

FINAL REPORT

MANCHESTER AND DORSET, VERMONT
PUBLIC SAFETY COLLABORATION STUDY
FIRE SERVICES MANCHESTER AND DORSET

APRIL 2015

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I - FIRE SERVICES

Fire and rescue incidents and the fire department's ability to respond, manage, and mitigate them effectively, efficiently, and safely are mission critical components of a community's overall emergency services delivery system. Insuring that the department is operationally prepared; necessary equipment is provided, tested, inspected, and maintained; and that adequate funding is allocated to insure that the department is able to fulfill its core mission, are basic responsibilities of the governing body of the municipality that it serves. Utilization of an incident command system and adherence to safety procedures are also important pieces of the system.

In addition to structural and other types of firefighting operations, the fire department is tasked with responding to and managing a broad spectrum of other types of emergencies, including, but not limited to, vehicle crashes, building collapse, water and ice rescue, mass casualty incidents, weather related emergencies, and natural and technological disasters. These types of incidents require specialized equipment and training, and in small communities are frequently handled by a regional team or by a larger, more capable neighbor. In all types of emergency responses, an incident command system (ICS) should be utilized that conforms to the National Incident Management System (NIMS) guidelines that have been promulgated by the U.S. Department of Homeland Security. Fire department operations and service delivery can be dramatically improved in those departments that commit resources to goal-setting, master planning, risk assessment, and performance measurement.

Fire protection for the towns of Manchester and Dorset is provided by three separate volunteer fire departments. Manchester is served by the Manchester Fire Department a municipally operated department that is a function of the town government. Dorset is served by two separate fire departments, the Dorset Fire District and the East Dorset Fire District. Both of these departments function independent of the primary town government, and each other, as part of autonomous fire/water districts.

Manchester and the East Dorset Fire District frequently share resources through mutual aid and tend to work well with each other. Based on the perceived level of training and number of personnel, or perhaps more accurately the lack there of, Manchester tends not to utilize the Dorset Fire District for mutual aid unless absolutely necessary. There is a general perception that the East Dorset Fire District has a higher level of organization, training, and thus capability. In the Town of Dorset both East Dorset and Dorset are dispatched simultaneously and jointly respond to all incidents.



1. Manchester Fire Department

The Manchester Fire Department is primarily a volunteer organization currently lead by Chief Phillip “Grub” Bourn. The department is well organized and well equipped to protect the community of 4,391 residents. In 2013, it responded to a total of 161 emergency incidents of which 134 were fire related and 27 were rescue types. This equates to a workload of 3.1 responses per week, or.44 calls per day, and is well within the capability of a vibrant volunteer fire department. The department is also an organization that is heavily invested in the community and regularly hosts a fundraising breakfast in the station. It was noted that this event has become a tradition that is part of the fabric of Manchester. The department also participates in a wide variety of community events that range from supporting street festivals, to providing public fire education programs. In short, the Manchester Fire Department is a healthy and operationally prepared emergency response organization.

At the time of this study the Manchester Fire Department’s roster consisted of a total 38 volunteer personnel of which about 15 (39.5%) are active and regularly respond to emergency incidents. Of these, there are a number of experienced veterans but there are also a number of younger firefighters that require training and lack experience. Although this is not an unusual situation in volunteer fire departments, particularly those serving small communities where the fire company is an important part of family tradition and the community fabric, it can create a false sense of security regarding the number of personnel who are actually trained to protect the community, and, by extension, the level of service actually available. In addition, personnel who rarely respond but may show up for “the big one” can create operational, training, and liability issues for the department and the town.

The current organizational structure of the department consists of:

- 1 - Fire Chief
- 1 - 1st Assistant Fire Chief
- 1 - 2nd Assistant Fire Chief,
- 6 - Captains
- 2 - Lieutenants
- 1 - Training Officer (at present also serves as PIO),
- 1 – Safety Officer
- 22 - Firefighters.

Although the department is considered to be a volunteer organization, its members do receive some limited compensation in the form of small stipends and insurance policies. Stipends for the department’s officers total \$ 7,700.00 annually distributed as indicated in the following chart.

POSITION	STIPEND
Fire Chief	\$4,000.00
1 st Assistant Fire Chief	\$1,200.00
2 nd Assistant Fire Chief	\$ 650.00
Procurement Officer/Ladder Captain	\$ 600.00
Secretary/Captain	\$ 600.00
Treasurer	\$ 600.00

An additional \$30,200.00 is available which is divided among the officers and firefighters based on a point system for responding to department calls. All department personnel are covered with worker's compensation. The town also provides members with an accidental death insurance policy. It is the opinion of the MRI study team that overall the Manchester Fire Department provides a tremendous service and value to the community.

However, the team also believes that it is time to invest increased financial resources in the department to avoid the long term, and much higher costs of full time employees. This increased investment should come in the form of increased financial incentive programs to recruit and retain active, participating members. It should also include increased annual stipends for the department's officers commensurate with increased administrative responsibilities and expectations, and corresponding time commitment, necessary to manage a modern emergency services organization, even a volunteer one serving a relatively small community.

The Manchester Fire Department operates from a newer station located in the town's well-designed public safety complex that was built in 1996 and houses police, fire, rescue squad and public safety dispatch operations. The fire station is in excellent condition and is of adequate size to meet the needs of Manchester for many years to come. The MRI study team found the station to be very clean; considering that the department does not have any full time personnel it indicates that the department's membership takes pride in their facility and operations and exhibit a positive culture.





Manchester Fire Department station located in the town's public safety complex.

The station is equipped throughout with an automatic fire alarm system and a complete automatic fire suppression sprinkler system. It is not outfitted with carbon monoxide (CO) detectors.

The study team observed that the station lacks a vehicle exhaust extraction system to capture and remove harmful vehicle exhaust emissions from the station. These systems are designed to enable apparatus operators to attach a large flexible hose to the exhaust pipe before backing into the station. The system fan automatically discharges vehicle exhaust to the outside atmosphere. When the vehicle is driven out of the station, the discharge hose is automatically released once the apparatus clears the station. As a result of the lack of this type of system, the department's personnel, as well as possibly personnel in the adjacent police department and communications center, are exposed on a regular basis to the harmful effects of breathing in both diesel and gasoline engine exhaust emissions. This exposure occurs during response to, and return from, emergency responses, during training exercises, routine vehicle inspections, and any other time that any vehicle in the station must be started and driven either out of, or backed into, the station.

Short term, the breathing in of diesel and gasoline fumes can cause coughing, itchy or burning eyes, chest constriction, wheezing, and difficulty breathing. Over the long-term, exposure to these fumes may increase the risk of lung cancer and possibly bladder and other cancers. There is additional evidence that the fine particles found in diesel emissions, particularly the soot, can aggravate heart problems and respiratory illnesses such as asthma. In addition, the members' personal protective equipment (PPE), which is stored in the apparatus bays, is continuously exposed to deposits of soot and other exhaust emission products that are released every time a vehicle is started in the station, resulting in a secondary exposure hazard to personnel as they perform their emergency response duties. At least one major study has concluded that diesel exhaust can penetrate into and be absorbed into clothing, furniture, and other items which

firefighters routinely are in contact with, where it can later be absorbed into the firefighter's skin. Every time the firefighters put on this gear they are being exposed to these contaminants and potential carcinogens. On the rescue side of the apparatus bays is a large wall mounted exhaust fan that vents to the exterior of the building. However, there is a sensor that is burned out and this system is not currently operational.

The Manchester Fire Department operates a total of seven (7) motorized apparatus and one (1) trailer. The current fleet consists of 2 - pumpers, 1 - 95' ladder tower (aerial truck also equipped with a pump), 1 - water tender/tanker (also equipped with a pump), 1 - rescue, 2 - brush trucks, and 1 - special operations trailer. This equipment set appears to be adequate for the diverse needs of the department and community although it is a little larger than the national averages for communities of similar size. All of the apparatus generally appeared to be in at least fair to excellent condition. Overall, the apparatus fleet is well suited for the fire protection needs of Manchester. However, some of the vehicles are quite old and are probably nearing the end of their useful service life. The department does not have any command/staff vehicles for use by the chief officers or other personnel.

The age of the apparatus currently in service ranges from 58 years old for one of the brush trucks (Engine 4) to 3 years old for the newest pumper, Engine 5. The major pieces of apparatus, Engines 5, Engine 2, and Tower 1, all appear to meet or exceed the national standards commensurate with their age, and are in good to excellent condition. One area of deficiency is that most of the apparatus do not carry a sufficient number of self-contained breathing apparatus (SCBA). Current NFPA standards require one (1) SCBA and one (1) spare cylinder for each riding position on the apparatus including the driver.

By virtue of their age, the operational capabilities and reliability of the older units would seem to be less than optimal. While not specifically reported by department personnel, it would not seem at all unreasonable that significant breakdowns/ maintenance issues can occur at any time with these units, and parts availability is probably growing scarcer.

The following information summarizes the Manchester Fire Department apparatus fleet:

- **Engine 5** the department's newest apparatus, and primary response vehicle, is a 2012 Pierce Velocity equipped with a 1500 GPM fire pump, 1000 gallon water tank, and 30 gallon foam tank and foam system. This unit appears to meet NFPA and ISOI standards for equipment. This vehicle is in excellent condition.

- **Engine 2** is a 2000 E-One equipped with a 1500 GPM fire pump, a 1200 gallon water tank, and 100 gallons of foam. It is also outfitted with an assortment of portable vehicle extrication equipment. It appears to meet NFPA and ISO requirements for equipment carried. This vehicle is in very good condition.
- **Tower 1** is an E-One 95' ladder tower that is also equipped with a 1750 GPM fire pump and a 300 gallon water tank. In addition to normal ladder/truck company equipment, it has a full complement of ground ladders, on board breathing air system, and, is outfitted with 1100' of 4" large diameter supply hose. Tower 1 is in very good condition. In addition to serving Manchester, it is the only aerial unit available for several surrounding communities.
- **Tanker 9** is a 1993 GMC/White water tanker/tender equipped with a 1500 GPM fire pump and a 2500 gallon water tank. In addition to other equipment normally found on a water transport vehicle, this truck carries a 2500 gallon portable dump tank/pond. It is in fair condition but at 22 years old is probably well into the latter half of its useful service life.
- **Rescue 10** is a 1987 Ford F-700 which carries most of the Manchester Fire Department's rescue equipment. This includes a full complement of vehicle extrication and stabilization tools and equipment. It is also equipped with a mobile air cascade system with booster for refilling self-contained breathing apparatus (SCBA) on fire scenes. This vehicle is in fair condition. However, at 28 years old it does not meet current safety standards for personnel riding positions and is nearing the end of its useful service life. Most importantly, it lists 8 available riding positions. With a 2 person cab that means that 6 of the riding positions are located in the rear box area along with any unsecured or improperly stored equipment. **In view of current safety considerations, this truck should only provide 2 riding positions in the cab.**
- **Brush 1** is a military specification Hummer (year unknown) that serves as a multi-purpose all-terrain vehicle with a slide on firefighting unit with a 250 GPM fire pump and 250 gallon water tank. This truck is equipped with an assortment of brush and wildland fire equipment and tools. However, this equipment is on a skid unit that can be removed when necessary for carrying other types of equipment. It is in fair condition.

This vehicle was originally obtained by the Manchester Police Department through a law enforcement grant program and remains under the control of the police department, although it is also operated by the fire department and Office of Emergency Management.

- **Engine 4** is the department's 2nd brush unit. It is a 1957 Jeep with a slid on firefighting unit consisting of a 150 GPM fire pump and 200 gallon water tank. It is also equipped with an assortment of wildland firefighting tools. This unit is still in fair condition (surprisingly good for being 58 years old) and is really treasured by the members of the fire department. Although it is not used very frequently, if the vehicle is going to remain in service it should be evaluated for compliance with current personnel safety equipment and updated as appropriate and reasonable.

The Manchester Fire Department is dispatched by the 911 personnel located in the police department emergency communications center. Dispatch occurs through the traditional method of tone alerting pagers carried by the members. The department does utilize the "*I am Responding*" program that allows members to notify dispatch of their response. At the time of this study, they had not adopted a cell phone dispatching procedure where personnel also receive dispatch information via text message directly to their cell phones.

Although they are generally satisfied with the dispatch service they receive, the fire officers report that there is some difficulty with correcting the occasional issues that arise with dispatch. The command staff is concerned that this impacts the quality of services and that at times their input is ignored. In addition, they tend to dispatch police to check out fire calls prior to alerting the fire department. The MRI team was advised of a recent incident where the police were dispatched to investigate an activated fire alarm with smoke in the building. The fire department was not immediately dispatched. This incident has created concern among members of the fire department regarding the capabilities of the dispatch center.

Based upon the benchmarking survey that was completed by the Manchester Fire Department to be utilized for comparative analysis of similar sized communities the department responded to 224 emergency incidents in 2013. This figure is considerably higher (63 total incidents/39%) than the 161 that were mentioned in the department's annual report and summary PowerPoint presentation to the town that was provided to the MRI study team. This discrepancy notwithstanding the department reported that:

- They responded to 5 structure fires.

- Their average response time to structure fires was eight (8) minutes.
- On only 1 occasion were they unable to respond to an incident because no one from the department responded. This was also the lone time they reported that a mutual aid department arrived on the scene of an emergency in their response area first.

Other than the basic statistics provided above and the incident breakdown provided previously in their PowerPoint (134 fire related/27 rescue related incidents) the MRI study team was not provided with any other statistical response data by the department. This includes response times, number of personnel responding, NFPA 1720¹ compliance, etc. We believe that this is primarily a result of the department either not keeping these statistics, or, the tracking software not being totally suitable for their needs, although other factors may also play a role. However, with an average response time of 8 minutes to structure fires the ability to meet response time benchmarks found in NFPA 1720 is probably inconsistent and a correlation of the travel distance to the incident.

One issue that was mentioned to the MRI study team a number of times is the high (and gradually increasing) number of minor incidents that the department responds to. Most frequently, these incidents consist of automatic fire alarm and carbon monoxide detector activations. Although the department only averages 3 to 4 calls per week, or, about 1 every other day, the issue has nonetheless caused concern among some members of the department. This in turn has created unease at the town level that if not addressed the situation could ultimately negatively impact the long term viability of the volunteer force.

It was discussed that an on-duty 2 person fire/EMS initial response force could eliminate much of this burden. While this concept may initially evoke a positive response we believe that long-term it would be counter-productive ultimately destroying the fabric and the viability of the volunteer aspect of the department. An initial response force would displace the primary volunteer response and relegate the volunteers to a secondary or back-up role. Personnel skills would also in all probability erode, as responses would become less frequent.

¹ NFPA 1720, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments*, 2010 edition (National Fire Protection Association, Quincy, MA), outlines organization and deployment of operations by volunteer/call and primarily (85%) volunteer/call fire departments.

