as discussed later in this section.

- 2. The Executive Director will need to work closely with the CFO on a daily basis.*

As a startup organization, the Executive Director and CFO will need to be working hand-in-glove as a team in helping to meet the RECC's financial responsibilities on a daily basis.

D. REPORTING TO THE BOARD

- 1. The Executive Director will need to report to the Board of Directors on a timely basis and otherwise exercise all appropriate financial oversight.*

This frequent, full reporting is typically done formally on a monthly basis and will be essential to the Board's meeting its statutory responsibility for oversight of the RECC's finances.

E. FINANCIAL SYSTEMS AND SOFTWARE

- 1. The RECC should procure and implement an Internet-based governmental financial system which meets its functional requirements, including conformity with Massachusetts law.*

Massachusetts has a competitive market in systems for local governments which meet this standard.

The RECC should consider acquiring these services using hosted applications accessed by means of the Internet, often referred to as "cloud" services or Software as a Service ("SaaS"). This approach has several advantages for the RECC as a relatively small agency when compared with an in-house system including: (1) minimizing the effort required for internal support from the RECC's own IT or financial staff; (2) providing scalability at defined costs as this may be required; and (3) paying only for those services actually used month to month.

The strategic question for the RECC lies initially in examining the ability of the system to meet the RECC's longer-term needs.

- 2. The RECC should engage a CPA firm specializing in municipal finance in Massachusetts to assist in developing the RECC's chart of accounts and providing services otherwise as may be needed in the organization of the RECC's financial systems, practices and procedures.*

This is a prudent and necessary step in order for the RECC to be sure from the outset that it is complying in all respects with best practice in (1) Massachusetts municipal finance; and (2) national standards otherwise.

3. *The RECC should have an independent audit every year.*

This is sound practice which is particularly necessary in the early years of the RECC's existence to assure that (1) its financial management is impeccable; and (2) any information which may be presented in the management letter is resolved timely.

F. THE RECC'S BUDGET

This Feasibility Study presents the RECC's budget on the next several pages. This budget incorporates the recommendations made in other sections of this Feasibility Study and is based on the following concepts.

1. *The budget should incorporate all one-time and annual expenses, both operating and capital, which may be reasonably anticipated.*

This budget reflects the complexity of the RECC as a public agency and the scope of its activities.

2. *Borrowing should be undertaken for eligible capital expenditures as appropriate.*

Massachusetts General Laws and Senate 2037 authorize borrowing for significant capital expenditures which the RECC will be facing. Most significantly, these include such things as building the RECC's new center and the procurement and implementation of the new CAD/RMS system and communications infrastructure. The budget here allocates debt service - principal and interest - to each year's operating budget on a roughly level basis, identifying the debt service for each borrowing by its purpose.

3. *The budget must be adjusted for inflation over the next several years.*

As a general rule, this budget assumes a 3 per cent annual increase in most costs. Exceptions to this are described in the next part of this section, G. Budget Notes.

4. *This Feasibility Study addresses the RECC's finances as well as possible in the current and foreseeable climate of extraordinary uncertainty.*

This uncertainty, dating from October, 2008 and continuing unabated, has been compounded most recently by the downgrading of the credit rating of the U. S. Government by Standard & Poors on August 8, 2011. As of the date of this Feasibility Study, how this situation may continue to affect the cost of borrowing for state and local governmental agencies remains substantially uncertain. The estimates included in this Feasibility Study are based on information from a leading financial advisor to local governments in Massachusetts.

Table 25
Implementation Budget

Line	UMAS	Account Description	FY2014 Year 1	FY2015 Year 2	FY2016 Year 3	FY2017 Year 4	FY2018 Year 5	Total 5 Years
1		Personal Services						
2	5110	Salaries and Wages	0	1,237,500	2,036,000	2,097,080	2,159,992	7,530,572
3	5120	Salaries and Wages - Temporary Positions	0	800	3,500	3,605	3,713	11,618
4	5130	Additional Gross, Overtime	0	185,625	305,400	314,562	323,999	1,129,586
5	5140	Additional Gross, Differentials	0	12,375	20,360	20,971	21,600	75,306
6	5150	Fringe Benefits to Employees		56,000	354,000	364,620	375,559	1,150,179
7	5170	Fringe Benefits on Behalf of Employees	0	198,000	325,760	335,533	345,599	1,204,892
8	5190	Other Personal Services	0	0	0	0	0	0
9		Subtotal Personnel Services:	0	1,690,300	3,045,020	3,136,371	3,230,462	11,102,152
10								
11	5200	Purchase of Services						
12	5210	Energy (Electricity, fuel oil)	0	13,000	27,000	28,350	29,768	98,118
13	5230	Non-energy Utilities (Water/Sewer)	0	1,440	5,760	6,048	6,350	6,668
14	5240	Repairs and Maintenance:						
15	5241	-Building and Grounds		1,200	4,800	5,040	5,292	16,332

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Table 25 (Continued)
Implementation Budget

Line	UMAS	Account Description	FY2014 Year 1	FY2015 Year 2	FY2016 Year 3	FY2017 Year 4	FY2018 Year 5	Total 5 Years
16	5242	-Vehicles	0	3,000	6,990	7,340	7,706	25,036
17	5243	-Audio-visual equipment	0	150	800	840	882	2,672
18	5244	-Office Equipment	0	500	1,165	1,223	1,284	4,173
19	5245	-Communication Lines	0	400	2,000	2,100	2,205	6,705
20	5246	-Communications Equipment	0	94,250	377,000	395,850	415,643	1,282,743
21	5247	-Computer Hardware	0	0	23,000	24,150	25,358	72,508
22	5248	-Computer Systems Software	0	4,000	10,000	10,500	11,025	35,525
23	5249	-Computer Technology Software	0	60,000	209,000	219,450	230,423	718,873
24	5250	-Office Furnishing	0	0	2,000	2,100	2,205	6,305
25	5270	Rentals and Leases						
26	5271	-Buildings	0	0	0	0	0	0
27	5272	-Vehicles	0	0	0	0	0	0
28	5290	Other Property Related Services	0	5,130	17,100	17,613	18,141	57,984
29	5300	Professional and Technical						
30	5301	-Accounting and Auditing	20,000	20,000	25,600	26,368	27,159	119,127
31	5302	-Bond and Financial Advisory Services	0	28,200	0	0	0	28,200

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Table 25 (Continued)
Implementation Budget

Line	UMAS	Account Description	FY2014 Year 1	FY2015 Year 2	FY2016 Year 3	FY2017 Year 4	FY2018 Year 5	Total 5 Years
32	5303	-Communications Procurement & Implement	50,000	25,000	5,000	5,000	5,000	90,000
33	5304	-General Legal Counsel	25,000	25,750	35,523	36,589	37,686	160,548
34	5305	-Management Consulting	25,000	25,000	0	0	0	50,000
35	5306	-Advertising	5,000	5,150	5,305	5,464	5,628	26,546
36	5307	-CAD/RMS Procurement & Implement	50,000	25,000	5,000	5,000	5,000	90,000
37	5308	-Labor Relations	50,000	51,500	75,000	77,250	79,568	333,318
38	5310	-Human Resources Admin.	15,000	25,000	0	0	0	40,000
39	5309	-Employee Training	0	20,000	20,600	21,218	21,855	83,673
40	5310	-Data Processing Systems and Services	15,000	17,500	18,025	18,566	19,123	88,213
41	5340	Communication						
42	5341	-Telephone and Telegraph	0	10,000	14,775	15,218	15,675	55,668
43	5342	-Wireless Phones	0	4,000	8,120	8,364	8,615	29,098
44	5343	-Data Processing Lines	0	1,000	2,030	2,091	2,154	7,275
45	5344	-Printing and Mailing	1,000	2,000	10,000	10,300	10,609	33,909
46	5345	-Postage Delivery Services	1,000	1,030	2,061	2,123	2,187	8,400