In addition, the OSHA Respiratory Protection Standard “Two In – Two Out” rule², requires a team of 4 firefighters must be assembled before an interior fire attack can be made when the fire has progressed beyond the incipient stage, except in an imminent life threatening situation when immediate action could prevent the loss of life or serious injury before the team of 4 firefighters are assembled. However, in its broader context this rule applies to any operations that involve an atmosphere that is potentially “Immediately Dangerous to Life and Health” (IDLH). Compliance with the respiratory protection standard, which may carry the force of law depending upon the state’s application of OSHA regulations to public employees and in this case specifically volunteer firefighters, affords personnel a level of safety not provided by a two (2) person crew. As an example, a two (2) person initial response crew responding to a carbon monoxide detector activation could become compromised and/or incapacitated if there really are significant levels of carbon monoxide present yet not have any back-up available for rescue.

The MRI study team believes that a viable solution to this is issue, one that has been successful in many other volunteer fire departments and rescue squads, is the implementation of a duty crew system. Under the duty crew system, the department could be divided into 2 or 3 duty crews. Each duty crew would have their own separate alert tone and would function on some type of a rotational system with the other crews, perhaps 1 week on and either 1 or 2 weeks off. Only the “duty crew” would be dispatched initially to minor incidents often referred to as “still alarms”. The advantage of the duty crew system is two-fold. It preserves the active, primary response role of what is a relatively strong volunteer force while simultaneously reducing the constant need for personnel to respond to all incidents.

At the time of this study, the Manchester Fire department does not respond at all to EMS incidents. At the same time, the rescue squad is struggling to continue to provide credible service within the community. Continued decline in the rescue squad operations will result in a very large gap in the public safety service that is presently being provided. Although perhaps not widely popular within the fire department membership, with a total of 844 EMS calls in Manchester there is an opportunity for the fire department to step in to assist with providing the necessary service particularly for

² The Occupational Safety and Health Administration (OSHA) Respiratory Protection Standard – CFR 1910.134, contains a provision known as the “Two In – Two Out” rule. In brief, this regulation specifies that whenever firefighters operate in an environment/atmosphere that is “immediately dangerous to life and health” (IDLH), whenever two (2) members enter the IDLH area together/as a team, they must maintain visual or voice communication with two (2) additional firefighters who must remain outside of the IDLH atmosphere prepared to render immediate emergency assistance to those inside.

life threat types of medical emergencies. The fire department should consider training a number of firefighters who may be interested up to at least the first responder level so they can ensure, if not enhance, the continuation of the service being delivered. In conjunction with the use of emergency medical dispatch (EMD) to filter and prioritize EMS calls by level of severity the fire department could be utilized to assist with “D” and “E” level (most severe life threats) emergencies bringing their long tradition of service to the community to a new level.

The Manchester Fire Department does have a number of Standard Operating Guidelines (SOGs). However, it does not appear that these have been reviewed or updated in a number of years. Review of the department’s SOGs is something that the chief and department officers should do on an annual basis. Maintaining an up to date SOG manual helps to ensure that all personnel are on the same page which results in more consistent, effective, and efficient operations which in turn leads to improved safety for all firefighters. The MRI study team was informed that the fire department members have been meeting on a regular basis to revise and update their SOG manual. They should be commended for this undertaking and encouraged to continue it.

The Manchester Fire Department trains two times each month on Monday evenings. Training sessions generally last two hours. A significant percentage of department members participate in this training. Generally, one of the training sessions is dedicated to the fire operations, and the second training session focuses on rescue topics. In 2013, the department logged a total of 1702 staff hours of training. This equates to each member of the department participating in 49 hours of training during the year. National standards require 24 hours of structural firefighting training per year. Fire department personnel must also complete training on topics such as respiratory protection and blood borne pathogens/exposure control. Other types of training include vehicle extrication, hazardous materials response, emergency vehicle operations, operation of equipment and officer development.

At the time of this assessment the department roster listed 11 personnel certified as Firefighter I and an additional 5 certified to the Firefighter II level. All new members of the department are required to complete Firefighter I training within a reasonable prescribed period of time. Obtaining basic firefighting certifications is not able to be done by in house personnel but needs to be coordinated with the Vermont Fire Academy. Getting additional personnel certified to both the Firefighter I and Firefighter II levels should be a top priority for the department.

When compared to many other fire departments Manchester has an average to above average amount of training. In talking with some members of the department, it was clear to the MRI study team that many wish to expand the training program. However,

some members also expressed frustration over what they perceive as a lack of input from the membership into the training topics selected. It is our recommendation that an excellent, and realistic, goal for the delivery of an exceptional training program would be to provide 72 hours of training per member per year. Given the nature of a volunteer organization, this should not be forced but offered. Personnel input on the training program should also be solicited and utilized. The department does have a dedicated training officer and he is working to update various aspects of training for the department.

One fact regarding the Manchester Fire Department's training that the MRI study team found a bit troubling is that the town has been allocating \$1,500.00 per year in the budget for firefighter training. Yet in FY 2013, the department only used \$165.00 of that funding and used none of it in FY 2014. As a result, that appropriation has been reduced to \$1,000.00 in FY 2016. The department is encouraged to take advantage of the many outstanding training programs that are available to firefighters at a reasonable cost including Vermont weekend at the National Fire Academy (August 21-23, 2015).

For Fiscal Year 2015, the fire department's budget totals \$85,600.00, an increase of \$12,750.00 (17.5%) over FY 14. The budget includes \$47,700.00 for operations, \$7,700.00 for administration, and \$30,200.00 for firefighter stipends which is distributed to firefighters and officers based upon the number of emergency calls they respond to. The most significant budgetary increases were in the areas of equipment/vehicles maintenance and repairs (\$5,000.00), diesel fuel (\$750.00) and the firefighter stipend (\$7,700.00). Line item decreases occurred for gas (\$200.00) and miscellaneous (\$500.00).

The Town of Manchester also allocates \$75,000.00 per year into a sinking fund for fire department equipment. This appropriation was not included in the fire department budget information (or included in the chart below). In addition, the town provides a number of in kind services to the fire department as a unit of town government. These services are funded through general line items in the overall town budget, as they are applicable to all town departments. However, if they were allocated proportionally, they would increase the fire department budget significantly. These services include:

- Building maintenance and cleaning, grass mowing, landscaping and snow plowing
- Building utilities (heat, electric, water)
- Insurance (liability, worker's comp., building)
- Payroll taxes
- Telephone and internet services

- Administrative overhead (finance director, town manager, etc.) and town financial audit costs
- Use of photocopier and other office equipment

MANCHESTER FIRE DEPARTMENT BUDGET – FY 2015

LINE ITEM	AMOUNT BUDGETED
Training Firefighters	\$ 1,500.00
Supplies-Fire Prevention	\$ 1,000.00
Vehicle/Equipment Maintenance /Repairs	\$20,000.00
Fuel- Gas	\$ 200.00
Fuel Diesel	\$ 4,000.00
Communications-Acquisitions / Repairs	\$ 3,000.00
Miscellaneous	\$ 1,000.00
Hazardous Waste Supplies	\$ 1,000.00
Equipment Acquisition	\$16,000.00
Administration	\$ 7,700.00
Firefighter Stipend	\$30,200.00
TOTAL FIRE BUDGET	\$85,600.00

Source: Manchester Fire Department presentation

The Town of Manchester also has a six (6) year capital plan. At the time of this study, there were no new fire apparatus in the plan.

In addition to the funding provided to the fire department through Manchester’s municipal budget, the fire department reports that they also receive support in the form of donations and various fundraising activities. Recent acquisitions by the department utilizing these funds were reported to total more than \$40,000 and include:



- Rain gear
- Hose reel
- Fire hose
- Thermal imaging cameras
- W-tool
- Smoke ejector
- Radio headsets
- Ladder belts
- Technical rescue rope and gear
- Station needs for future fundraising events

These donations reflect that there is a high level of satisfaction and respect for the department present within the community that it serves.

RECOMMENDATIONS

The MRI study team makes the following recommendation regarding the Manchester Fire Department:

Recommendation I-1-1: The officer/administration stipend line item should be incrementally increased to provide additional compensation to the personnel who work hard to improve the department's operations. Suggested personnel to receive stipends would include all the captains and lieutenants as well as the training and safety officers. Consideration should also be given to other potential incentive programs that could be utilized to recruit new members and retain both them and the existing personnel.

Recommendation I-1-2: The Town of Manchester should install a vehicle exhaust extraction system in all the apparatus/vehicle bays (both fire and rescue) in the public safety building. Consideration should be given to applying for an Assistance to Firefighters (AFG) grant to obtain funding.

Recommendation I-1-3: The Manchester Fire Department should ensure that all apparatus is equipped with one (1) self-contained breathing apparatus (SCBA) and one (1) spare cylinder for each riding position including the driver.

Recommendation I-1-4: The Manchester Fire Department should revise its response protocols to allow Rescue 10 to only respond with 2 personnel both in the cab area. Use of the rescue box area for personnel to ride should be discontinued, as this area does not meet current NFPA standards for a personnel riding compartment.

Recommendation I-1-5: Within the next 3 years, the Town of Manchester should provide the fire chief with an SUV type command vehicle to allow him to more effectively manage and coordinate emergency incidents, as well as, for conducting his many administrative and management duties.

Recommendation I-1-6: The Manchester Fire Department and the dispatch center should implement a cell phone based dispatch and notification system where by all personnel can receive emergency dispatches and other important notifications via text message on their cell phones.

Recommendation I-1-7: The Town of Manchester should form a police, fire, rescue, dispatch working group comprised of a senior officer of each organization for the purpose of discussing dispatch related issues. The group should meet monthly. Any issues should be brought forward in writing and solutions/resolutions should be distributed to all parties concerned.

Recommendation I-1-8: The Manchester Police and Fire Departments should respond as a team to emergency incidents within the town. The fire department should be dispatched immediately upon receipt of any 9-1-1 call or alarm that would warrant their response (caller reports a fire or potential fire, smell of smoke, smoke in the building, etc.). The dispatch of the fire department should be driven by policy and never delayed for convenience or by dispatcher discretion. Delays in dispatching while the police investigate is unacceptable and contrary to accepted best practices in the emergency services.

Recommendation I-1-9: In order to improve overall intra-departmental communications, the Town of Manchester should provide all members of the Manchester Fire Department with a town e-mail account.

Recommendation I-1-10: The Manchester Fire Department should implement a duty crew system whereby the department will be divided into 2 or 3 duty crews. Utilizing their own separate dispatch tone the duty crew would be dispatched to minor incidents reducing the need for the entire department to respond.

Recommendation I-1-11: The Manchester Fire Department should implement agreements and procedures with surrounding fire departments to utilize automatic aid for the response of additional resources, both personnel and apparatus, to any reported structure fire.

Recommendation I-1-12: The Manchester Fire Department should consider training any of their existing firefighters who are interested to at least the first responded level so the department can provide additional assistance and support to the rescue squad when needed particularly on life threat type medical emergencies.

Recommendation I-1-13: The Manchester dispatch center (or the town's authorized PSAP) should utilize EMD to sort, filter, and prioritize EMS calls by their severity.

Recommendation I-1-14: The Manchester Fire Department should be toned out to assist EMS on severe life threat "D" and "E" level medical emergencies.

Recommendation I-1-15: The Manchester Fire Department and Manchester dispatch center should implement use of a separate fire "EMS" tone to be utilized for dispatching EMS incidents. In that way, only interested personnel will be alerted for response.

Recommendation I-1-16: The Town of Manchester should consider having the fire department assume EMS operations from the rescue squad. It is our recommendation that an EMS Division be created within the department headed by an EMS deputy chief

who would be responsible for all EMS operations and would report directly to the fire chief.

Recommendation I-1-17: The chief and officers of the Manchester Fire Department should perform an **annual review** of the department's Standard Operating Guidelines and update them as needed. There should be a process in place for any member of the department to suggest the need for a new SOG that will enhance the safe and efficient operation of the department.

Recommendation I-1-18: The Manchester Fire Department should work closely with the Vermont Fire Academy and make it a high priority to significantly increase the number of department personnel who are certified to at least the Firefighter I level.

Recommendation I-1-19: All new members of the department should be required to obtain Firefighter I and II certification within 24 months of their appointment to the department.

Recommendation I-1-20: Additional personnel should be encouraged to seek training at the Firefighter II and higher levels. Consideration should be given to providing existing personnel with a financial incentive or stipend, perhaps \$500.00, upon successful completion of Firefighter II.

Recommendation I-1-21: The department is encouraged to expand its current training program utilizing input from all department members and stakeholders to determine pertinent programs and topics. The training officer should meet frequently with the department's officers to formulate a long range training program to meet the evolving needs of the department.

Recommendation I-1-22: The training officer and training committee should develop an annual schedule of training that increases the monthly training schedule from two drill per month to three. Consideration should be given to providing some type of incentive program for personnel to participate in additional monthly training.

Recommendation I-1-23: The Town of Manchester should increase the funding in the fire department training account to allow for the department to send additional firefighters for training/certifications and/or provide training programs in house. The Manchester Fire Department is encouraged to take advantage of the many outstanding training programs that are available to firefighters at a reasonable cost by sending personnel to as many as possible. These opportunities include Vermont weekend at the National Fire Academy (August 21-23, 2015).

2 - DORSET AND EAST DORSET FIRE DISTRICTS

The Town of Dorset has a 2014 population of 2,036 residents. The population does increase somewhat at certain times of the year with influxes of people utilizing vacation homes in the area. Fire protection within the town is provided by two separate autonomous fire/water districts that operate totally independently of the town, and, each other. However, both departments are dispatched simultaneously, and respond, to all incidents that occur within the town.

Each of the districts assesses different fire tax rates. A 2010 study by the Vermont League of Cities and Towns showed that the two rates were greatly different with the East Dorset Fire District fire tax rate being .08 while the Dorset Fire District fire tax rate was .0314³. As a water district, the East Dorset Fire District has made significant improvements in their water distribution system infrastructure, which has allowed for an adequate delivery system for needed fire flow. Conversely, the Dorset Fire District (also a water district) has recently been required by the State of Vermont to discontinue the use of their fire hydrant system because the water mains are undersized at only 4". In addition, most of the discharge outlets on the hydrants are unusable leaving only a single 2.5" outlet available for use.

Neither fire district responds to medical emergencies within the town on a regular basis. In 2013, the Manchester Rescue Squad responded to 204 incidents in the town. Of those, Dorset responded to 2 and East Dorset responded to 4. Coupled with the fact that the town does not have its own police department and the state police only patrol part-time Dorset lacks any initial or immediate EMS or rescue response to even the most severe medical emergencies. This places the citizens of the town in the unenviable position of waiting for an ambulance to arrive from Manchester without any type of emergency intervention. It appears that this practice is driven at least in part by the private interests of the rescue squad.

Dorset Fire District

Dorset is the older of the two entities that provide fire protection to the town. The Dorset Volunteer Fire Department was originally organized in 1912. The fire department is overseen by the Dorset Prudential Committee and is currently led by Chief Alan Casey. The committee also oversees the Dorset water system. It receives the

³ All of the tax rates are indicated in cents per one hundred dollars of assessed value. East Dorset's rate is eight (8) cents per \$100 of assessed value. Dorset's rate was 3.14 cents per \$100 and has increased to 4.2 cents per hundred.

majority of its funding from a fire district tax that is assessed on the approximately 1000 households in the department's/district's first due response area. In 2013, the department responded to a total 105 emergency incidents. This equates to a workload of 2.0 responses per week, or .29 calls per day, and should be well within the capability of a functional volunteer fire department.

At the time of this assessment, membership in the Dorset Fire Department is listed at just 18 regular members and 4 junior firefighters. Accurate statistics on how many or what percentage, of these members are truly active and regularly respond to emergency incidents were not available. However, out of the 18 members only 7 are certified at either the Firefighter I and/or Firefighter II. Also of concern to the study team is that the department has a total of just 86 years of experience among all members including several veteran members who have from 9 to 26 years of service.

As previously noted above with Manchester, although this is not an unusual situation in volunteer fire departments, particularly those serving small communities where the fire company is an important part of family tradition and the community fabric, it can create a false sense of security regarding the number of personnel who are actually trained and experienced to protect the community, and, by extension, the level of service actually available. In addition, personnel who rarely respond but may show up for "the big one" can create operational, training, and liability issues for the department and the town. The dearth of training and experience seems to be particularly acute in Dorset.

The current organizational structure of the department may consist of:

- 1 - Fire Chief
- 1 - 1st Assistant Fire Chief
- 1 - 2nd Assistant Fire Chief,
- 3 - Captains
- 12 – Firefighters
- 4 – Junior Firefighters

Complicating the department's staffing and response issues it was reported to the MRI study team that a number of the department's already limited membership live outside of the district and even the Town of Dorset. There are also several firefighters who live in the Dorset area but choose to bypass Dorset and travel over the mountain to respond with East Dorset. This has had the effect of creating slow response times resulting in East Dorset being first to arrive on the emergency scene for a number of incidents. It was also reported to the study team that on at least a few occasions junior firefighters were driving and operating the fire apparatus which has the potential to create a wide

range of safety, operational and liability issues for the department, the district, and the town.

The current fire station was built in 1972 and for the most part is adequate for the needs of the department and its mission. However, the MRI study team did note the station lacks any type of automatic fire alarm system that would detect a fire in the station, particularly when it is not occupied. It also lacks carbon monoxide detectors and a vehicle exhaust emissions removal system.



Dorset Fire District Station

The Dorset Fire Department operates a total of 5 motorized apparatus. The current fleet consists of 3 pumpers, 1 brush truck, and 1 off road vehicle. This apparatus set is far beyond what would be needed for a department the size of Dorset particularly when one considers the department's extremely limited membership and the presence of East Dorset protecting the other side of the town. All of the major apparatus generally appeared to be in good to excellent condition. The brush truck is 41 years old and while still in fair condition has probably exceeded its useful service life. The department does not have any command/staff vehicles for use by the chief officers or other personnel.

The age of the apparatus currently in service ranges from 41 years old for the brush truck to 3 years old for the newest pumper, Engine 513. The three major pieces of

apparatus all appear to meet the national standards commensurate with their age, and are in good to excellent condition. The apparatus capabilities such as pump sizes are much larger than what would be required in a small community such as Dorset. In fact, almost all of the apparatus and equipment appear to be configured well in excess of what is reasonably necessary to adequately protect the town.

The following information summarizes the Dorset Fire Department apparatus fleet:

- **ETA 513** the department's newest apparatus is a 2012 KME equipped with a 2000 GPM fire pump, 1000 gallon water tank, 55 gallon foam tank and foam system and 1800' of 5" hose. This unit appears to meet NFPA and ISOI standards for equipment. However, it is configured significantly in excess of what is necessary. This vehicle is in excellent condition.
- **ETA 512** is a 2005 KME equipped with a 2250 GPM fire pump, 1800 gallon water tank, 50 gallon foam tank and foam system, and 2000' of 5" hose. This unit appears to meet NFPA and ISOI standards for equipment. This vehicle is configured far in excess of anything that is necessary to provide adequate protection to the Town of Dorset. This vehicle is in very good condition.
- **ETA 511** is a 1996 KME equipped with a 1750 GPM fire pump, 1000 gallon water tank, and 2000' of 4" hose. This unit appears to meet NFPA and ISOI standards for equipment. This vehicle is configured well in excess of any reasonable fire protection need in the town. This vehicle is in very good condition.
- **Brush Truck 515** is a 1974 Chevrolet with a 250 GPM fire pump and 250 gallon water tank. It is in fair condition but at 41 years old has probably exceeded its useful service life.
- The department has a 2007 Polaris Ranger that is equipped for back county rescue and transport by trailer.

Over the past 3 years, the Dorset Fire Department has responded to between 91 and 105 calls annually. Incidents were almost statistically identical in 2011 and 2013 with 103 and 105 respectively. They dipped slightly in 2012 to 91. The breakdown is as follows:

DORSET FIRE DEPARTMENT RESPONSES 2011 - 2013

INCIDENT TYPE	2011	2012	2013
Accident with Injuries	8	9	3
Brush Fires	2	2	9
Burnt Food	4	5	5
Chimney Fires	2	0	2
Carbon Monoxide Alarm	5	4	2
Danby – Mutual Aid	0	0	1
East Dorset – Automatic Aid	25	26	26
EMS Assist	2	1	2
Fire Alarm Activation	10	15	20
Good Intent Call	3	3	1
Granville, NY – Mutual Aid	0	1	0
Haz. Mat. Incident	6	3	0
Manchester – Mutual Aid	3	3	1
Pawlet – Mutual Aid	2	0	5
Rupert – Mutual Aid	3	1	3
Search and Rescue	3	1	1
Severe Weather Standby	1	0	0
Smoke Condition	0	2	11
Standby in Station	5	0	0
Stove Fire	1	0	0
Structure Fire	4	1	0
Transformer Fire	0	1	0
Trees Across Road	2	6	1
Trees on Wires	3	4	5
Unattended Brush Fire	0	2	2
Vehicle Fires	0	1	0
Water Emergency	4	0	2
Wells	0	1	0
West Pawlet – Mutual Aid	1	0	0
Wires Down	4	0	3
TOTAL	103	91	105

Source: Dorset Fire District #1 via Town of Dorset Annual Reports



The Dorset Fire Department did not provide the MRI study team with any additional information regarding incident response times, NFPA 1720⁴ compliance, etc. However, based upon the fact that it was reported that East Dorset arrived first on the scene of incidents in the Dorset area a number of times after travelling over the mountain it could reasonably be concluded that response times are not acceptable or in keeping with recommended practices.

The Dorset Fire Department is presently being dispatch by the Washington County Regional Dispatch Center located in New York. This service is provided to the town for the very reasonable annual fee of \$7,000.00. While it appears that the town is happy with the service that it receives, the MRI study team does have some concerns about the dispatch center being located in another state and some of the potential complications that could arise from this arrangement such as different state laws, regulations, etc.

As was previously noted briefly, despite also being a water district, the fire hydrants in the Dorset Fire/Water District have been shut down by the State of Vermont as the water mains supplying them are severely undersize and inadequate at just 4" in diameter. These hydrants have been welded closed with only a single 2.5" discharge accessible. This situation has certainly had a negative impact on the fire protection system in Dorset and will, out of necessity, mandate significant changes in the way the department responds to and operates at structure fires. It will bring additional operational challenges to a department that is already facing staffing and training difficulties. This condition will also ultimately affect the district's and/or town's ISO rating which may possibly end up being raised to either a 9 or even a 10 (ISO's two lowest ratings resulting in higher fire insurance premiums for property owners). In short, this situation is totally unacceptable and should never have been allowed to reach the state of unserviceability that it has.

The Dorset Fire Department trains just one time each month (in addition to 6 meetings) on Tuesday evenings. At the time of this assessment the department did not have a designated (or certified) training officer and it appears that there is not a set training topic planned in advance or any type of formal lesson plan or objective utilized. With the department having only 7 certified firefighters and 12 members lacking even the most basic training/certification, coupled with limited overall experience within its

⁴ NFPA 1720, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments*, 2010 edition (National Fire Protection Association, Quincy, MA), outlines organization and deployment of operations by volunteer/call and primarily (85%) volunteer/call fire departments.

personnel, it is apparent to the study team that providing training in basic firefighting skills needs to be the priority focus of a training program that needs to be significantly enhanced.

Obtaining basic firefighting certifications is not able to be done by in-house personnel but needs to be coordinated with the Vermont Fire Academy. Getting additional personnel certified should be a top priority for the department and could possibly be done in a collaborative endeavor with neighboring fire departments. The department is relatively young and inexperienced. Providing high quality training is essential to helping these personnel develop critically important firefighting and safety skills

The MRI study team also feels very strongly that the role of the junior firefighters needs to be clearly established to assure they are only performing tasks wherein they are not placed into a dangerous environment of any type, or, are expected to drive and/or operate apparatus. The department must also ensure that they are properly trained to safely complete any and all tasks they are expected to perform as part of their duties.

The Dorset Fire District budget for 2013-2014 was \$ 229,036.00. This was an increase of \$24,606.00 (12%) from 2012-2013 and \$42,706.00 from 2011-2012 (22.9%). These are significant increases in a budget for a district with limited staffing resources that only protects 1,000 homes in part of a town of just over 2,000 residents.

DORSET FIRE DISTRICT THREE YEAR REVENUE

REVENUE SOURCE	2011-2012	2012-2013	2013-2014
Fire Tax	\$184,630.00	\$201,230.00	\$227,636.00
Fire Tax - Delinquent			
Interest Income	\$ 500.00	\$ 2,000.00	\$ 200.00
Town Appropriation	\$ 1,200.00	\$ 1,200.00	\$ 1,200.00
TOTAL	\$186,330.00	\$204,430.00	\$229,036.00

Source: Dorset Fire District #1 via Town of Dorset Annual Reports

At a time when most government entities are trying to reduce budgets or minimize increases, the Dorset Fire District budget has increased \$47,706.00 (22.9%) in the past 3 years. It increased 13.8% from 2011-2012 to 2012-2013. It increased another 12% from 2012-2013 to 2013-2014.



DORSET FIRE DISTRICT THREE YEAR BUDGET

LINE ITEM	2011-2012	2012-2013	2013-2014
Clerk Fees	\$ 9,480.00	\$ 9,480.00	\$ 9,480.00
Dues and Subscriptions	\$ 700.00	\$ 700.00	\$ 1,050.00
Education and Retention Plan	\$ 25,000.00	\$ 25,000.00	\$ 20,000.00
Electric	\$ 3,000.00	\$ 3,300.00	\$ 3,000.00
Fireman's Dinner	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00
Fireman's Training	\$ 3,500.00	\$ 3,500.00	\$ 4,000.00
Gas/Diesel Fuel	\$ 3,000.00	\$ 4,500.00	\$ 4,500.00
Generator			\$ 36,000.00
Heating Oil	\$ 3,500.00	\$ 4,500.00	\$ 4,500.00
Insurance	\$ 15,000.00	\$ 23,000.00	\$ 16,000.00
Maintenance - Equipment	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00
Maintenance - Firehouse	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00
Maintenance - Vehicles	\$ 15,000.00	\$ 13,000.00	\$ 13,000.00
New Equipment	\$ 30,000.00	\$ 40,000.00	\$ 40,000.00
New Truck Payment	\$ 37,550.00	\$ 37,550.00	\$ 36,106.00
Postage/Printing	\$ 1,400.00	\$ 1,400.00	\$ 1,400.00
Professional and Clerk Fees	\$ 5,000.00	\$ 2,000.00	\$ 2,000.00
Sinking Fund	\$ 16,000.00	\$ 16,000.00	\$ 20,000.00
Supplies	\$ 500.00	\$ 500.00	\$ 500.00
Telephone	\$ 3,200.00	\$ 3,000.00	\$ 3,000.00
TOTAL	\$186,330.00	\$204,430.00	\$229,036.00

Source: Dorset Fire District #1 via Town of Dorset Annual Reports

Notable aspects of the budget analysis regarding specific line items include:

- Education and Retention Plan decreased \$5,000.00 (20%) from 2012/2013 to 2013/2014.
- Gas/Diesel Fuel increased \$1,500.00 (50%) from 2011/2012 to 2012/2013 and remained the same in 2013/2014.
- There is a one-time purchase of a generator (\$36,000.00) in 2013/2014.
- Heating oil increased \$1,000.00 (28%) from 2011/2012 to 2012/2013 and remained the same for 2013/2014.

- Insurance increased by \$8,000.00 (53%) from \$15,000.00 in 2011/2012 to \$23,000.00 in 2012/2013 before decreasing by \$7,000.00 (30.4%) to \$16,000.00 in 2013/2014.
- New Equipment increased by \$10,000.00 (33.3%) from \$30,000.00 to \$40,000.00 from 2011/2012 to 2012/2013 and remained the same for 2013/2014.
- Professional and Clerk Fees decreased by \$3,000.00 (60%) from \$5,000.00 in 2011/2012 to 2012/2013 and remained the same in 2013/2014.
- The Sinking Fund was increased by \$4,000.00 (25%) from \$16,000.00 in 2012/2013 to \$20,000.00 in 2013/2014.

East Dorset Fire District # 1

East Dorset is the newer of the two fire districts that provide fire protection to the town. The East Dorset Fire Department was first established in 1943 to cover the emergency response and water needs of the East Dorset Village and surrounding areas. The fire department is commanded by Chief John Niles and overseen by the East Dorset Prudential Committee. The committee also oversees the East Dorset water system. It receives the majority of its funding from a fire district tax that is assessed on the property owners in the department's/district's first due response area with a current resident population of about 1,400 people. In 2013, the department responded to a total of 100 emergency incidents. This equates to a workload of 1.9 responses per week, or .27 calls per day, and should be well within the capability of a functional volunteer fire department. Notably the East Dorset Fire Department responded to Dorset 57 times during the year and in many cases was the first arriving fire company to emergencies in that part of the town.

Overall, the East Dorset Fire Department appears to be well organized and well trained as an emergency response organization. The district/department has an ISO rating of 5/6. Over the past several years, the water district has made a substantial investment in upgrading its water distribution system which has significantly increased the available fire flow of the district. The committee should be commended for undertaking this expensive but very important public safety initiative.