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Table 25 (Continued)
Implementation Budget

Line	UMAS	Account Description	FY2014 Year 1	FY2015 Year 2	FY2016 Year 3	FY2017 Year 4	FY2018 Year 5	Total 5 Years
47	5380	Other Purchased Services	0	1,000	2,030	2,091	2,154	7,275
48		Subtotal Purchase of Services	257,000	470,200	915,684	956,244	998,691	3,597,819
49	5400	Supplies						
50	5410	Energy Supplies	0	7,500	16,000	16,480	16,974	56,954
51	5420	Office Supplies	1,000	5,000	10,050	10,352	10,662	37,064
52	5430	Bldg & Equip Repairs & Main Supplies	0	1,700	5,130	5,284	5,442	17,556
53	5450	Custodial and Housekeeping Supplies	0	1,000	1,030	1,061	1,093	4,184
54	5460	Groundskeeping Supplies	0	1,000	1,030	1,061	1,093	4,184
55	5480	Vehicular Supplies	0	4,000	9,320	9,600	9,888	32,807
56	5490	Food and Food Service Supplies	0	2,000	4,060	4,182	4,307	14,549
57	5500	Medical and Surgical Supplies	0	2,000	2,030	2,091	2,154	8,275
58	5580	Other Supplies						
59	5581	-Data Processing	0	2,000	6,000	6,180	6,365	20,545
60	5582	-Uniforms	0	28,800	19,200	19,776	20,369	88,145
61	5583	-Library Supplies	0	2,000	2,060	2,122	2,185	8,367
62	5584	-Magazine Subscriptions	500	1,000	1,030	1,061	1,093	4,684

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Table 25 (Continued)
Implementation Budget

Line	UMAS	Account Description	FY2014 Year 1	FY2015 Year 2	FY2016 Year 3	FY2017 Year 4	FY2018 Year 5	Total 5 Years
63	5585	-Newspaper Subscriptions	0	1,000	1,030	1,061	1,093	4,184
64	5586	-Sundry Supplies	1,000	2,030	2,091	2,154	2,218	9,493
65		Subtotal Supplies	2,500	61,030	62,861	64,747	66,689	257,827
66								
67	5600	Intergovernmental	0	0	0	0	0	0
68								
69	5700	Other Charges and Expenses						
70	5710	In-State Travel	1,000	5,000	10,000	10,300	10,609	36,909
71	5720	Out-of State Travel	2,500	5,000	10,000	10,300	10,609	38,409
72	5730	Dues and Memberships	1,500	10,000	20,000	20,600	21,218	73,318
73	5740	Insurance Premiums	10,000	30,000	50,000	51,500	53,045	194,545
74	5760	Judgments	0	0	0	0	0	0
75	5780	Other Unclassified Items						
76	5781	-Survivor Benefits	0	0	0	0	0	0

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Table 25 (Continued)
Implementation Budget

Line	UMAS	Account Description	FY2014 Year 1	FY2015 Year 2	FY2016 Year 3	FY2017 Year 4	FY2018 Year 5	Total 5 Years
77	5782	-Reserve Fund Appropriations	10,000	25,000	40,000	41,200	42,436	158,636
78	5783	-Reserve: Computer Hardware	0	20,000	40,000	40,000	40,000	140,000
79	5784	-Reserve: Communications	0	20,000	40,000	40,000	40,000	140,000
80		-Reserve: Building Improvement	0	35,000	35,000	35,000	35,000	140,000
81	5785	-Reserve: Automobiles	0	30,000	30,000	30,000	30,000	120,000
82		Subtotal Other Charges and Expenses	25,000	180,000	275,000	278,900	282,917	1,041,817
83	5800	Capital Outlay						
84	5820	Land	0	0	0	0	0	1
85	5820	Buildings (Buildout)	0	0	0	0	0	0
86	5840	Site Improvements	0	0	0	0	0	0
87	5850	Additional Equipment						
88	5851	--Automobiles	0	75,000	100,000	0	0	175,000
89	5852	-Communications Equipment	0	0	0	0	0	0
90	5853	-Classroom Furniture	0	10,000	2,000	2,000	2,000	16,000
91	5854	-Office Equipment and Furniture	0	20,000	4,000	4,000	4,000	32,000
92	5855	-Bulletin Boards and Shelving	0	400	200	200	200	1,000

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Table 25 (Continued)
Implementation Budget

Line	UMAS	Account Description	FY2014 Year 1	FY2015 Year 2	FY2016 Year 3	FY2017 Year 4	FY2018 Year 5	Total 5 Years
93	5856	-Classroom Equipment	0	10,000	1,000	1,000	1,000	13,000
94	5870	Replacement Equipment:						
95	5871	-Computer Hardware	0	0	0	0	0	0
96	5872	-Communications	0	0	0	0	0	0
97	5873	-Automobiles	0	0	0	0	0	0
98		Subtotal Capital Outlay	0	115,400	107,200	7,200	7,200	237,000
99	5900	Debt Service						
100	5910	Maturing Principal on Long-Term Debt						
101	5911	-CAD/RMS System & Communications	0	504,322	525,718	547,114	575,116	2,152,270
102	5912	-Building Construction	158,784	166,227	171,189	181,113	188,556	865,869
103	5915	Interest on Long-Term Debt						
104	5916	-CAD/RMS System & Communications	130,000	260,000	240,000	216,000	192,773	1,038,773
105	5917	-Building Construction	223,290	216,145	298,665	200,961	192,811	1,131,872
106	5925	Interest on Notes	0	0	0	0	0	0
107		Subtotal Debt Service	512,074	1,146,694	1,235,572	1,145,188	1,149,256	5,188,784
108								

(Table Continues on the Next Page)

Table 25 (Continued)
Implementation Budget

Line	UMAS	Account Description	FY2014 Year 1	FY2015 Year 2	FY2016 Year 3	FY2017 Year 4	FY2018 Year 5	Total 5 Years
109		SUMMARY OF EXPENDITURE ACCOUNTS						
110	5100	Personal Services	0	1,518,040	2,923,580	3,011,287	3,101,626	10,554,533
111	5200- 5300	Purchase of Services	257,000	470,200	915,684	956,244	998,691	3,597,819
112	5400- 5500	Supplies	2,500	61,030	62,861	64,747	66,689	257,827
113	5600	Intergovernmental	0	0	0	0	0	0
114	5700	Other Charges and Expenses	25,000	180,000	275,000	278,900	282,917	1,041,817
115	5800	Capital Outlay	0	115,400	107,200	7,200	7,200	237,000
116	5900	Debt Service	512,074	1,146,694	1,235,572	1,145,188	1,149,256	5,188,784
117		TOTAL EXPENDITURES	796,574	3,663,624	5,641,336	5,588,650	5,735,215	21,425,399
118		Less: 911 Municipal Grants	0	0	400,000	400,000	400,000	1,200,000
119		NET ANNUAL COST	796,574	3,663,624	5,241,336	5,188,650	5,335,215	20,225,399
120		TOTAL PER CAPITA @ 179,206	4.45	20.44	29.25	28.95	29.77	112.86

G. BUDGET NOTES

The notes which follow offer specific information on the assumptions underlying key accounts of relatively large fiscal significance in the budget. The number preceding each item is its account identifier as derived from the Commonwealth of Massachusetts Uniform Municipal Accounting System (UMAS) and is used to structure the RECC's budget in the preceding table.