At the time of this assessment, membership in the East Dorset Fire Department is comprised of 19 regular members and 1 junior firefighter. Of the 19 regular members

16 (84.2%) are trained and certified to the in Firefighter I and II levels. A number of members also possess specialty training in disciplines such as wilderness and cold water rescue operations. Members of the department have a cumulative total of 225 years of experience including several veterans with between 15 and 34 years of service to the community. While detailed statistics were not available to support this, it was reported to the MRI study team that the department's membership is very active and they are eager to respond when dispatched for emergencies. It was reported that most members of the department are active responders, have a good response average, and that the department usually gets an adequate turn out of responding members whenever they are dispatched.

The current organizational structure of the department consists of:

- 1 - Fire Chief
- 1 - 1st Assistant Fire Chief
- 1 - 2nd Assistant Fire Chief,
- 4 - Captains
- 12 – Firefighters
- 1 – Junior Firefighter

The current fire station was built in 1952 and is very adequate for the needs of the department and its mission. However, the MRI study team did note the station lacks any type of automatic fire alarm system that would detect a fire in the station, particularly when it is not occupied. It also lacks carbon monoxide detectors and a vehicle exhaust emissions removal system. As time and finances permit, the department does try to renovate and update the station. These efforts should be encouraged and supported.

The East Dorset Fire Department operates a total of 8 motorized vehicles. The current fleet consists of 2 pumpers, 1 rescue/pumper, 1 brush truck, 1 utility truck, and 3 off road vehicles (2 ATVs and 1 snowmobile). They also have 3 special operations trailers. All of the major apparatus generally appeared to be in good to excellent condition. The department does not have any command/staff vehicles for use by the chief officers or other personnel. All apparatus is appropriately configured for the reasonably expected fire protection needs of the town.

The age of the apparatus currently in service ranges from 16 years old for the rescue/pumper to 5 years old for the newest pumper, Engine 591. The three major pieces of apparatus all appear to be well cared for, meet the national standards commensurate with their age, and are in good to excellent condition. All department apparatus and equipment is inspected on a monthly basis. Any problems that are

discovered are reported to be promptly addressed and/or corrected. One area of deficiency is that most of the apparatus do not carry a sufficient number of self-contained breathing apparatus (SCBA). Current NFPA standards require 1 SCBA and 1 spare cylinder for each riding position on the apparatus including the driver.

The following information summarizes the East Dorset Fire Department apparatus fleet:

- **ENGINE ETA 591** the department's newest apparatus is a 2010 E-One equipped with a 1250 GPM fire pump, 1000 gallon water tank, 35 gallon foam tank and compressed air foam system and 2,000' of 4" hose. Except as noted above for SCBA this unit appears to meet NFPA and ISOI standards for equipment. This vehicle is in excellent condition.
- **ENGINE ETA 592** is a 2001 E-One equipped with a 1250 GPM fire pump, 1000 gallon water tank, 35 gallon foam tank and foam system, and 2,000' of 4" hose. Except as noted above for SCBA this unit appears to meet NFPA and ISOI standards for equipment. This vehicle is in good condition.
- **RESCUE 595** is a 1999 HME rescue pumper equipped with a 1000 GPM fire pump, 500 gallon water tank, 50 gallon foam tank, and 2,000' of 4" hose. This truck responds first to all car fires, motor vehicle accidents, and rescue calls. As it is a rescue pumper, it carries a large complement of specialized rescue tools and equipment as well as the normal equipment required for a standard fire pumper. It is also equipped with a large generator and a four bottle, 6,000 PSI air cascade system for refilling self-contained breathing apparatus on the emergency scene. Except as noted above for SCBA this unit appears to meet NFPA and ISOI standards for equipment. This truck is in good condition.
- **Brush 594** is a 2000 Ford F 350 brush truck equipped with a slide on unit outfitted with an 18 HP motor powering a 500 GPM fire pump with a foam pro system and a 270 gallon water tank. It has an assortment of equipment necessary for fighting brush and wildland fires. This truck is in good condition.
- **Unity Truck 593** is a 2005 Chevrolet 4x4, 4 door crew cab pick-up truck which serves as a general utility vehicle. This truck is used to

tow all of the department's special operations trailers. This truck is in good condition.

East Dorset also has three trailers that are set up with specialized rescue operations equipment.

- **Snowmobile Trailer** is a 2006 Mission trailer that carries a Yamaha 540 Snowmobile for off road winter rescue operations. It also carries a rescue sled and other winter rescue and EMS equipment.
- **ATV Trailer** is a 2014 Mission trailer, which carries two Polaris 6x6 Wheelers set up for woods rescues and forest fire attack. It also carries equipment necessary to perform these tasks.
- **Ice Water Rescue Trailer** is a 2014 Mission 6' x 12' trailer, with an assortment of specialized tools and equipment necessary to perform water and ice rescues.

Over the past 3 years, the East Dorset Fire Department has responded to between 105 and 121 calls annually. Interestingly their incidents have been decreasing each of these years with 121 in 2011, 107 in 2012 and 105 in 2013. A high percentage of their responses are mutual aid responses which probably illustrates that they are well regarded in area fire service and can be counted upon when needed. The breakdown is as follows:

EAST DORSET FIRE DEPARTMENT RESPONSES 2011 - 2013

INCIDENT TYPE	2011	2012	2013
Accident with Injuries	2	12	9
Animal Rescue	1	0	0
Arlington – Mutual Aid	0	1	0
Brush Fires	0	2	1
Chimney Fires	2	0	1
Carbon Monoxide Alarm	3	0	7
Clarendon – Mutual Aid	1	1	0
Control Burn	0	1	0
Danby/Mount Tabor – Mutual Aid	17	14	13
Dorset – Automatic Aid	49	52	57
Electrical Fire	0	2	0
EMS Assist	0	0	4



INCIDENT TYPE	2011	2012	2013
Fire Alarm Activation	9	4	5
Good Intent Call	2	0	0
Haz. Mat. Incident	0	1	0
Lawn Mower Fires	1	0	0
Manchester – Mutual Aid	12	7	2
Pawlet – Mutual Aid	1	0	0
Severe Weather Standby	14	0	0
Smell of Propane	0	1	2
Smoke Condition	1	0	0
Structure Fire	2	2	0
Vehicle Fires	0	2	0
Wallingford – Mutual Aid	1	0	0
Wires Down	2	1	0
Wood/Rescue	0	2	4
TOTAL	121	107	105

Source: East Dorset Fire Department #1 via Town of Dorset Annual Reports

The East Dorset Fire Department did not provide the MRI study team with any additional information regarding incident response times, NFPA 1720⁵ compliance, etc. However, the department does appear to be able to reliably respond with sufficient personnel and, within a timely manner. It was reported to the team that despite the fact that they need to travel over the mountain to get to Dorset that they frequently are the first arriving fire unit to incidents in that part of the town.

As was previously noted with Dorset, the East Dorset Fire Department is also dispatched by the Washington County Regional Dispatch Center located in New York. This service is provided to the town for the very reasonable annual fee of \$7,000.00. While it appears that the town is happy with the service that they receive, the MRI study team does have some concerns about the dispatch center being located in another state and some of the potential complications that could arise from this arrangement such as different state laws, regulations, etc.

Training seems to be an important component of the overall operations of the East Dorset Fire Department. The department meets every Tuesday. Scheduled drill and

⁵ NFPA 1720, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments*, 2010 edition (National Fire Protection Association, Quincy, MA), outlines organization and deployment of operations by volunteer/call and primarily (85%) volunteer/call fire departments.

training sessions are held on the first three weeks while all apparatus and equipment is inspected and tested on the fourth Tuesday. All of the department's 19 firefighters are certified at the Firefighter I level with a number also possessing Firefighter II certification. It is one of the department's goals to get the remainder of the department certified at the Firefighter II level. This training program is fairly intense and complex and not something that could be accomplished in house. It will need to be coordinated with the Vermont Fire Academy.

A number of members of the department are certified as ice water rescue technicians and many members have training in wilderness search and rescue. With large tracts of the Green Mountain National Forest in the vicinity of the town, the department is frequently requested to assist on mutual aid for their rescue equipment and skills. East Dorset also coordinates and hosts training opportunities for neighboring departments such as SCBA use and vehicle extrication operations.

The East Dorset Fire Department 2013/2014 budget was \$134,567.00. It has remained relatively stable over the three year period analyzed. The 2011/2012 budget was \$133,067.00. In 2012/2013 it decreased by \$1,000.00 (.0075%) to \$132,067.00. From 2012/2013 to 2013/2014, it increased just \$2,500.00 (1.9%) to \$134,567.00. The following is a breakdown of the budget:

EAST DORSET FIRE DISTRICT THREE YEAR BUDGET

LINE ITEM	2011-2012	2012-2013	2013-2014
FIREHOUSE			
Maintenance and Repairs	\$ 10,000.00	\$ 5,000.00	\$ 7,500.00
Special Projects	\$ -0-	\$ 10,000.00	\$ -0-
Utilities	\$ 5,600.00	\$ 5,600.00	\$ 5,600.00
Supplies	\$ 250.00	\$ 250.00	\$ 250.00
TOTAL	\$ 15,850.00	\$ 20,850.00	\$ 13,350.00
APPARATUS			
Maintenance and Repairs	\$ 6,000.00	\$ 10,000.00	\$ 10,000.00
New Equipment	\$ 12,000.00	\$ 12,000.00	\$ 15,000.00
Fuel	\$ 3,000.00	\$ 3,000.00	\$ 5,000.00
Radios	\$ 2,000.00	\$ 3,000.00	\$ 3,000.00
Truck Sinking Fund	\$ 18,000.00	\$ 10,000.00	\$ 10,000.00
Truck Payment	\$ 35,017.00	\$ 35,017.00	\$ 35,017.00
TOTAL	\$ 76,017.00	\$ 73,017.00	\$ 78,017.00
PERSONNEL			
Protective Clothing	\$ 7,000.00	\$ 4,500.00	\$ 7,000.00
Dues/Subscriptions/Training	\$ 750.00	\$ 1,500.00	\$ 1,500.00
Meals	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00
FEC	\$ 8,000.00	\$ 8,500.00	\$ 8,500.00
TOTAL	\$ 17,250.00	\$ 16,000.00	\$ 18,500.00
ADMINISTRATION			
Professional Fees	\$ 3,300.00	\$ 3,300.00	\$ 3,800.00
Office Supplies	\$ 550.00	\$ 300.00	\$ 300.00
Advertising	\$ 100.00	\$ 100.00	\$ 100.00
Insurance	\$ 18,000.00	\$ 18,000.00	\$ 18,500.00
Fire Prevention	\$ 2,000.00	\$ 500.00	\$ 2,000.00
TOTAL	\$ 23,950.00	\$ 22,200.00	\$ 24,700.00
TOTAL BUDGET	\$133,067.00	\$132,067.00	\$134,567.00

Source: East Dorset Fire Department #1 via Town of Dorset Annual Reports

While it was noted that there were some significant differences between various line items in the budget from year to year most likely dictated by specific department needs and priorities for that particular year, East Dorset has done an excellent job of



maintaining an extremely stable budget over the past several years. They should be commended for this effort.

It should be noted that East Dorset did not provide the study team with any revenue breakdown regarding how their budget is funded. The MRI team was informed however, that East Dorset's primary source of revenue to fund their operations is also a fire district tax assessed on the property owners in their response area.

Overall Analysis of Town of Dorset Fire Services

Overall Dorset is poorly served by its current fire services based on the existence of two distinct and totally autonomous fire districts, the inequality of tax rates and cost, the lack of an adequately trained and experienced volunteer fire force in the Dorset area, a long standing cultural feud between the two districts, and, an abundance of fire apparatus and equipment that far exceeds the needs of the town. There should be no need to invest any capital resources in major apparatus purchases for the foreseeable future. In addition, despite the fact that it also serves as a Water District the State of Vermont has basically shut down the water system in the Dorset area due to serious inadequacies. Geographically the town is split by Green Peak Mountain and in consideration of that fact the presence of two deployment points, or stations, is appropriate. However, overall the fire services in the community present an operationally dysfunctional while simultaneously fiscally excessive situation.

Overall, the Town of Dorset as a whole spends significantly more for fire protection than virtually all of the comparable Vermont communities that were provided by the town to be utilized for our benchmarking. Although it may be reasonable to expect that Dorset's total budget between the two districts may be somewhat higher than communities with municipally operated departments due to expenses for a fire district that may not be totally reflected in the fire department line items of a municipal department, it is our opinion that the town's cumulative fire protection budget is still excessive. For example, Dorset's total fire protection budget as a town is 139% larger than Arlington's which serves a fire district or response area population 81% larger than Dorset⁶. The overall Town of Dorset fire budget (both districts) is 135% higher than the average. Put another way, it is more than 2.3 times the average budget of the other 6 comparable Vermont communities. In comparison with the 2 communities whose populations are closest to Dorset: Ludlow (2,000) and Wallingford (2,079), Dorset's budget is 152% and 182% higher respectively. The Town of Dorset also spends \$278,003.00 (324%) more on fire

⁶ At 2,317, the population of Arlington is only 14% larger than Dorset. However, the benchmarking survey that was completed by Arlington indicates that their fire district or response area has a total population of 3,678 which is 81% larger than Dorset.

protection than neighboring Manchester a community with twice the population. Interestingly, although the Dorset Fire District's overall budget is much higher than the East Dorset Fire District's, its overall tax rate is considerably lower.

Based upon the fiscal inequity between the fire districts, a referendum to create a single district fire protection rate for the entire town was defeated primarily due to opposition by voters in the Dorset Fire District. It has also been suggested that the fire districts should be audited. East Dorset was in full support. Dorset while not opposed, was more ambiguous and non-committal in their response.

FIRE BUDGET COMPARISON

COMMUNITY	CURRENT FIRE BUDGET
Arlington, VT	\$152,300.00
Ferrisburgh, VT	\$ 95,000.00
Ludlow, VT	\$144,000.00
Monkton, VT	\$ 55,000.00
Norwich, VT	\$355,707.00
Wallingford, VT	\$127,096.00
AVERAGE	\$154,850.50
Dorset Fire District	\$229,036.00*
East Dorset Fire District	\$134,567.00**
TOWN OF DORSET TOTAL	\$363,603.00

*Dorset Fire District fire tax rate = .0314.

**East Dorset Fire District fire tax rate = .08.

The MRI study team also believes that the Town of Dorset has an abundance of fire apparatus for a community its size. Our benchmarking analysis indicated that the town has much more apparatus than any of its comparable peer communities. This includes more than three (3) times as many pumpers as average and 62% more total vehicles not including off road vehicles. In addition, most notably in the Dorset Fire District, the apparatus is excessively configured and outfitted way beyond any reasonable expectation of need in the community or possibility that they will ever be utilized to capacity. Engine ETA 512 is especially noteworthy with a 2,250 gallon per minute pump and 1,800 gallons of water on a single rear axle apparatus. It does not appear that the real needs of the district and town were considered when purchasing and specifying this apparatus. It is important to note also that the Dorset Fire District has a very limited number of personnel and at the time of this assessment reportedly permitted junior firefighter to drive and operate this apparatus.



When compared to national averages a community the size of the Town of Dorset (population < 2,500) would typically have:

- **2 – 3 Pumpers**
 - Average is 2.5
 - 80.3% of communities with populations under 2,500 have either one (1) or two (2) pumpers
 - Only 0.4% have five (5) or more pumpers
- **3 – 4 “other” vehicles such as tankers, brush trucks, rescues, etc.**
 - Average is 3.8
- **1 - Station**
 - 86.3% have one (1) station
 - 10.7% have two (2) stations

FIRE APPARATUS COMPARISON

COMMUNITY	NUMBER OF PUMPERS	NUMBER OF TANKERS	NUMBER OF BRUSH UNITS	TOTAL VEHICLES OPERATED
Arlington, VT	3	1	1	7
Ferrisburgh, VT	1	1	1	4
Ludlow, VT	1	1	1	6
Monkton, VT	2	1	1	5
Norwich, VT	2	1	1	6
Wallingford, VT	Not Reported	Not Reported	Not Reported	Not Reported
AVERAGE	1.8	1	1	5.6
Dorset Fire District	3	0	1	4
East Dorset Fire District	3	0	1	5
TOWN OF DORSET TOTAL	6	0	2	9*

* Does not include any off road vehicles.

An inventory of the current and recommended apparatus set is detailed below. The town’s overall apparatus set is going to, by necessity, be somewhat larger than average due to the need for 2 deployment sites on either side of the mountain. However, The MRI study team believes that the Dorset fire districts could easily remove several units from their fleet without any impact on protection levels. In addition, all future



apparatus purchases should be reasonably specified to meet the realistic and expected fire protection needs of the town rather than have excessive capabilities.

CURRENT APPARATUS SET	RECOMMENDED APPARATUS SET
5 - Pumpers	2 - Pumpers
1 – Rescue Pumper	1 – Rescue Pumper*
0 - Tankers	1 – Tanker/Pumper**
2 – Brush Trucks	1 – Brush Truck
1 – Utility Vehicle	1 – Utility Vehicle
0 – EMS First Responder Vehicle	1 – EMS First Responder Vehicle***

* East Dorset Rescue 595

**Dorset Engine ETA 512 may qualify if it carries 1,800 gallons of water

***2011 Chevy Tahoe donated by Dorset resident. Currently be used by Manchester Rescue Squad.

The Dorset town manager and Selectboard have informed the MRI study team that based upon concerns expressed to them by some members of the community, and the financial inequities between the two fire districts the Town of Dorset would like to consider forming a single municipal fire department similar to Manchester or other comparable towns. They would then be interested in exploring a possible merger into a regional fire service with the Manchester Fire Department. Our research on this possibility indicates that in order for that to occur, the two existing districts would need to vote to dissolve. We do not believe this is likely to occur. The other option would be for the Vermont Legislature to take action at the state level to dissolve the districts. This is also unlikely. As a result, and until these important political, jurisdictional, and operational issues can be appropriately resolved we recommend that Manchester not become embroiled in this dysfunctional situation by considering any type of merger at this time.



RECOMMENDATIONS

The MRI study team makes the following recommendations regarding fire protection in the Town of Dorset and the Dorset and East Dorset Fire Districts:

Recommendation I-2-1: Until the current issues regarding the town's own fire service can be resolved, the Town of Dorset should abandon the concept of creating a regional fire service with Manchester for the foreseeable future.

Recommendation I-2-2: The Town of Dorset should assume responsibility for governance of the fire protection and water distribution systems within the town. This will require the town work collaboratively with both fire districts to hold a referendum to abolish the districts.

Recommendation I-2-3: The Town of Dorset should reintroduce the need to equalize district tax rates and create a single fire protection district (or department) serving the needs of the entire town.

Recommendation I-2-4: The Town of Dorset should take whatever steps are necessary to aggressively market the tax equalization plan, and actively encourage all residents to attend their respective district meetings and vote to create a single fire district, or, municipal fire department.

Recommendation I-2-5: Whether a single fire district is created, or, the town assumes responsibility for fire protection through formation of a municipal fire department a reasonable budget for fire services should be established.

Recommendation I-2-6: The Town of Dorset need to take appropriate priority action to correct the serious deficiencies water supply distribution system in the Dorset Fire District so that this important fire protection resource and fire hydrants in this area of town are able to meet Vermont state regulations and be placed fully back in service.

Recommendation I-2-7: Consideration should be given to the town establishing an enterprise account to allow the use of dedicated funds to finance water system improvements.

Recommendation I-2-8: The Town of Dorset will need to work closely with both the Dorset and East Dorset stations to address and resolve any outstanding conflicts and cultural issues that exist between the two. Strong leadership will be needed to merge the two organizations into one.

Recommendation I-2-9: The Town of Dorset should establish an appropriate command structure for the “new” Dorset Fire Department that keeps both existing stations operational but merges resources and operations into a single unified department.

Recommendation I-2-10: The “new” Dorset Fire Department should develop a single set of new rules and regulations and standard operating guidelines (SOGs) regarding operations of the department. This will clearly set the guidelines for the two previously independent fire companies to operate as a single department.

Recommendation I-2-11: Only fully trained and qualified personnel should be permitted to drive and operate fire apparatus. Junior members, particularly those under the age of 18 **SHOULD NEVER** be permitted to drive or operate fire apparatus.

Recommendation I-2-12: The “new” Dorset Fire Department should make it a priority to integrate members from both stations into the new unified department by providing cross training. In the short term, members of the East Dorset Fire Department who live or work in the Dorset area should be trained to drive and operate Dorset’s apparatus so they can assist with Dorset responses when necessary.

Recommendation I-2-13: The Town of Dorset should reduce the size of its current apparatus fleet. A recommended, and reasonable, apparatus set was illustrated previously in this chapter.

Recommendation I-2-14: The Town of Dorset and the “new” Dorset Fire Department should develop a much stronger, more comprehensive, and consistent training program for all members of the department. Priority should be given to getting all members certified to a minimum of Firefighter I and II within 24 months of their joining the department.

Recommendation I-1-15: Both Dorset Fire Districts should work closely with the Vermont Fire Academy and make it a high priority to significantly increase the number of department personnel who are certified to at least the Firefighter I level.

Recommendation I-2-16: The Town of Dorset needs to appropriate sufficient funds to meet the ongoing training needs of the fire department. This includes allowing personnel to attend outside training and certification programs, both basic and advanced, as well as, for providing appropriate in house training programs.

Recommendation I-2-17: A vehicle exhaust extraction system should be installed in the apparatus/vehicle bays of both the Dorset and East Dorset fire stations. Consideration

should be given to applying for an Assistance to Firefighters (AFG) grant to obtain funding.

Recommendation I-2-18: Monitored automatic fire detection and alarm systems should be installed in both the Dorset and East Dorset fire stations. Consideration should be given to applying for an Assistance to Firefighters (AFG) grant to obtain funding.

Recommendation I-2-19: The Dorset Fire Districts should implement agreements and procedures with surrounding fire departments to utilize automatic aid for the response of additional resources, both personnel and apparatus, to any reported structure fire.

Recommendation I-2-20: The Dorset Fire Districts/Department should develop and implement an EMS first response unit that will respond to all EMS calls (or at a minimum serious life threat types of medical emergencies) within the Town of Dorset. With the ambulance service provided by a unit responding from Manchester 9-1-1 callers in Dorset are going to frequently experience longer than recommended response times for assistance to arrive. A first responder unit from within the town could arrive on the emergency scene much quicker to supply basic care and/or life support to the patient. With only about 200 EMS calls per year in Dorset (204 in 2013) this equates to about 4 calls per week so it would not place unreasonable demands on the volunteer personnel. Implementation of this service would vastly improve EMS services and response times to medical emergencies in Dorset.

Recommendation I-2-21: The Manchester Rescue Squad is presently in possession of a 2011 Chevrolet Tahoe that was donated to the Town of Dorset by a local resident to be used by the town as a first response unit. Manchester rarely uses this vehicle as they make the vast majority of their responses in their ambulances. This unit should be returned to Dorset and stationed in one of the fire stations (and set up if it is not already so equipped) for use as an EMS quick response unit.

Recommendation I-2-22: The Dorset Fire Districts/Department should consider training any of their existing firefighters who are interested to at least the first responded level so the department can provide additional assistance and support to the rescue squad when needed particularly on life threat type medical emergencies.

Recommendation I-2-23: The Washington County Regional Dispatch Center (or the town's authorized PSAP) should utilize EMD to sort, filter, and prioritize EMS calls by their severity.

Recommendation I-2-24: The Dorset Fire District/Department EMS first response unit should be toned out to assist EMS on severe life threat “D” and “E” level medical emergencies.

Recommendation I-2-25: The Dorset Fire Districts/Department and Washington County dispatch center should implement use of a separate fire “EMS” tone to be utilized for dispatching EMS incidents. In that way, only interested personnel will be alerted for response.



II. MANCHESTER RESCUE SQUAD

Emergency Medical Services (EMS) operations are an important component of the comprehensive emergency services delivery system in any community. Together with the delivery of police and fire services, it forms the backbone of the community's overall public safety life net. In fact, as a percentage of overall incidents responded to, it could be argued that EMS incidents constitute the greatest number of "true" emergencies, where intervention by trained personnel does truly make a difference, sometimes literally between life and death.

The Manchester Rescue Squad (MRS) was organized in 1964. Like many rescue squads from that era, the personnel possessed basic first aid training and were primarily concerned with getting the patient to the nearest hospital. Over the years, the system has evolved into a full-fledged emergency medical services provider, first at the basic life support (BLS) level and since August 2000 at the advanced life support (ALS) level utilizing paramedics. In addition to Manchester, the squad provides EMS to 5 additional towns in the Northshire region covering 219.2 square miles: Danby, Dorset, Mt. Tabor, Rupert (partial non 9-1-1 coverage) and Winhall (partial coverage). Manchester Rescue Squad was honored as Vermont's State Ambulance Service of the Year in 1989 and 1999.

Although it is headquartered in the Manchester public safety building, unlike the police and fire departments, the rescue squad is an independent non-profit organization, not a municipal department or operation. The service is governed by a 7 member volunteer board of directors which is responsible for financial oversight, fundraising and public and town relations.

At the time of this assessment, the Manchester Rescue Squad had a total of 36 members on the roster. This includes 5 full time personnel one of whom functions as the chief operating officer (COO) responsible for managing daily operations of the squad such as staffing and scheduling, medical equipment, supplies and vehicles. The COO reports directly to the board. All of the full time personnel are paramedics with 2 of them holding advanced certification as critical care paramedics. In addition, 25 per-diem personnel and 6 volunteers fill out the membership. Per-diem and volunteer personnel possess one of five different certifications:

- Emergency Medical Responder (EMR)
- Emergency Medical Technician (EMT)
- Advanced Emergency Medical Technician (AEMT)
- Paramedic (EMT-P)
- Critical Care Paramedic.

It is important to note that as currently configured the rescue squad is slanted heavily toward compensated staff. It lacks the volunteer base of most similar agencies. The squad staffs 1 ambulance 24/7/365. Personnel staffing this unit are divided into two work shifts: 6:00 AM to 6:00 PM and 6:00 PM to 6:00 AM. A second unit is staffed daily from 9:00 AM to 6:00 PM which is the time of day with the highest number of incidents. Although they strive to have at least one EMT-P on duty at all times, minimum certification requirements for staffing include 1 EMT and 1 AEMT. This exceeds the state minimum requirements of 1 EMR and 1 EMT.

As previously noted the rescue squad operates from the Manchester public safety building. The town leases the squad about 5,600 feet of space in the building as part of a 5 year lease that was signed in October 2012. The lease calls for rent of \$10.00 per square foot per year and includes an annual assessment for dispatch services valued at \$140,000.00 increasing to \$150,000.00 by the end of the lease. However, the town waives the majority of the rent payments in exchange for the service the squad provides to Manchester in recognition of the associated in kind services. The town also reduced its direct financial support from \$10,000.00 annually to \$0 over a 3 year period. In reality, MRS pays the town \$3,600.00 annually for grounds and other maintenance and 1/3 of the cost for water and heat in the building in addition to 100% of the electricity they use. The current lease with the town expires on June 30, 2017.

The Manchester Rescue Squad operates 3 fully equipped ALS capable ambulances and a first responder vehicle. The current equipment is in relatively good condition despite the fact that two of the three ambulances are at least 10 years old and have over 100,000 miles on them. The squad would like to try to replace 1 ambulance about every 3 years and keep their ambulances on a 10 year replacement plan but that is not always possible due to funding considerations. This challenge is illustrated by the fact the newest current vehicle in the fleet is at least 5 years old and probably nearing 100,000 miles.

The following summarizes the Manchester Rescue Squad fleet:

- 2009 Ford E-450 Diesel Osage 4 wheel drive ambulance with 72,000 + miles.
- 2005 Ford E-450 Diesel Demers ambulance with 112,400+ miles.
- 2004 Ford E-450 Diesel Osage ambulance with 158,900+ miles.

- A new ambulance was delivered in February 2015 while this report was being prepared. Once it is placed in service the 2004 unit will be taken out of service. This unit was purchased through a cooperative agreement with Manchester which will be discussed later in this chapter.
- 2011 Chevrolet Tahoe gas first responder vehicle with 3,700 miles. **As previously noted this unit was donated by a resident of Dorset to be used for first response in/to Dorset.** MRS rarely uses the vehicle as it makes its responses in an ambulance. The MRI study team believes that the lack of use of this vehicle for its intended purpose illustrates a culture within the organization that stifles volunteerism. We believe this culture manifests itself at least partially in the high number of full time and part time personnel “employed” by MRS with a corresponding extremely small volunteer base when compared to any of the peer communities.

The Manchester Rescue Squad responds to between 1,100 and 1,200 emergency incidents per year. In 2013, the only year for which full statistics were provided, there were a total of 1,214 requests for service of which 1,173 were emergency responses. This equates to an average of 22.6 emergency responses per week and 3.2 per day. This is not a particularly high volume particularly for an EMS agency that serves 6 communities.

MANCHESTER RESCUE SQUAD RESPONSES BY TYPE - 2013

TYPE OF CALL	NUMBER
Emergency Incidents	1,173
ALS Intercepts	7
Inter-facility Transfers	3
Medical Transports	7
Mutual Aid	17
Standby	5
TOTAL	1,214

Source: Manchester Rescue Squad Presentation



MANCHESTER RESCUE SQUAD RESPONSES BY TOWN - 2013

CALLS BY TOWN	NUMBER	PERCENTAGE
Manchester	844	69.5%
Dorset	204	16.8%
Danby	86	7.1%
Winhall	15	1.2%
Mt. Tabor	11	0.9%
Rupert	4	0.3%
Other Areas	50	4.2%
TOTAL	1,214	100%

Source: Manchester Rescue Squad Presentation

Manchester Rescue Squad did not provide the MRI team with any additional information regarding their emergency response activity, response times, or NFPA 1710⁷ and/or CAAS⁸ compliance, etc. We believe that the squad probably achieves recommended response time targets in Manchester. However, in the Dorset area we would believe that response times are marginally compliant.