1. **5110: Salaries and Wages:** Staffing presented in Table 3 in Section Five, Staffing. No staffing is programmed for FY2014 since this is the RECC's pre-implementation period. For FY2015, which is the start-up year, Personal Services is budgeted as follows:
 - a. For 12 months for the Executive Director at \$110,000
 - b. 9 months for the CFO, HR/Training Director, Executive Assistant and CIO, for a total of \$322,500, based on an annualized total of \$430,000. This group adds the core administrative and technical positions identified in Table 3 in Section Five, Staffing.
 - c. For 6 months in the latter half of FY2014, the Call Takers, Dispatchers, Working Supervisors and all other IT staff are added for a total of \$805,000, based on an annualized amount of \$1,610,000.

Thus, the combined total for all positions for FY2015 is \$1,237,500.

2. **5130: Additional Gross, Overtime:** 15 per cent (15%) of Salaries and Wages.
3. **5150: Fringe Benefits to Employees:** Includes health, life/AD&D and dental insurance. Based on the RECC's contribution of \$6,000 per employee, increasing 15 per cent (15%) per year.
4. **5170: Fringe Benefits on Behalf of Employees:** Includes mainly funding of retirement at 13 per cent (13%) of Salaries and Wages plus unemployment and workers' compensation, totaling 16 per cent (16%).
5. **5246: Communications Equipment:** Provides for maintenance of the RECC's core communications equipment.
6. **5247 - 5249: Computer Hardware, Systems Software and Applications Software:** Provides for annual support costs as listed previously in Table 16, System Annual Operating Costs of the new RECC CAD/RMS System.
7. **5301: Accounting and Auditing:** Funds the services of a CPA firm specializing in working with local governments to (1) help organize the accounting system for the RECC; and (2) carry out the annual audit.
8. **5302: Bond and Financial Advisory Services:** Funds the services of the financial advisor to assist in the planning and issuance of bonds and notes.

9. **5303: Communications:** Funds the professional services of a firm specializing in working with local governments and public-safety agencies to (1) execute the procurement of the new communications infrastructure, estimated to cost \$3,620,720; and (2) provide annual services as may be needed from time to time.
10. **5304: General Counsel/Legal:** Funds legal services of a firm specializing in working with local governments to (1) establish the RECC's legal and physical infrastructure (e.g., general representation and specialized representation in such areas as negotiation with contractors); and (2) provide general-counsel services on an ongoing basis.
11. **5305: Management Consulting:** Funds consulting services which the RECC's Board may deem necessary at the startup.
12. **5307: Data Processing:** Similar to Communications, funds the professional services of a firm specializing in working with public-safety agencies and local governments to (1) execute the procurement of the new CAD/RMS system, estimated to cost \$2,492,525; and (2) provide annual services as may be needed from time to time.
13. **5308: Labor Relations:** Funds the services of special counsel in employment and labor relations to work with the RECC in addressing complex questions anticipated in such areas as transition of personnel from previous bargaining units to the RECC, recognition of a new bargaining unit(s) at the RECC and negotiation of collective-bargaining agreements and other matters year-to-year.
14. **5309: Employee Training:** Provides for training both (1) prior to the RECC's "going live"; and (2) on a continuing basis as current employees seek advanced training and new employees must be trained before going "live" on duty. This specifically excludes training on the CAD/RMS system and the new communications system, the respective costs of which are included in the budgets for those systems and services.
15. **5310: Data Processing Systems and Services:** Funds the development, implementation and annual services for the web-based Integrated Financial Management System and Payroll/Human Resources System.
16. **5740: Insurance Premiums:** The estimated cost here reflects the need for (1) coverage usually maintained by public entities in such areas as general liability, public officials or automobile as well as (2) the special risk associated with the RECC's operations as an emergency dispatching agency as this may affect coverage such as terrorism or excess umbrella.
17. **5782: Reserve Fund Appropriations:** The amount here is less than one percent (1%) of the RECC's budget.

18. **5783 and 5784: Reserves for Computer Hardware and Communications:** These provide reserves for replacement of these items.
19. **5810: Land:** This assumes the acquisition of the land for the site of the new RECC at a cost not greater than \$750,000.
20. **5851: Automobiles:** The budget proposes the procurement of seven economy-class automobiles for the use of the Executive Director, CIO, the two IT Support Specialists, the Network and Security Manager and the Telecommunications Manager at a cost of \$175,000. Purchase is recommended rather than leasing because of the need not to have any mileage limitations or surcharges. Also, these vehicles should be expected to have a useful lifetime of at least five years, well beyond the normal lease term.
21. **5853-5856: Classroom and Office Equipment:** Classrooms and offices will need to be outfitted.
22. **5900ff: Debt Service:** These accounts address the costs of issuing and repaying notes and bonds for (1) the construction of the new RECC center; (2) the communications infrastructure; and (3) the new CAD/RMS system. These capital costs are summarized as follows:

Table 26
Capital Costs

Item Description	Capital Cost
RECC Building/Facility	\$4,962,000
RECC Communications Infrastructure	\$3,620,720
RECC CAD/RMS System	\$2,492,525
Total Capital Costs:	\$11,075,245

The cost of borrowing is based on terms, respectively, of (1) 10 years for the CAD/RMS system and communications infrastructure and (2) 20 years for the RECC building. Should Senate 2037 be enacted, it authorizes borrowing for not more than 25 years. This longer term would be able to be used for the borrowing for the RECC building, thus reducing fairly significantly the annual incidence of debt service to be paid by the RECC's towns.

H. CURRENT EXPENDITURES FOR DISPATCHING

The eight (8) Towns in the MRPSC currently spend an estimated \$5,193,692 per year for the same emergency communications services as the RECC would provide. Table 27 presents each Town's current reported annual expenditures for emergency-communications services.