Most of the EMS training requirements are dictated by the State of Vermont or other licensing and/or certification authorities and involves initial training and education requirements necessary to obtain initial certification, as well as, continuing education requirements for recertification. These requirements can be fairly substantial from a time commitment standpoint (particularly for volunteer personnel) and are as follows:

- Emergency Medical Responder (EMR)
 - ✓ 45 hour initial course
 - ✓ 24 hours of continuing education every two year recertification cycle
- Emergency Medical Technician (EMT)
 - ✓ 150 hours didactic plus clinical requirements (usually taught over 6 months)

⁷ NFPA 1720, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Career Fire Departments*, 2010 edition (National Fire Protection Association, Quincy, MA), outlines organization and deployment of operations by career and primarily career (> 15% career) fire departments.

⁸ The Commission on Accreditation of Ambulance Services (CAAS) is an independent commission that established a comprehensive series of standards for the ambulance service industry.

- ✓ 72 hours of continuing education every two year recertification cycle
- Advanced Emergency Medical Technician (AEMT)
 - ✓ EMT plus 150 additional hours of didactic and clinical requirements (usually taught over 6 months)
 - ✓ 72 hours of continuing education every two year recertification cycle
- Paramedic
 - ✓ AEMT plus two-year college course involving didactic, hospital clinical time and ambulance clinical time
 - ✓ 72 hours of continuing education every two year recertification cycle
- Critical Care Paramedic
 - ✓ Paramedic plus 100+ hours of didactic and hospital clinical time
 - ✓ 36 hours of continuing education every two year recertification cycle (in addition to the 72 hours required for standard paramedic certification)

One of the catalysts for this study is the fact that the Manchester Rescue Squad is struggling both financially and also to maintain credible service levels within the communities that they serve. The crux of this problem is the rescue squad is experiencing significant difficulty in trying to raise sufficient funds to allow them to continue to operate. Continued decline in the rescue squad operations will result in a very large gap in the public safety service that is presently being provided.

The Manchester Rescue Squad only provided the MRI study team with limited budget and financial information consisting of very simplified (as opposed to detailed) revenue and expense breakdowns and only for a single year. However, based upon the information provided it appears that the squad’s 2013/2014 budget was \$715,900.00.

MANCHESTER RESCUE SQUAD INCOME BY CATEGORY – 2013/2014

REVENUE SOURCE	AMOUNT
Medical Receipts	\$522,500.00
Fundraising	\$ 82,750.00
Subscriptions	\$ 75,000.00
Municipal Funding	\$ 32,650.00
Classes and Ambulance Coverage	\$ 3,000.00
TOTAL	\$715,900.00

Source: Manchester Rescue Squad Presentation



MANCHESTER RESCUE SQUAD EXPENSES BY CATEGORY – 2013/2014

EXPENSES	AMOUNT
Payroll and Benefits	\$398,750.00
Professional Services	\$ 88,900.00
Insurance	\$ 80,000.00
Medical Equipment and Supplies	\$ 71,500.00
Vehicles Repairs and Maintenance	\$ 35,000.00
Utilities and Building Maintenance	\$ 15,000.00
Other	\$ 26,700.00
TOTAL	\$715,900.00

Source: Manchester Rescue Squad Presentation

While the tables above provided by the Manchester Rescue Squad nominally illustrate a balanced budget, the fiscal reality is somewhat different. In fact, fiscal challenges are the most serious issue facing the squad at this point. The squad has been having difficulty generating sufficient funds to be able to pay for the overall operation of the service. This is in large part due to an overall trend of declining reimbursement rates coupled with rising labor costs resulting in fiscal operating deficits for each of the previous 3 years.

EMS/RESCUE BUDGET COMPARISON

COMMUNITY	CURRENT EMS/RESCUE BUDGET
Ludlow, VT	\$355,275.00
Shelburne, VT	\$237,600.00
Stowe, VT	\$423,426.00
AVERAGE	\$338,767.00
Manchester Rescue Squad	\$884,100.00

Manchester Rescue Squad’s annual operating budget is very high in comparison to its peer communities. As the table above illustrates Manchester’s budget is \$545,333.00 higher, or, 2.6 times (+161%) the average peer communities. Even in comparison with the highest budget of the comparable communities Manchester’s budget is still more than double. While some portion of Manchester Rescue’s higher operating expenses may be attributed to the fact that the other entities are mostly all municipally operated services where certain cost associated with their operations may appear in other town



line items rather than the rescue squad's that cannot nearly justify all of this disparity and it is our opinion that Manchester's budget is still excessive.

A comparison of the staffing make-up of the comparable communities provides a clear picture of one reason why Manchester's budget is so much higher than its peers.

EMS/RESCUE STAFFING MODEL COMPARISON

COMMUNITY	NUMBER OF INCIDENTS 2013	NUMBER OF FULL TIME EMPLOYEES	NUMBER OF PART TIME EMPLOYEES	NUMBER OF VOLUNTEERS
Ludlow, VT	707	1	4	17
Shelburne, VT	865	1	10	42
Stowe, VT	648	3	7	25
AVERAGE	740	1.7	7	28
Manchester Rescue Squad	1,174	5	23	5

Although Manchester Rescue Squad does respond to about 59% more incidents than average, the number of full and part time employees are proportionally much higher than average while the number of volunteers is less than 20% of average.

As with most EMS providers today, the majority of MRS revenue is derived from 3rd party billing of insurance companies. MRS's revenue sources indicate that about 73% of their income is derived from these reimbursements. However, Medicaid and Medicare which are responsible for a large percentage of these reimbursements is low in Vermont. Private insurance companies frequently utilize these rates to set their own reimbursement levels. In addition, billing is only permitted when a transport occurs. This results in more than 1 out of 3 calls (34%) being non-billable. So of 1,200 calls per year, only about 700 to 800 can be billed for. However, the MRI team was informed that they are now billing \$100.00 for responses to residences that do not result in a transport.

MRS uses a third party to administer their billing and collections. Their current provider is New England Ambulance Billing (NEAB) of Vergennes, VT. The company bills and then aggressively pursues payments from Medicare, Medicaid, private insurance companies and the patients themselves. No percentage rate of actual collections was provided to the team. NEAB was previously charging a 15% commission on receipts collected. That commission is currently 11% which is reported to be lower than the Vermont average. However, based upon the previous experience of the study team this commission is actually excessive. Most commissions are in the 4% to 7% range, a fact borne out by the



comparable community surveys which indicated the highest percentage paid was 8% with an average of 5%.

Manchester Rescue also offers residents of their service area a “subscription” program which they describe as an annual EMS “insurance” program. For \$95.00 per household, per year (August 1 – July 31) 100% of MRS expenses are covered for the subscriber household regardless of whether they have insurance or not. While MRS will still bill the patient’s insurance, deductibles and other non-covered expenses are absorbed by the squad, and ultimately written off, rather than billing the patient directly for any balance left. Subscriptions are solicited by a direct mailing to all postal patrons in the towns it serves.

As of January 2014, it was reported that the 2013/2014 subscription drive had:

SUBSCRIBERS	GROSS REVENUE	ADDITIONAL RELATED DONATIONS
810	\$76,950.00	\$21,814.00

Source: Manchester Rescue Squad Presentation

MANCHESTER RESCUE SQUAD SUBSCRIBERS BY TOWN – 2013/2014*

TOWN	NUMBER OF SUBSCRIBERS	PERCENTAGE
Manchester	503	62.1%
Dorset	254	31.3%
Danby	39	4.8%
Winhall	7	0.9%
Rupert	4	0.4%
Mt. Tabor	3	0.4%

*Thru January 2014

Source: Manchester Rescue Squad Presentation

For FY 2014/2015 the annual subscription was raised \$10.00 to \$105.00 annually. No final figures on FY 2013/2014 subscriptions, or, FY 2014/2015 memberships to date were provided to the MRI study team. NEAB previously also administered the MRS subscription program for a 7% fee on revenue collected. The program is now managed internally by squad members. It was reported to MRI that the squad has never



attempted any type of business subscription and they would not be sure how to approach one.

An annual fundraising drive provides the squad's second largest source of revenue. This drive is conducted through mail with more than 3,000 letters personalized by members of the board and staff mailed out to residents of the various towns. Each year the fund drive usually focuses on a specific equipment need or project. In FY 2013/2014, the goal of \$70,000.00 was earmarked to pay off 3 heart rate monitors. As of January 2014, 334 donors had contributed \$66,029.00 towards this effort. On its website, the squad reports that it raised \$75,000.00, exceeding their goal by \$5,000.00. In FY 2014/2015, the fundraising goal is \$120,000.00. As of January 2015, 464 donors have contributed \$82,525.00 (68.7% of goal).

The final major source of revenue comes from funding provided by 5 of the towns serviced by the squad. Each town is assessed based upon the town's population as a percentage of the entire population served by MRS. The same type of financial arrangement has been proposed to help offset the cost of the new ambulance that has been ordered.

TOWN	POPULATION	NUMBER OF CALLS - 2013	ANNUAL FUNDING FOR MRS	NEW AMBULANCE FUNDING
Manchester	4,391	844	\$ 5,000.00*	\$20,000.00
Dorset	2,036	204	\$18,000.00	\$16,007.00
Danby	1,292	86	\$ 1,500.00	\$ 9,615.00
Winhall	702	15	\$ 1,500.00	\$ 2,889.00
Mt. Tabor	203	11	\$ 900.00	\$ 1,494.00
TOTAL	8,624	1,160	\$26,900.00	\$50,005.00

***Per the current agreement, Manchester's annual funding to MRS is reduced to \$-0- for FY 2016. However, the town still provides the squad with over \$200,000.00 in kind services including dispatching and building rental. Source: Manchester Rescue Squad Website**

The Manchester Rescue Squad is fully aware that it faces some significant challenges to its survival, both short and long term. Insurance payments from 3rd party bills are in a constant state of flux and primarily being reduced. The Vermont Health Exchange is experiencing significant operational problems and the full impacts of the Affordable Care Act are still largely unknown. Complicating matters further is the fact that in addition to the normal day-to-day operational needs of the organization a significant volunteer effort is required to manage the annual subscription and fund raising

campaigns. The Squad has recently suggested that it may need to start assessing the Town of Manchester a stipend to be able to continue to provide service.

As has been previously noted MRS feels that it need to purchase a new ambulance every 3 years to properly offset constantly rising maintenance and repair costs. However, previous targeted fundraising efforts have produced only about 50% of the funding necessary for a new ambulance. In addition, holding fundraisers to purchase a new ambulance every 3 years negatively impacts the squad's normal annual fundraising drive.

The Manchester Rescue Squad put together an ambulance fund proposal that would allow them to purchase a new ambulance every 3 years at a cost of about \$150,000.00. It also calculated maintenance and repair needs at \$17,000.00 with all costs increasing by 3% per year. All towns served would contribute based upon the percentage of its population relative to the entire MRS service area. However, this plan was shelved due to the uncertainty of year to year commitments and the Town of Manchester's rejection of it for an alternative plan.

The alternative plan that has provided the necessary ambulance funding for now is referred to as the Manchester Ambulance Lease Proposal. In May 2014, the Town of Manchester agreed to spend up to \$150,000.00 to purchase an ambulance from the town's capital improvement fund pending approval at Town Meeting. The purchase was also contingent upon the other participating towns approving the funding levels identified in the right hand column of the table on the preceding page. This vehicle was delivered in February 2015. Manchester will lease the vehicle to MRS for 9 years at an annual lease payment of \$20,000.00 per year, along with funding from the other towns, for the first 3 years and \$1.00 per year thereafter. While this purchase solves an immediate problem there is no commitment from the town to purchase another ambulance in 3 more years.

There are several factors that lead the MRI study team to have serious doubts about the long-term viability of the Manchester Rescue Squad as an independent, stand-alone entity. First, while the immediate equipment needs have been resolved with the purchase of a new ambulance and the lease agreement with the town, there is no certainty that this was anything but a one-time purchase and arrangement. In addition, and of greater concern, is the fact that MRS continues to operate at an annual deficit, although the extent of those annual losses could not be determined with the information that was provided to MRI. However, the question must be asked, how long can even modest annual losses be sustained before any reserve funds are depleted?

The Manchester Rescue Squad has offered 2 options for potential long-term solutions to the funding problem independent of a long-term commitment to the ambulance lease program it believes will help them tremendously from a financial standpoint. The first is to be taken under the Town of Manchester umbrella and become a municipal department. The Rescue Squad believes that about \$600,000.00 in annual funding would still be realized through third party billing and the subscription program. Some cost savings may be realized through sharing of clerical and support staff and general overall expenses. Concerns associated with this option include the possible loss of donations, and the need to enter into long term shared services or joint endeavors with the other towns and the annual financial implications that could entail.

The second option would involve a logical consolidation with the Manchester Fire Department. While the positives associated with becoming a separate town department would also apply here, some additional cost saving may be achieved by merging the staffs. While this merger would require extensive cooperation and cross training between the two entities as they transition into one with proper leadership, direction, and commitment, the dividends could be substantial. It could also possibly address the potential need for a small career fire force in the Towns of Manchester and Dorset to reduce the workload on the volunteer personnel particularly during the day. The same potential concerns exist with this option as with the first one. In addition, merging career and volunteer staffs could create some friction and result in a loss of some volunteer personnel.

RECOMMENDATIONS

Recommendation II-1: While MRI did not receive accurate response statistics with only just over an average of three (3) responses per day and 1.7 during normal weekday daytimes we do not believe there is a need for two (2) ambulances to be staffed during the day. Unless statistics show a definitive and ongoing need for it due to frequent simultaneous incidents which we believe is unlikely, MRS should give serious consideration to discontinuing the staffing of the second ambulance during the day and staff just one (1) ambulance 24 hours per day. In the infrequent instances, a second ambulance is needed during the times when volunteer availability is low personnel who respond to staff it could be compensated with an on-call type of stipend.

Recommendation II-2: Manchester Rescue Squad should revise its staffing protocol to one (1) EMT and one (1) paramedic on each ambulance.

Recommendation II-3: The Town of Manchester and Manchester Rescue Squad should work proactively to address the squad's long-term financial needs and viability. Other local towns who are also stakeholders in MRS operations should be invited to participate.

Recommendation II-4: The Town of Manchester and Manchester Rescue Squad should give serious consideration to merging MRS with the Manchester Fire Department. This merger would require the creation of a separate division within the fire department led by a deputy fire chief who would be responsible for day-to-day administration of the EMS system.

Recommendation II-5: If recommendation II-4, above is implemented, the town should attempt to retain key MRS staff to assist with the transition and continue to operate a high quality EMS service. However, the town should go thru a full recruitment, screening, and selection process to find the most qualified personnel to permanently fill these positions.