Table 27
Current Municipal Expenditures for Dispatching

Town	Police	Fire	Joint	Total
Ashland ¹				\$461,400
Framingham ¹				\$2,013,730
Holliston	\$434,245	\$205,315		\$639,560
Hopkinton ¹				\$439,680
Natick			\$746,726	\$746,726
Sherborn ²				\$250,000
Sudbury	\$303,851	\$137,000		\$440,851
Wayland			\$405,060	\$405,060
Total:	\$738,096	\$342,315	\$746,726	\$5,399,007

1: These costs are estimated at a per capita rate of \$30.00

2: These costs are estimated at a rate of \$50,000 per patrol officer (5 personnel)

The costs contained in Table 27 were determined through the distribution of a survey to each participating Town as well as numerous follow-up telephone calls and visits. Notwithstanding this effort, this Feasibility Study recognizes that not all of this information is necessarily complete and consistent among all eight Towns.

I. APPORTIONMENT OF EXPENSES

1. *The new RECC is estimated to save the 8 towns collectively \$147,007 per year or almost \$1.5-million over 10 years.*

Table 28 derives the cost of the MRPSC RECC to each town. This Table uses \$5,250,000 as the new net annual cost for the RECC. It also calculates the estimated cost advantage or disadvantage, not including related mandatory or optional local expenditures as this Feasibility Study discusses later in this section.

Table 28
Estimated Town RECC Cost

Town	2009 Population	% of Total Population	Current Annual Cost	RECC Annual Cost	Annual Cost Difference	Annual Percentage Difference
Ashland	15,381	8.58%	\$461,400	\$450,600	\$10,800	2.34%
Framingham	67,191	37.49%	\$2,013,730	\$1,968,420	\$45,310	2.25%
Holliston	14,191	7.92%	\$639,560	\$415,738	\$223,822	35.00%
Hopkinton	14,656	8.18%	\$439,680	\$429,361	\$10,319	2.35%
Natick	32,335	18.04%	\$746,726	\$947,283	(\$200,557)	-26.86%
Sherborn	4,288	2.39%	\$250,000	\$125,621	\$124,379	49.75%
Sudbury	17,662	9.86%	\$440,851	\$517,424	(\$76,573)	-17.37%
Wayland	13,502	7.53%	\$405,060	\$395,553	\$9,507	2.35%
Total:	179,206	100.00%	\$5,397,007	\$5,250,000	\$147,007	2.72%
Annual Cost:	\$5,250,000					

The estimated savings of \$147,007 per year extends to savings of almost \$1.5-million for the eight towns collectively over 10 years.

2. *Billing for membership in the RECC should be based solely on population until there is specific information from the RECC's new CAD/RMS and telecommunications systems to provide consistent information on such factors as the number of emergency or non-emergency calls related to each municipality.*

Call-based billing cannot be done at the outset since the eight municipalities do not now follow a single, completely consistent methodology in how they classify and count calls. This will be able to be done only when the RECC has comprehensive information from its new CAD/RMS system on which to make informed decisions about the basis for billing.

Where the RECC does not go into “live” operation on a phased-in basis until October 1, 2015 (FY2016), consistent and reliable information regarding each town’s volume of emergency and non-emergency calls will not be available for a full calendar year until at least CY 2016 and for a complete fiscal year until FY2017 (July 1, 2016-June 30, 2017).

3. *A guiding principle of the RECC for apportionment of expenses should be the use of a methodology which is equitable, transparent, easy to administer and readily understandable to non-technical personnel.*

As a general proposition, similar centers tend to use a formula based on such factors as (1) the number of emergency calls, (2) the number of non-emergency calls or (3) population. Where multiple factors are involved, these are sometimes weighted to reflect the center’s own judgment about their relative significance in that center’s operation. Interesting variations include having the apportionment calculated on a three-year rolling basis in order not to have a “spike” in any one year in a participating municipality’s assessment. The RECC’s Board of Directors should be open to amending this formula for good reason from time to time.

In this connection, Section 18Q of Senate 2037 authorizes the regional board to incorporate in the written agreement among the towns for the RECC “...the financial terms and conditions of membership...” and “...the sharing of construction and operating costs....”

4. *The participation of the Middlesex Sheriff’s Office (MSO) may also need to be considered in the apportionment of expenses.*

On the one hand, the MSO may very well be contributing certain services of value to the RECC’s operation. At the same time, the MSO may also be making use of some of the RECC’s services. In the nature of the MSO’s work, the usual metrics like number of emergency or non-emergency calls may not apply to the MSO in the same way as they would to a municipality.

5. *Each town may also need to address one-time or ongoing costs which are specific to itself.*

Every town may face a variety of costs, whether one-time or ongoing, related to its participation in the RECC.

These costs, deriving from this Feasibility Study, may occur:

- a. As part of a *mandatory upgrade or replacement*, e.g., of its fiber optic or microwave communications infrastructure or end-user hardware including such things as RMS workstations or MCT's in order to meet the standards of the new CAD/RMS system; or
- b. As a *local option* where the Town may decide that the advent of the new CAD/RMS system is a good opportunity to enhance its public-safety technology, e.g., by adding new MCTs where none or fewer had previously existed.

Depending on the current status of each Town's computing and communications infrastructure as well as its own priorities generally, these additional one-time costs could amount to several tens of thousands of dollars or more. As well, there may be related annual maintenance or support costs.

Part of this Feasibility Study's challenge in estimating one-time or ongoing costs for the eight towns is that they vary widely both in the current condition of their respective computing and communications infrastructure as well as in changes which they may need to made prospectively. Where reasonable estimates of one-time or annual costs likely affecting all eight towns can be made, this has been done. Examples include the cost of conversion in Table 14 and the cost of fiber-optic connections in Tables 23 and 24.

More generally, each town will need to address how costs related to its continuing operational requirements or local policies and procedures may be affected with the advent of the RECC. These cost-related issues typically involve such things as the need:

- a. If determined by a town, to continue staffing of its police or fire stations on a 7x24 or other basis, whether with sworn or civilian part- or full-time personnel.
 - b. To maintain its own fiber optic or other town-based communications infrastructure.
 - c. To monitor persons in custody.
 - d. To process arrestees.
 - e. To provide various support-staff services now done by a town's sworn or civilian dispatchers.
6. *The original group of eight Towns may be able to benefit immediately and directly by actively soliciting the participation of one or more additional municipalities as "charter members" of the RECC.*

Part of the Scope of Work of this Feasibility Study was to look at the addition of an additional two to six towns to the original eight in the MRPSC RECC.

Two towns with a combined population of approximately 30,000 should add little marginal burden to the RECC's finances or operations. The main, additional cost to the RECC would be for 1 additional call taker or dispatcher to be assigned to the daytime tour, requiring 1.5 FTE's to provide full coverage over 7 days. With a base salary of \$48,000 per year, this would total \$94,320 (\$72,000 for salary and \$22,320 in benefits). In addition, there may other costs for things like (1) seat licenses and

maintenance for information systems and (2) the development and maintenance of communications infrastructure, estimated at \$400,000 one-time (reflected in debt service) and \$50,000 per year. Altogether, then, this Feasibility Study adds \$144,320 for the marginal cost of adding the two towns with 30,000 population.