Recommendation II-6: If recommendation II-4, above, is implemented the town should give consideration to utilizing per-diem staff to the extent possible to help to offset personnel costs.

Recommendation II-7: If recommendation II-4, above, is implemented the Town of Manchester and the Manchester Fire Department should give consideration to applying for a federal Staffing for Adequate Fire and Emergency Response (SAFER) grant for the purpose of recruiting and retaining additional volunteer personnel to help operate this new service.

Recommendation II-8: If recommendation II-4, above, is implemented the Town of Manchester and the Manchester Fire Department should attempt to recruit, train and develop volunteer personnel in their service area, particularly personnel who are already fire department members, to provide an EMS first responder force to get assistance to the scenes of serious medical emergencies more quickly and provide basic life support and/or patient stabilization until the arrival of the ambulance.

Recommendation II-9: If the Town of Manchester assumes responsibility for EMS operations the town should attempt to enter into long term shared services agreements with the other participating towns to assure a steady stream of revenue, offset operating expenses and help to establish financial stability moving forward.

Recommendation II-10: The Town of Manchester should consider establishing an enterprise account to enable them to utilize financial receipts to help offset the cost of the EMS operations.

Recommendation II-11: The current ambulance billing rates should be evaluated and increased to the maximum rate permissible. Collection rates should also be analyzed and adjustment made if necessary to increase collections.

Recommendation II-12: The current contract with the third party billing company should be renegotiated to a more reasonable rate of between 4% and 7% of revenue collected. If the contract cannot be renegotiated it should be terminated at the earliest possible time and placed out for competitive bids.

Recommendation II-13: The Manchester Rescue Squad is presently in possession of a 2011 Chevrolet Tahoe that was donated to the Town of Dorset by a local resident to be used by the town as a first response unit. Manchester rarely uses this vehicle as they make the vast majority of their responses in their ambulances. This unit should be returned to Dorset and stationed in one of the fire stations (and set up if it is not already so equipped) for use as an EMS quick response unit.

III. COMMUNICATIONS

The Manchester Communications Center (MCC), which is located in the police department, provides all public safety communications for the Town of Manchester. This includes the Manchester police and fire departments, Manchester Rescue Squad and the town's highway department. Emergency medical dispatching (EMD) service is provided by the Vermont State Police who are the 9-1-1 emergency primary answering point. It was reported to the MRI study team that the MCC previously also handled dispatching and communications for the Dorset and East Dorset Fire departments. However, these departments were not satisfied with the service they received and expressed great dissatisfaction with the belief that they could not get procedures changed when needed.

Mr. Robert Mattison is the Director of Emergency Communications for the Manchester Police Department and reports directly to the police chief. A former interim police chief created and configured this position as it currently exists. Part of the position's duties and responsibilities involve performing some administrative work for the police chief which would normally be done by an administrative assistant. As a result the director works some dispatch shifts and some administrative shifts each week. It was MRI's conclusion that the MCC is a small operation to have a supervisor working strictly administrative shifts as opposed to actively functioning as a dispatcher and performing administrative tasks as time permits.

At the time of this assessment, the MCC had 4 full time dispatchers which includes the director. The full time personnel are supplemented by a cadre of 6 part time dispatchers who fill in when needed. The center is staffed with a single dispatcher 24/7. Dispatchers currently work a 6 days on with 2 days off schedule. This system has 16 hours of automatic overtime built into each 8 day cycle. It was reported to the study team that this schedule is in the dispatcher's contract and because of built in overtime they do not want to change the schedule. It is the opinion of the MRI study team that any schedule that provides built in overtime may not be the most cost effective way to provide the service. Manchester should analyze the cost benefits of this schedule.

Dispatchers currently do a number of administrative tasks such as payroll and report generation which would normally be done by an administrative assistant. The MCC has a written training program for new dispatchers along with a written evaluation program.

The MRI fire/rescue study team does note that requests for data on calls for service had to be requested several times. It appears that Manchester's records management system is fairly limited at the present time. Files of immediate nature are stored in the communications room. Slightly older files are kept in the director's space directly

behind the communications room. The department will be adopting a new records management system which is being developed in Vermont and is currently being used by the Burlington, VT Police Department. Accuracy was also noted as a problem by the MRI team. On several occasions, team members discovered errors in data provided to them and had to request corrected data/statistics.

The communications center is located just off the lobby of the public safety building. The single dispatch console currently has one operational position but is wired for two when expansion is necessary. A second operational dispatch console could be set up for a small investment in equipment, possibly just a computer. Another dispatch position is available and operational in the emergency operations center (EOC) located on the second floor of the fire department. The Manchester police transmit on a UHF frequency while the fire department transmits on VHF. The police communications system in Manchester is maintained by Wells Communications of Troy, New York.

The Manchester Fire Department chief officers indicated they had ongoing problems with the dispatch operations. They informed the study team that the MCC frequently dispatched the police first to fire calls to investigate and only dispatched the fire department after they (police) arrived on the scene. This practice causes a considerable delay in the response of the fire department. They also informed the team that consistency of dispatch operations was a major problem and that it was very difficult to get the center to follow the same procedure on all shifts. As previously noted Dorset, which is currently being dispatched by the Washington County Regional Dispatch Center in New York, was previously dispatched by the MCC. They left because they were unhappy with the service and could not get necessary dispatch procedures changed when needed.

If Dorset were to decide to rejoin the MCC for their emergency dispatching the director believes that the number of additional calls that would be generated by Dorset would be manageable. He noted that the Manchester dispatchers are frequently already involved in the call as they would be dispatching the ambulance or Manchester Fire on mutual aid. The director does not believe that any overall increase in personnel will be necessary even to add on police calls from Dorset. His only concern would be overloading the single dispatcher when there is a call, such as a fire, that involves multiple agencies who all have communications needs at the same time. In this case, a procedure would need to be put into place for a quick response by a second dispatcher for such emergencies. It would also be imperative that the existing dispatch console be upgraded to handle the second dispatcher position.

The position of Green Peak Mountain does present some potential challenges regarding radio transmissions to the Dorset and Dorset Hollow areas of town. Manchester Rescue

Squad does have a repeater located on a tower in the Dorset area and their communications in that town are reported to be acceptable. This location should be studied regarding suitability for placement of a police radio repeater.

Manchester Police recently conducted radio field testing of the Manchester Fire Department, Manchester Police Department, Manchester Rescue Squad, and Dorset Fire Department radio communications systems. This field testing consisted of taking an apparatus with mobile and portable radios to various locations in the Dorset and East Dorset areas to assess reception and transmission. The mobile radios in the equipment worked in all of the areas. Reception on both ends was acceptable. While this result may on the surface appear to be a positive, the results could change as the trees regain their foliage once the warm weather arrives. It was also determined that the portable radios will not work in the vast majority of the area including some areas in Manchester itself. This is likely as a result of the lower wattage of the portables. It appears that is situation will necessitate the installation of some type of repeater(s) to facilitate communications back to the dispatch. The chief has requested information regarding options (equipping each vehicle with an on board repeater or a permanent installation at a fixed location) and potential costs. Either of these options present a significant potential cost that would be associated with this collaborative effort.

The Town of Dorset reports having non-police radio equipment located at the town office, both fire stations, and the Dorset School. The town has a repeater on the Dorset School and base station at the town office. These locations, as well as, the antennae site owned by the Manchester Rescue Squad, could be studied as potential repeater sites to extend the Manchester Police radio system into Dorset.

RECOMMENDATIONS

The MRI study team makes the following recommendations regarding the Manchester Communications Center:

Recommendation III-1: The Town of Manchester should closely examine the financial and worker productivity/fatigue implications to the town of a dispatcher work schedule that has dispatchers working six (6) straight days and includes 16 hours of overtime automatically built in every eight (8) days. Consideration should be given to negotiating a change in the work schedule to a more cost effective one.

Recommendation III-2: As also recommended in the police department report, the Town of Manchester should give consideration to hiring a part-time administrative assistant for the police department. This will relieve the MCC director of some of his administrative duties allowing him to focus more on what should be his primary duties and responsibilities as a working head or supervisory dispatcher.

Recommendation III-3: The Town of Manchester should upgrade the dispatch center to provide for a second fully functional dispatch console to be available for use by an additional dispatcher during major emergencies/events and during times of extraordinarily high incident volume such as major storms.

Recommendation III-4: An emergency call in procedure should be established to provide a means to quickly get a second dispatcher into the center to assist during major emergencies or during times of high incident volume.

Recommendation III-5: The Town of Manchester should form a police, fire, rescue, dispatch working group comprised of a senior officer of each organization for the purpose of discussing dispatch related issues. The group should meet monthly. Any issues should be brought forward in writing and solutions/resolutions should be distributed to all parties concerned. They also need to develop a formal procedure to follow so the when a procedure needs to be changed, or a problem dealt with, it can be done in a timely manner.

Recommendation III-6: A dispatch procedures manual should be developed with input and agreement by all participating agencies on standard dispatch protocols that will be utilized for fire, rescue, and EMS emergencies. To the extent possible, procedures should be tailored to the unique operational needs of each specific member department and community. Policies, procedures, and protocols should follow national best practices such as CALEA.

Recommendation III-7: The fire department(s) and rescue squad need to review the dispatch procedures and protocols they require to be followed when being dispatched at least annually. They should be updated periodically as necessary.

Recommendation III-8: The Manchester Police and Fire Departments should respond as a team to emergency incidents within the town. The fire department should be dispatched immediately upon receipt of any 9-1-1 call or alarm that would warrant their response (caller reports a fire or potential fire, smell of smoke, smoke in the building, etc.). The dispatch of the fire department should be driven by policy and never delayed for convenience or by dispatcher discretion. Delays in dispatching while the police investigate is unacceptable and contrary to accepted best practices in the emergency services.

Recommendation III-9: The MCC director should ensure that he has adequate written procedures, policies and protocols in place for his dispatchers, and that they are specific enough to cover the required tasks and operations. These should also be reviewed periodically to assure they are up to date.

Recommendation III-10: The MCC director needs to periodically review all policies, procedures, and protocols with all of the full and part time dispatchers to ensure they are totally familiar with them.

Recommendation III-11: Based upon the results of the recent tests conducted by Manchester Police potential options for improving critical emergency radio communications throughout the area should be identified. Cost estimates for making necessary improvements should also be developed.

Recommendation III-12: With the MCC already handling dispatch and communications for Manchester Rescue, and the possibility that Manchester Police may assume law enforcement duties in Dorset, the Town of Dorset should be approached about possibly having their fire department dispatching and communications needs returned to Manchester. It would make operational sense for all communications needs for the town to be centrally located in one place.

CONCLUSION

The MRI study team believes very strongly that the Towns of Manchester and Dorset are pursuing a responsible course of action by having their current emergency service systems evaluated and considering alternative delivery systems as options for providing the most effective and efficient levels of protection to their residents and taxpayers. This is simply good fiscal stewardship and one that is a vital necessity in the new economic climate that they must operate in. We commend them for initiating this process. With these evaluations though come difficult, perhaps politically unpopular decisions that will need to be made. It is the unenviable task of the various governing bodies and autonomous commissions to evaluate the options that have been presented to them and try to determine the best course of action to take for the constituents they have been elected to serve and represent. It is important that each person try to evaluate and consider the big and long-range pictures as they contemplate the correct way to proceed.

We believe that the Town of Manchester could achieve a positive cost benefit return and reduce overall costs by taking over control of the Manchester Rescue Squad as recommended. Key to this endeavor would be merging the operations of the existing fire department and rescue squad into a single entity. Definitely “right sizing” the rescue squad operation would also be fiscally prudent.

The Town of Dorset could achieve saving by combining the two fire districts into a single district, or, a municipal fire department. If the future goal remains a regional fire service consisting of a potential merger of Manchester and Dorset then a municipal fire department would streamline that process when and if the proper time arrives. In the interim Dorset could achieve cost savings through the development of a more reasonable fire protection budget for the town and “right sizing” the apparatus fleet. On the other side of the coin, an investment will need to be made in the water supply infrastructure in the Dorset area to correct the current deficiencies.

Although they have not gained a strong hold in New England or the Northeast shared services, mergers and regionalization are concepts that will only continue to grow in popularity and practice as governing bodies attempt to minimize or reduce costs. Evaluation and consideration of these types of endeavors should be an ongoing process by all governing bodies who are concerned about achieving the most cost efficiencies possible while simultaneously still providing high quality service. While we do not recommend a merger of the Manchester and Dorset fire services at this time with the necessary commitment to change, improve, and continually move forward we believe that both communities can certainly overcome the challenges that they face. If the recommendations in this report are used as a roadmap then it is likely that five (5) to

ten (10) years down the road the suggested merger may be much more feasible and stand a much better chance of being successful.

MANCHESTER/DORSET BENCHMARKING

As part of the study, the team prepared a benchmarking and comparative analysis survey for distribution to a number of comparable communities. The communities selected were derived from recommendations from governing town officials. This is done purposely to avoid any perception that the members of the departments being assessed selected favorable comparables.

The data provided by these communities is just one of several tools that we are providing to the towns to assist them with understanding how their emergency services departments compare to organizations serving other similar communities in Vermont. Allowing them to view their emergency services operations in comparison to other communities will allow them to have some different perspectives to utilize for comparison as they make decisions for determining the future course of the Manchester and Dorset emergency services systems.

Town of Manchester

The Town of Manchester developed a listing of seven peer communities. These communities included:

- Stowe
- Shelburne
- Hinesburg
- Charlotte
- Underhill
- Woodstock
- Ludlow

Of these communities, three provided a response. The respondents included the Towns of Ludlow, Shelburne, and Stowe.

SIGNIFICANT FINDINGS AND OBSERVATIONS

The comparative analysis of the data detailed below leads to the following observations:

General Town Operations

- Manchester's grand list total is slightly higher than average.
- The fiscal 2015 tax rate is 3% below average.
- Manchester's overall municipal and school budget is just 78% of the average.

Fire Service

- Manchester's fire department budget is significantly lower, only 46% of the average.
- Manchester's number of volunteer firefighters is slightly higher (7%) than average.
- The number of emergency incidents is slightly (2%) higher than average.
- Manchester's average response time to a structure fire of 8 minutes is just 72% of the average response time of 11 minutes.
- Manchester has 43% more active volunteers than average, however, the number of active volunteers who respond to at least 50% was below average.
- With 8 vehicles in its fleet Manchester has 1 more vehicle than average.

EMS/Rescue Squad

- All of the comparable communities EMS agency is municipally operated. Manchester is the only private entity.
- Manchester Rescue's operating budget is more than 2.5 times the average.