Table 29 shows how the addition of two new members with a combined population of 30,000 would affect the original towns' respective assessments. *Having these ninth and tenth new members could benefit the original eight towns collectively by \$629,222 per year, \$3,146,110 over five years or \$6,292,220 over 10 years.*

Table 29
Addition of Ninth and Tenth Municipalities

Town	2009 Population	Percentage Population 10 Towns	Percentage Population 8 Towns	Current Annual Cost	RECC Annual Cost 8 Towns	RECC Annual Cost 10 Towns	Annual Cost Difference 8 Towns	Annual Cost Difference 10 Towns	Annual Cost Difference 10 vs 8
Ashland	15,381	7.35%	8.58%	\$461,400	\$450,600	\$396,595	\$10,800	\$64,805	54,005
Framingham	67,191	32.12%	37.49%	\$2,013,730	\$1,968,420	\$1,732,502	\$45,310	\$281,228	235,919
Holliston	14,191	6.78%	7.92%	\$639,560	\$415,738	\$365,911	\$223,822	\$273,649	49,827
Hopkinton	14,656	7.01%	8.18%	\$439,680	\$429,361	\$377,901	\$10,319	\$61,779	51,460
Natick	32,335	15.46%	18.04%	\$746,726	\$947,283	\$833,749	(\$200,557)	(\$87,023)	113,534
Sherborn	4,288	2.05%	2.39%	\$250,000	\$125,621	\$110,565	\$124,379	\$139,435	15,056
Sudbury	17,662	8.44%	9.86%	\$440,851	\$517,424	\$455,410	(\$76,573)	(\$14,559)	62,014
Wayland	13,502	6.45%	7.53%	\$405,060	\$395,553	\$348,145	\$9,507	56,915	47,408
Towns 9 & 10	30,000	14.34%	----	\$900,000	----	\$773,542	----	126,458	----
Total:	\$209,206	100.00%	100.00%	\$6,297,007	\$5,250,000	\$5,394,320	\$1,047,007	\$902,687	\$629,222

J. IMPACT OF GRANT FUNDS ON PER CAPITA ASSESSMENTS

To this point, this section of the Feasibility Study has made no assumptions about the availability or use of grant funds since this is a highly uncertain proposition.

Having said that, this subsection responds to the scope of work of this Feasibility Study and identifies several possible sources of funds to support different aspects of the RECC.

Table 30 presents several scenarios related to the RECC's possibly receiving different amounts of grant assistance.

Because most financial assistance of this kind applies to one-time expenditures, this Feasibility Study applies the one-time grants in their respective amounts to the reduction of annual debt service for computing and communications.

This Feasibility Study emphasizes in the strongest possible terms that this information is for illustrative purposes only with no general or specific expectations regarding this funding.

Table 30
Net Impact of Grants on Annual Assessment

Town	2009 Population	% of Total Population	Current Annual Cost	RECC Cost No Grant	RECC Cost \$3 Million Grant	RECC Cost \$2 Million Grant	RECC Cost \$1 Million Grant
Ashland	15,381	8.58%	\$461,400	\$450,600	\$418,414	\$429,143	\$441,159
Framingham	67,191	37.49%	\$2,013,730	\$1,968,420	\$1,827,819	\$1,874,686	\$1,927,177
Holliston	14,191	7.92%	\$639,560	\$415,738	\$386,042	\$395,941	\$407,027
Hopkinton	14,656	8.18%	\$439,680	\$429,361	\$398,692	\$408,915	\$420,364
Natick	32,335	18.04%	\$746,726	\$947,283	\$879,620	\$902,174	\$927,435
Sherborn	4,288	2.39%	\$250,000	\$125,621	\$116,648	\$119,639	\$122,989
Sudbury	17,662	9.86%	\$440,851	\$517,424	\$480,465	\$492,785	\$506,583
Wayland	13,502	7.53%	\$405,060	\$395,553	\$367,299	\$376,717	\$387,265
Total:	179,206	100.00%	\$5,397,007	\$5,250,000	\$4,875,000	\$5,000,000	\$5,140,000

Note: Calculations for impact of grant amount are based on using 100 percent of the grant to offset the principal amount needed to be borrowed for CAD/RMS system and communications infrastructure thus reducing annual principal and interest payments on the borrowing.

K. FINANCIAL ASSISTANCE

1. *The RECC should pursue all available avenues in seeking financial assistance from governmental sources.*

The Commonwealth and U.S. Government have several programs which are targeted to (1) supporting the implementation of regional centers like the RECC; or (2) funding specific elements required for their operations such as facility construction, information technology and communications. Particular sources of potential funding should be pursued, including the following among others.

- a. **Massachusetts Executive Office of Public Safety and Security (EOPSS): State 911 Department.** The Regional Emergency Communication Center Development Grants are the Commonwealth's vehicle, as its FY2012 Guidelines and Application Package states at Section IV, page 5, "...to support the development and startup of regional PSAPs and regional secondary PSAPs and regional emergency communication centers, including the expansion or upgrade of existing regional PSAPs and regional secondary PSAPs, to maximize effective emergency 911 and dispatch services as well as regional interoperability."

The State 911 Department, which is part of EOPSS, administers this program.

Section I.C. of the FY2012 Development Grant Application, entitled "Regional Development, Expansion or Upgrade," includes on pages 8 and 9 two categories of financial assistance, both of which fit exactly with what the MRPSC RECC will need to address as its major capital costs:

1. Facility Construction and/or Structural Improvement
"Current and proposed regional PSAPs, regional secondary PSAPs, and regional emergency communication centers, and the Middleborough and Northampton wireless state police PSAPs, are eligible to apply for funds to support construction of new or improvement of existing regional PSAP, regional secondary PSAP, and regional emergency communication center facilities."
2. Equipment
"Equipment to be used directly in the provision of enhanced 911 service and that is not directly provided by the State 911 Department, including but not limited to, radio systems, radio consoles, CAD, and records management systems. All radio systems shall comply with EOPSS Statewide Inter-Operability Emergency Communications guidelines."

- Deadlines for applications under this program are established periodically by the State 911 Department. In the last several years, applications for development grants have been due around May 20th of each year. The Rollout Plan included in this Feasibility Study specifically identifies the need for the MRPSC to submit the Development Grant application in May, 2012.
- b. U. S. Department of Justice (DOJ).** DOJ, mainly through the Bureau of Justice Assistance (BJA), organizes most of its funding through state-level agencies like EOPSS in Massachusetts. The RECC will need to examine the terms and conditions of each potential grant individually.
- Edward Byrne Memorial Justice Assistance Grant (JAG) Program. This program matches the RECC in two important respects: (1) the emphasis on improving the technology and tools used to prevent, detect and fight crime; and (2) cross-jurisdictional needs.
 - Local Law Enforcement Block Grant Program. These funds may be used for various purposes involved in the implementation and operation of the RECC including the hiring, training and employment of support personnel or the procurement of equipment and technology "...related to basic law enforcement."
 - Regional Information Sharing Systems (RISS) Program. RISS promotes intergovernmental coordination and communication, oriented to addressing criminal conspiracies and activities that span multijurisdictional boundaries.
- c. U.S. Department of Transportation, National Highway Traffic Safety Administration (NHTSA). ENHANCE 911 Act Grant Program.** This program may be used for the acquisition and deployment of hardware and software that enable the implementation and deployment of Phase II E-911 services, and related services.
- d. U. S. Department of Homeland Security (DHS).**
- **Homeland Security Grant Program** may be able to provide funds for the RECC.
 - **Office of Emergency Communications** provides no-cost services including instruction and assistance with the planning, governance, operational, and technical aspects of developing and implementing interoperable communications initiatives.
- e. U.S. Department of Commerce, National Telecommunications and Information Administration. Public Safety Interoperable Communications (PSIC) Grant Program.** These grants fund interoperable communications projects, with an emphasis on helping first responders improve public-safety communications during a natural or man-made disaster.
-

2. *The RECC should seek corporate contributions where this involves no conflict of interest.*

The RECC may be able to obtain funds from corporations in the area. It will be important to be sure that any such gift not involve a real or perceived conflict of interest.

While it is difficult to estimate the level of funding or purposes for which it may be available, the scope of the RECC's needs is broad enough and the nature of this endeavor new enough to Massachusetts that every effort should be made to pursue these funds.

L. LATE MEMBERSHIP

1. *Any municipality which joins the RECC after the period for original charter membership should pay a one-time late-membership fee.*

This fee has several legitimate purposes.

- a. A fiscal incentive should exist for interested municipalities to commit to the RECC from the outset, supporting its organization, policy-making and management.
- b. Those municipalities who commit to the RECC from the outset should not be disadvantaged by any special fiscal burden for having made this decision.
- c. Municipalities who do *not* commit to the RECC from the beginning should not gain a fiscal advantage from having made that decision.

The RECC's Board of Directors should determine the (1) amount of and (2) basis for assessment of this fee. This will need to consider both capital and operating costs as well as all marginal impacts, fiscal or operational, which each such member's addition may present.

M. PROCUREMENT

1. *The RECC should look continuously to U. S. Government and Commonwealth sources in its procurement.*

The RECC will be procuring a wide range of goods and services from telecommunications to motor vehicles. The Commonwealth has had a program of cooperative purchasing in place for more than 30 years.

The U.S. General Services Administration (GSA) has similar offerings. Of particular potential interest is its Schedule 84, Total Solutions for Law Enforcement, Security, Facilities Management, Fire, Rescue, Clothing, Marine Craft and Emergency/Disaster Response. This is a preapproved roster of security and emergency-services vendors.

Governmental entities in the Commonwealth are authorized to participate in GSA and other avenues of procurement involving public agencies outside Massachusetts for which authorization had not previously existed.

Similarly, the Commonwealth has a series of vehicles under the rubric of Information Technology (IT) which cover a wide range of goods and services related to IT and communications.

Section Ten Rollout Plan

Section Ten: Roll Out Plan Summary of Key Findings and Recommendations

1. The rollout plan incorporates all actionable items specified in this Feasibility Study and its scope of work, taking a realistic view of the time required for each task.
2. This Feasibility Study foresees the towns' boards of selectmen voting by the end of May, 2013 to join the RECC, making the 10-year commitment to RECC membership, assuming enactment by June 30, 2013 of the enabling legislation now pending in the General Court.
3. The rollout plan recognizes the interdependence among tasks throughout the Feasibility Study and which tasks are prerequisites to others.
4. The rollout plan recommends the gradual operational implementation of the new RECC, with two towns in the initial "Go Live" on October 1, 2015 and then one additional member going "live" every two months. This will help to assure that all aspects of the RECC's organizational and technical infrastructure are in place and working as intended.
5. The MRPSC and Board of Directors should report in writing to the chief administrative officer, police chief and fire chief in each municipality on a monthly basis beginning as soon as practicable.
6. MRPSC should establish a Web site as soon as possible to facilitate communication.
7. A project manager will need to be identified who can devote significant time and effort to assuring that the rollout plan proceeds on a timely basis.
8. The Committees established as part of this Feasibility Study should continue to be active. Additional committees and subcommittees should be organized to complement the eight original committees.
9. The RECC should be fully operational with all infrastructure in place at least 90 calendar days before its live operation.

A. OVERVIEW

The rollout plan, presented in Table 31 in Appendix B, brings together in one place a clear, consistent approach to the scheduling of all actions involved in making the RECC a reality. It incorporates all actionable items specified in this Feasibility Study and its scope of work.

B. FINDINGS AND RECOMMENDATIONS

1. The rollout plan must take a conservative view of the time required for each task in the development and implementation of the RECC.

A few examples are instructive here.

- The design and construction of the RECC's new center is estimated to take 21 months from the time the architect is engaged and given notice to proceed to completion of construction. This timeframe for design and construction controls the schedule for the rest of the planning and implementation of the RECC. With a projected "Go Live" date of October 1, 2015, this means that the RECC's staff would not be able to occupy the new facility until June, 2015.
- The procurement and implementation of the new CAD/RMS system and the new communications infrastructure will each take at least 18 months.

2. The rollout plan recognizes the interdependence among tasks.

For instance, the RECC cannot begin any task involving the expenditure of funds, the employment of personnel or the procurement of goods or services until its enabling legislation has become effective and the towns have decided formally to become members.

3. The rollout plan assumes that efforts to realize the RECC will continue immediately upon submission of this Feasibility Study without any significant interruption.

Most critical to the entire rollout plan would be any delay of consequence in (1) the enactment of State enabling legislation for the institutional platform; or (2) decision-making by municipalities regarding membership in the RECC.

4. This Feasibility Study foresees votes from town boards of selectmen to execute the inter-municipal agreement, making the 10-year commitment to RECC membership, occurring by the end of May, 2013.

The pending State legislation, Senate 2037, Section 18P establishes a specific procedure for towns' consideration of membership in the RECC.

- a. Each town appoints a representative to the regional 911 emergency communication district planning committee.
- b. The planning committee then is charged with studying "...the advisability and feasibility of establishing a regional 911 emergency communication district, its organization, operation and control, and of selecting, constructing, maintaining and operating a regional 911 emergency communication center to serve the needs of the district, and shall estimate construction and operating costs and study methods of financing such district."
- c. The district planning board drafts an inter-municipal agreement, addressing the full range of terms and conditions of membership as well as other issues related to the RECC's policy-making, management and operations.
- d. The district planning board issues its report to the towns, along with a copy of the proposed agreement.
- e. The board of selectmen in each town then has 45 days after receipt of the planning board's recommendation to vote on membership.

Assuming the enactment of Senate 2037 by June 30, 2012, the towns would have 11 months from July, 2012 through May, 2013 to organize the district planning board, have that group do its work per Senate 2037, and make decisions about membership.

This schedule would enable the new RECC to be established as a legal entity in the Commonwealth as of July 1, 2013, the beginning of Fiscal Year 2014, as the Rollout Plan in Appendix B of this Feasibility Study shows. Assuming 27 months of lead time, "live" operation of the MRPSC RECC would then commence on October 1, 2015.

The timing of the towns' decision-making has a critical effect on such tasks as the design and construction of the RECC's new center as well as procurement and implementation of the RECC's computing and communications infrastructure. None of these can proceed until the membership and, thus, the scale of the RECC's operation is known.

Senate 2037, Section 18P also funds the study process by authorizing each town to "...appropriate a sum not in excess of one dollar per capita for the purpose of meeting the expenses of the [planning] board."