- The number of full time employees is 2.5 times the average and the number of part time employees is 3 times the average.
- Manchester’s number of volunteer personnel is just 18% of the average.
- Revenue generated in Manchester is more than double the average.
- The number of emergency incidents is nearly 60% above average and the number of transports is 46% above average.
- The average number of calls for all time periods was above average to well above average in Manchester.
- Manchester’s BLS and ALS billing rates were both higher than average.
- Manchester’s EMS billing collection rate of 90% is above average.
- By staffing 2 EMS units during the day Manchester is double all the other communities who each only staff a single unit.

MANCHESTER GENERAL OPERATIONAL COMPARISONS

PEER ORGANIZATION	COMMUNITY POPULATION	SQUARE MILES	ROAD MILES	GRAND LIST TOTAL
LUDLOW, VT	1,950	50	50	\$1,312,499,000
SHELBURNE, VT	7,144	24	59	\$ 14,701,333
STOWE, VT	4,314	72.7	95	\$2,071,266,000
AVERAGE	4,469	48.9	68	\$1,132,822,111
MANCHESTER, VT	4,391	42	69.49	\$1,159,768,000
DEVIATION	0.98	0.86	1.02	1.02



PEER ORGANIZATION	FISCAL 2015 TAX RATE	MUNICIPAL AND SCHOOL BUDGET
LUDLOW, VT	1.86	NOT REPORTED
SHELBURNE, VT	1.42	\$19,901,700
STOWE, VT	1.96	\$22,983,783
AVERAGE	1.75	\$21,442,742
MANCHESTER, VT	1.69	\$16,793,422
DEVIATION	0.97	0.78

MANCHESTER FIRE SERVICE COMPARISONS⁹

PEER ORGANIZATION	POPULATION OF AREA OR DISTRICT SERVED	SEASONAL POPULATION	TYPE OF DEPARTMENT	CURRENT FIRE BUDGET
LUDLOW, VT	2,000	15,000	VOLUNTEER	\$144,000
SHELBURNE, VT	7,144	7,144	VOLUNTEER	\$193,000
STOWE, VT	4,800	12,000	VOLUNTEER	\$219,231
AVERAGE	4,648	11,381		\$185,410
MANCHESTER, VT	4,391	12,000	VOLUNTEER	\$ 85,600
DEVIATION	0.94	1.05		0.46

⁹ Some of the data supplied by Manchester for the benchmarking and comparative analysis portion of this study differed slightly from data supplied for, and analyzed, for other aspects of this report.



PEER ORGANIZATION	NUMBER OF VOLUNTEER FIREFIGHTERS	NUMBER OF ACTIVE VOLUNTEERS	ACTIVE VOLUNTEERS THAT RESPOND TO 50% OR MORE OF INCIDENTS	NUMBER OF TIMES THAT NO PERSONNEL WERE AVAILABLE TO RESPOND
LUDLOW, VT	36	27	15	0
SHELBURNE, VT	32	26	14	2
STOWE, VT	30	27	20	0
AVERAGE	33	27	16	0.67
MANCHESTER, VT	35	38	15	1
DEVIATION	1.06	1.41	0.94	1.49

PEER ORGANIZATION	NUMBER OF EMERGENCY INCIDENTS	AVERAGE RESPONSE TIME TO A STRUCTURE FIRE	TOTAL NUMBER OF VEHICLES OPERATED
LUDLOW, VT	151	12 MINUTES	6
SHELBURNE, VT	288	9 MINUTES	8
STOWE, VT	220	13 MINUTES	8
AVERAGE	220	11.3 MINUTES	7.3
MANCHESTER, VT	224	8 MINUTES	8
DEVIATION	1.02	0.71	1.09



MANCHESTER EMS/RESCUE SQUAD COMPARISONS

PEER ORGANIZATION	CURRENT OPERATING BUDGET	NUMBER OF FULL TIME EMPLOYEES	NUMBER OF PART TIME EMPLOYEES	NUMBER OF VOLUNTEERS
LUDLOW, VT	\$355,275	1	4	17
SHELBURNE, VT	\$237,600	1	10	42
STOWE, VT	\$423,426	3	7	25
AVERAGE	\$338,767	1.67	7	28
MANCHESTER, VT	\$884,100	5	23	5
DEVIATION	2.61	2.99	3.29	0.18

PEER ORGANIZATION	MUNICIPAL OR PRIVATE ORGANIZATION	COST OF FUNDRAISING	% OF HOUSEHOLDS THAT SUBSCRIBE	NUMBER OF EMERGENCY INCIDENTS 2013
LUDLOW, VT	MUNICIPAL	\$ -0-	0	707
SHELBURNE, VT	MUNICIPAL	\$1,500	31%	865
STOWE, VT	MUNICIPAL	\$ -0-	0	648
AVERAGE	MUNICIPAL	\$ 500	10.3%	740
MANCHESTER, VT	PRIVATE	\$4,500	7%	1,174
DEVIATION		9.0	0.68	1.59

PEER ORGANIZATION	NUMBER OF TRANSPORTS 2013	ALS BASE RATE	BLS BASE RATE	TRANSPORT MILEAGE RATE
LUDLOW, VT	573	\$500	\$425	\$17.00
SHELBURNE, VT	530	\$800	\$500	\$12.00
STOWE, VT	440	\$675	\$525	\$18.00
AVERAGE	514	\$658	\$483	\$15.70
MANCHESTER, VT	750	\$786	\$650	\$15.00
DEVIATION	1.46	1.19	1.34	0.96

PEER ORGANIZATION	AMBULANCE TRANSPORT REVENUE	OVERALL COLLECTION RATE	% PAID TO BILLING COMPANY
LUDLOW, VT	\$325,000	94%	0%
SHELBURNE, VT	\$195,515	84%	8%
STOWE, VT	\$224,000	63%	7%
AVERAGE	\$248,172	80.3%	5%
MANCHESTER, VT	\$548,500	90%	11%
DEVIATION	2.21	1.12	2.2



PEER ORGANIZATION	AVERAGE WEEKDAY CALLS 7 AM – 6 PM	AVERAGE WEEKEND CALLS 7 AM – 6 PM	AVERAGE WEEKDAY CALLS 6 PM – 7 AM	AVERAGE WEEKEND CALLS 6 PM – 7 AM
LUDLOW, VT	2	0.7	0.6	1
SHELBURNE, VT	2	1.8	0.6	1
STOWE, VT	0	0.8	0.8	0
AVERAGE	1.3	1.1	0.67	0.67
MANCHESTER, VT	1.7	1.3	1.2	1
DEVIATION	1.31	1.18	1.79	1.49

PEER ORGANIZATION	TYPICAL UNIT STAFFING	UNITS STAFFED DAY	UNITS STAFFED NIGHT
LUDLOW, VT	VARIES	1	0
SHELBURNE, VT	AEMT	1	1
STOWE, VT	AEMT	1	1
AVERAGE	39,252	1	.67
MANCHESTER, VT	PARAMEDIC	2	1
DEVIATION		2.00	1.49



Town of Dorset

The Town of Dorset developed a listing of nine peer communities. These communities included:

- Woodstock
- Ludlow
- Norwich
- Arlington
- Wilmington
- East Montpelier
- Wallingford (multiple fire districts)
- Ferrisburgh
- Monkton

Of these communities, 6 provided a response. The respondents included the Towns of Arlington, Ferrisburgh, Ludlow, Monkton, Norwich, and Wallingford.

As noted previously the Town of Dorset is currently served by both the Dorset and East Dorset Fire District. This analysis looks at the cumulative information for the Town of Dorset. Using the combined fire district data enables Dorset to be fairly compared to other peer communities.

SIGNIFICANT FINDINGS and OBSERVATIONS

The comparative analysis of the data detailed below leads to the following observations:

General Town Operations

- Dorset's grand list total is 25% higher than average.
- The fiscal 2015 tax rate is 90% of the average of the peer communities.
- Dorset's overall municipal and school budget is 58% higher than the average.

Fire Service – Cumulative Town of Dorset including both Dorset and East Dorset Fire Districts

- The Town of Dorset’s fire department budget is 132% higher than average.
- All of the departments that responded are fully volunteer the same as Dorset.
- The Town of Dorset’s has fewer volunteer firefighters than average.
- The number of emergency incidents is 71% higher than average.
- The Town of Dorset’s number of active volunteers is just 45% of the average, however, the number of active volunteers who respond to at least 50% of calls was just slightly below average.
- Overall, the Town of Dorset has 3 times the average number of pumpers, 6 versus 2.
- With 2 brush trucks, Dorset has double the average.
- With 9 vehicles in its fleet, Dorset has 3 more vehicles than the average of 6.

EMS/Rescue Squad

- EMS in the comparable communities was a mix including municipally operated, regional, private entity and contract service.
- Only 1 community provided budget information for EMS and their cost was \$355,275.00

DORSET GENERAL OPERATIONAL COMPARISONS

PEER ORGANIZATION	COMMUNITY POPULATION	SQUARE MILES	ROAD MILES	GRAND LIST TOTAL
ARLINGTON, VT	2,317	42.4	35	\$ 315,347,400
FERRISBURGH, VT	2,775	61	75	\$ 502,651,000
LUDLOW, VT	1,950	50	50	\$1,312,499,000
MONKTON, VT	1,980	36	53	\$ 211,788,000
NORWICH, VT	3,414	44	75.2	\$ 712,134,000
WALLINGFORD, VT	2,079	43.4	62.8	\$ 217,628,000
AVERAGE	2,419	46.1	58.5	\$ 545,341,233
DORSET, VT	2,031	47.9	70	\$ 717,296,500
DEVIATION	0.84	1.03	1.20	1.25

PEER ORGANIZATION	FISCAL 2015 TAX RATE	MUNICIPAL AND SCHOOL BUDGET
ARLINGTON, VT	1.52	NOT REPORTED
FERRISBURGH, VT	1.83	\$5,273,152
LUDLOW, VT	1.96	NOT REPORTED
MONKTON, VT	2.05	\$3,450,000
NORWICH, VT	2.28	\$1,210,286
WALLINGFORD, VT	1.95	\$4,916,316
AVERAGE	1.93	\$3,712,439
DORSET, VT	1.75	\$5,850,000
DEVIATION	0.90	1.58



DORSET FIRE SERVICE COMPARISONS

PEER ORGANIZATION	POPULATION OF AREA OR DISTRICT SERVED	SEASONAL POPULATION	TYPE OF DEPARTMENT	CURRENT FIRE BUDGET
ARLINGTON, VT	3,678	3,678	VOLUNTEER	\$152,300
FERRISBURGH, VT	2,800	3,150	VOLUNTEER	\$ 95,000
LUDLOW, VT	2,000	15,000	VOLUNTEER	\$144,000
MONKTON, VT	1,980	1,980	VOLUNTEER	\$ 55,000
NORWICH, VT	3,414	3,414	VOLUNTEER	\$355,707
WALLINGFORD, VT	2,079	2,079	VOLUNTEER	\$127,096
AVERAGE	2,659	4,884	VOLUNTEER	\$154,851
DORSET, VT	2,031	3,200	VOLUNTEER	\$360,000
DEVIATION	0.76	0.66		2.32

PEER ORGANIZATION	NUMBER OF VOLUNTEER FIREFIGHTERS	NUMBER OF ACTIVE VOLUNTEERS	ACTIVE VOLUNTEERS THAT RESPOND TO 50% OR MORE OF INCIDENTS
ARLINGTON, VT	48	48	NOT REPORTED
FERRISBURGH, VT	43	43	18
LUDLOW, VT	36	27	15
MONKTON, VT	20	20	15
NORWICH, VT	37	30	NOT REPORTED
WALLINGFORD, VT	NOT REPORTED	NOT REPORTED	NOT REPORTED
AVERAGE	34	34	16
DORSET, VT	30	15	15
DEVIATION	0.88	0.44	0.94

NOTE: The benchmarking/comparative analysis survey asked fire service agencies to provide the number of times in 2013 that no personnel from their department were

available to respond to an emergency incident and how many times a mutual aid department was the first to arrive at the scene of an incident in their district. Dorset did not provide this information as it was reported that they do not track that data. However, the MRI study team was advised that this situation does occur on a periodic basis in the town particularly in the Dorset Fire District where East Dorset arrives on the scene first. Most of the other communities that responded reported that they rarely, if ever, are unable to respond to an incident. While the majority of other respondents reported that a mutual aid department may occasionally arrive on the scene of an emergency in their community first, again, Dorset was unable to provide the requested information on how often this occurs in town.

PEER ORGANIZATION	NUMBER OF EMERGENCY INCIDENTS	AVERAGE RESPONSE TIME TO A STRUCTURE FIRE
ARLINGTON, VT	NOT REPORTED	5 MINUTES
FERRISBURGH, VT	64	10 MINUTES
LUDLOW, VT	151	12 MINUTES
MONKTON, VT	51	UNKNOWN
NORWICH, VT	214	UNKNOWN
WALLINGFORD, VT	NOT REPORTED	UNKNOWN
AVERAGE	120	9 MINUTES
DORSET, VT	205	NO DATA
DEVIATION	1.71	



PEER ORGANIZATION	NUMBER OF PUMPERS	NUMBER OF TANKERS	NUMBER OF BRUSH UNITS	TOTAL NUMBER OF VEHICLES OPERATED
ARLINGTON, VT	3	1	1	7
FERRISBURGH, VT	1	1	1	4
LUDLOW, VT	1	1	1	6
MONKTON, VT	2	1	1	5
NORWICH, VT	2	1	1	6
WALLINGFORD, VT	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED
AVERAGE	1.8	1	1	5.6
DORSET, VT	6	0	2	9
DEVIATION	3.33	0.00	2.0	1.61

DORSET EMS/RESCUE COMPARISONS¹⁰

PEER ORGANIZATION	POPULATION OF AREA SERVED	SEASONAL POPULATION	MUNICIPAL OR PRIVATE ORGANIZATION	CURRENT OPERATING BUDGET
ARLINGTON, VT	2,317	2,317	PRIVATE	PRIVATE
FERRISBURGH, VT	2,775	2,775	CONTRACTED	CONTRACTED
LUDLOW, VT	4,000	15,000	MUNICIPAL	\$355,275
MONKTON, VT	1,980	1,980	REGIONAL	REGIONAL
NORWICH, VT	3,414	3,414	MUNICIPAL	FIRE BUDGET LINE
WALLINGFORD, VT	2,079	2,079	NOT REPORTED	NOT REPORTED
AVERAGE	2,761	4,594		\$355,275
DORSET, VT	2,031	6,000	PRIVATE/REGIONAL	\$ -0-
DEVIATION	0.74	1.31		

¹⁰ Some of the data supplied by the benchmarking communities for "Population of Area Served" and "Seasonal Population" under the EMS/Rescue area are much different than the figures provided by those same communities under the overall general community and fire service headings. While MRI was unable to determine why, one possible explanation could be that the EMS/Rescue agencies serve a different geographic area and/or population than the town itself and/or the fire department's response area. In addition, in most cases, seasonal population fluctuations are, at best, a rough estimate.