5. *The MRPSC's key Committees should continue to be active and be supplemented with subcommittees as may be appropriate.*

The committees form a critical part of the ongoing process for planning and operation of the RECC. These should include:

- Site Selection
- Emergency Communications
- Computer Technology
- Governance, Organization, Staffing and Financing
- Public Information

In addition, the RECC ought to consider establishing subcommittees where appropriate. One example would be a financial group within the Committee on Governance, Organization, Staffing and Finance. Another would be a Geographic Information Systems (GIS) group within the Committee on Computer Technology.

As with this Feasibility Study's recommendations regarding the participation of all major disciplines on the RECC's Board of Directors, the work of the various committees and subcommittees will be enriched by having broad involvement of municipal personnel.

The RECC's Towns and the MSO have an enormous amount of knowledge and experience to contribute as this process moves forward. The RECC will also need to assure itself that no conflict of interest may exist for any of these participants or others.

Section Eleven Conclusion

This Feasibility Study concludes that the RECC offers substantial opportunities for enhancing emergency services to the participating agencies and the people they serve at the same time as it is estimated to provide financial benefit to six of the eight original MRPSC towns.

The first order of business for the MRPSC, assuming timely enactment of Senate 2037, is to work on a highly coordinated and cohesive basis to define who among these eight towns, or which other towns not originally included in this Feasibility Study, may have a serious interest in pursuing this RECC.

Thereafter, the interested towns will need to work expeditiously to (1) organize the regional 911 emergency communication district planning board and (2) be sure that it has completed its work in time for full consideration by each town and its board of selectmen with decision-making regarding membership in the RECC occurring prior to May 31, 2013.

The MRPSC should take the information in this Feasibility Study and continue to meet and communicate regularly, taking advantage of all opportunities to bring this idea to a reality.

Appendix A
Senate 2037: Bill to Enable
Regional Emergency Communications Centers

SENATE No. 02037

[Senate, October 20, 2011 -- New draft of S1256 reported from the committee on Public Safety and Homeland Security]

The Commonwealth of Massachusetts

In the Year Two Thousand Eleven

An Act relative to regional 911 emergency communication districts.

Whereas, the deferred operation of this act would tend to defeat its purpose, which is forthwith to maximize effective emergency and 911 dispatch services as well as regional interoperability for the citizens of the commonwealth, therefore, it is hereby declared to be an emergency law, therefore, it is hereby declared to be an emergency law, necessary for the immediate preservation of the public safety.

□

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

1 SECTION 1. Chapter 6A of the General Laws, as appearing in the 2006 Official Edition,
2 is hereby amended by inserting after section 18L the following new sections:-

3 Section 18M. Regional emergency communication center defined

4 A regional emergency communication center is defined as stated in chapter 6A, section
5 18A of the General Laws.

6 Section 18N. Regional public safety answering point defined

7 Section 18N. A regional public safety answering point is defined as stated in chapter 6A,
8 section 18A of the General Laws.

9 Section 18O. Regional 911 emergency communication district planning committee

10 Section 18O. A city or town, by vote of the council in the case of a city or by vote of the
11 board of selectmen or town council in the case of a town, may create a special unpaid committee
12 to be known as a regional 911 emergency communication district planning committee consisting
13 of three persons to be appointed by the chairman of the board of selectmen or town council in a
14 town and by the mayor in a city.

15 Section 18P. Regional 911 emergency communication district planning board; study of
16 creation of district; expenses of board; regional 911 emergency communication district defined

17 Section 18P. Regional 911 emergency communication district planning committees from any
18 two or more cities or towns may join together to form a regional 911 emergency communication
19 district planning board. Such 911 regional emergency communication district planning board
20 shall study the advisability and feasibility of establishing a regional 911 emergency
21 communication district, its organization, operation and control, and of selecting, constructing,
22 maintaining and operating a regional 911 emergency communication center to serve the needs of
23 the district, and shall estimate construction and operating costs and study methods of financing
24 such district. Each city or town comprising such board may appropriate a sum not in excess of
25 one dollar per capita for the purpose of meeting the expenses of the board. Such board may
26 expend any such sums so appropriated and may employ such expert assistance as it deems
27 necessary. Such board may apply for, accept and expend, without appropriation, grants or gifts of

28 funds from the federal or state government or any other source. As used in this section and in
29 sections eighteen M through eighteen Y, inclusive, the term “regional 911 emergency
30 communication center” shall mean a facility housing or otherwise supporting a regional
31 emergency communication center or regional public safety answering point as approved by the
32 state 911 department.

33 Section 18Q. Regional 911 emergency communication district planning board; agreement
34 for establishment of district

35 Section 18Q. The regional 911 emergency communication district planning board,
36 consisting only of the regional 911 emergency communication district planning committees ,
37 shall draw up a proposed written agreement for the purpose of establishing, constructing,
38 equipping, operating, and maintaining a regional 911 emergency communication center.

39 The said agreement shall contain provisions describing and providing for the financial
40 terms and conditions of membership, sharing of construction and operating costs, the number,
41 method of selection and terms of office of the members of the regional 911 emergency
42 communication district committee, the general area in which the regional 911 emergency
43 communication center shall be constructed or located, the terms by which another city or town
44 may be admitted to the district, the terms by which a city or town may withdraw from the
45 district, the method by which the agreement may be amended, the methods of termination of the
46 district, the procedure for the preparation and adoption of the annual budget and any other
47 matters, not incompatible with law, which said board may deem advisable; provided, however,
48 that the regional emergency communication center or the regional public safety answering point
49 shall be subject to the approval of the state 911 department.

50 Section 18R. Report of board

51 Section 18R. The regional 911 emergency communication district planning board shall
52 report its findings and recommendations to city council and the board of selectmen or town
53 council, as the case may be, of each city or town comprising the board. If the board recommends
54 that a regional 911 emergency communication district be established, a copy of the proposed
55 agreement shall accompany the report to each such city or town.

56 Section 18S. Acceptance of recommendation; election; establishment of district

57 Section 18S. The city councils of the several cities or the boards of selectmen or town
58 councils of the several towns, upon receipt of a recommendation that a regional 911 emergency
59 communication district be established, shall vote on the question of accepting such plan within
60 forty-five days after receipt of the recommendation. In the case of either a town or a city, the
61 question to be voted on shall be:—"Shall the city (town) accept the provisions of sections 18M to
62 18Z, inclusive, of chapter 6A of the General Laws providing for the establishment of a regional
63 911 emergency communication district, together with the towns of _____ and
64 the cities of _____, and the construction, maintenance and operation of a
65 regional 911 emergency communication center by said district in accordance with the provisions
66 of a proposed agreement filed with the board of selectmen, town council or the city council?"

67 If a majority of the members of each city council, board of selectmen or town council voting on
68 the question shall vote in the affirmative, the proposed regional 911 emergency communication
69 district shall be deemed to be established forthwith in accordance with the terms of the proposed
70 agreement.

71 Section 18T. General powers of district

72 Section 18T. A regional 911 emergency communication district, established under the
73 provisions of section eighteen S, shall be deemed to be a public employer and shall be a body
74 politic and corporate with the following powers and duties:—

75 (a) To adopt a name and a corporate seal, and the engraved or printed facsimile of such
76 seal appearing on a bond or note of the district shall have the same legal effect as such seal
77 would have if it were impressed thereon.

78 (b) To sue and be sued, but only to the same extent and upon the same conditions that a
79 city or town may be sued.

80 (c) To purchase, lease, or take by eminent domain under chapter seventy-nine land within
81 the cities and towns which have accepted the provisions of sections sixty A to sixty L, inclusive,
82 for the purposes of the district, to enter into contracts for the purchase of equipment, buildings,
83 supplies, materials, and services and to construct, equip, and maintain a regional 911 emergency
84 communication center for the benefit of the members of the district, and to make any necessary
85 contracts in relation thereto.

86 (d) To incur debt for the purpose of acquiring land, buildings, and equipment and
87 constructing, equipping, and maintaining a regional 911 emergency communication center for a
88 term not exceeding twenty-five years; and provided, further, that written notice of the amount of
89 the debt and of the general purposes for which it was authorized shall be given to the city council
90 of each city, and to the board of selectmen or town council of each town, comprising the district
91 not later than seven days after the date on which said debt was authorized by the district
92 committee; and no debt may be incurred until the expiration of thirty days from the date said
93 debt was authorized by the district committee. If, prior to the expiration of said period, the city

94 council of any member city or the board of selectmen or town council of any member town
95 expresses disapproval of the amount authorized by the district committee, the said debt shall not
96 be incurred and the regional 911 emergency communication district planning committee shall
97 thereupon prepare another proposal which may be the same as any prior proposal and an
98 authorization to incur debt therefor.

99 (e) To issue bonds and notes in the name and upon the full faith and credit of said district;
100 said bonds or notes shall be signed by the chairman and the treasurer of the district committee,
101 except that said chairman by a writing bearing his written signature and filed in the office of said
102 treasurer, which writing shall be open to public inspection, may authorize said treasurer to cause
103 to be engraved or printed on said bonds or notes a facsimile of said chairman's signature, and
104 such facsimile signature so engraved or printed shall have the same validity and effect as said
105 chairman's written signature, and each issue of bonds or notes shall be a separate loan.

106 (f) To receive and disburse funds for any district purpose.

107 (g) To incur short term debt in anticipation of revenue to be received from members.

108 (h) To assess member cities and towns for any expenses of the district.

109 (i) To apply for and receive any grants or gifts for the purposes of the district.

110 (j) To engage legal counsel.

111 (k) To submit an annual report to each of the member cities and towns, containing a
112 detailed financial statement, and a statement showing the method by which the annual charges
113 assessed against each city and town were computed.

114 (l) To employ an executive director and such other employees as it deems necessary to
115 operate such district and to establish the duties, compensation, benefits, and other terms and
116 conditions of employment of personnel.

117 (m) To adopt an annual operating budget.

118 (n) To enter into contracts for 911 emergency communication center services with non-
119 member cities and towns and governmental bodies as well as other bodies politic, the United
120 States of America and other persons.

121 Section 18U. Exercise of powers; officers of committee

122 Section 18U. The powers, duties and liabilities of a regional 911 emergency
123 communication district shall be vested in and exercised by a regional 911 emergency
124 communication district committee organized in accordance with the agreement. The committee
125 shall choose a chairman by ballot from its membership. It shall appoint a secretary and a
126 treasurer, who may be the same person, but who need not be members of said committee. The
127 treasurer shall receive and take charge of all money belonging to the district and shall pay any
128 bill of the district which shall have been approved by the committee. The treasurer may, by vote
129 of said committee, be compensated for his services. The treasurer of said district shall be subject
130 to the provisions of sections thirty-five, fifty-two and one hundred and nine A of chapter forty-
131 one, to the extent applicable.

132 Section 18V. Maintenance and operating expenses; debts; determination and
133 apportionment

134 Section 18V. The regional 911 emergency communication district committee shall
135 annually determine the amounts necessary to be raised to maintain and operate the district during
136 the ensuing fiscal year, and the amounts required for payment of debt and interest incurred by the
137 district which will be due in the said year, and shall apportion the amount so determined among
138 the several member cities and towns in accordance with the terms of the agreement. The amounts
139 so apportioned for each city or town shall, prior to March thirty-first in each year, be certified by
140 the regional district treasurer to the treasurers of the several cities and towns. The obligation of
141 each member city or town to pay apportionments pursuant to the agreement shall be included in
142 the amounts to be assessed annually in such city or town under section twenty-three of chapter
143 fifty-nine without appropriation and the city or town treasurer shall pay to the district the
144 amounts so apportioned at the times specified in the agreement. The amounts apportioned or to
145 be apportioned pursuant to the agreement shall not be included in the statutory limit of
146 indebtedness of any city or town.

147 Section 18W. Audits and reports

148 Section 18W. The regional 911 emergency communication district shall maintain
149 accurate and comprehensive records of services performed, costs incurred, and reimbursements
150 and contributions received; shall issue annual and quarterly financial statements to all members;
151 and shall perform regular audits of the accounts of the records of the district. Upon the
152 completion of each audit, a report thereon shall be made to the chairman of said district
153 committee, and a copy thereof shall be sent to the mayor and to the chairman of the board of
154 selectmen or town council, respectively, of each city and town which is a member of said
155 district.

156 Section 18X. Sale, lease or license of lands or facilities to regional 911 emergency
157 communication districts

158 Section 18X. The agreement made under section eighteen Q, or any amendment to such
159 an agreement, may contain provisions authorizing any member city or town to sell, lease or
160 license to the regional 911 emergency communication district any emergency communication
161 center facility, building, and any land appurtenant thereto or used in connection therewith or any
162 other property useful for the purposes of the district, and any such city or town may authorize
163 such sale, lease or license accordingly, notwithstanding the provisions of section three of chapter
164 forty or any other provisions of law to the contrary. In case of a sale, the price and time or times
165 of payment and the method by which the cities and towns other than the selling city or town shall
166 be assessed for such payment shall be set forth in the agreement or amendment; but in no case
167 shall payments be made which shall extend over a period in excess of twenty-five years. In the
168 case of a lease or license, the rental or license fee and terms of payment and assessment shall be
169 set forth in the agreement or amendment. The lease or license may be for a term not in excess of
170 twenty-five years, and may contain provisions for the extension of the lease or license for an
171 additional term not in excess of twenty-five years at the option of the regional 911 emergency
172 communication district committee.

173 Section 18Y. Bonds and notes; limit of indebtedness

174 Section 18Y. The provisions of sections sixteen to twenty-eight, inclusive, of chapter
175 forty-four shall, so far as apt, apply to regional 911 emergency communication districts, but the
176 provisions of section sixteen relating to the countersigning of bonds and notes and the provisions
177 of section twenty-four relating to the countersigning and approval of notes and the certificates of

178 the clerk relating thereto shall not apply to such districts. Any debt incurred by a regional 911
179 emergency communication district shall not be subject to the limit of indebtedness prescribed in
180 section ten of chapter sixty.

181 SECTION 2. This Act shall take effect upon its passage.

Appendix B
Table 31
RECC Rollout Plan

