FINAL REPORT

PUBLIC SAFETY SERVICES ORGANIZATIONAL ANALYSIS

SALEM, CT

OCTOBER 2014

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Municipal Resources

MUNICIPAL RESOURCES INC.

Services for Effective Government

Town of Salem, Connecticut

Public Safety Services Organizational Analysis

September 2014

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PUBLIC SAFETY SERVICES ORGANIZATIONAL ANALYSIS

SALEM, CT

SEPTEMBER 2014

EXECUTIVE SUMMARY

The Town of Salem, Connecticut, covers 29.0 square miles, and has a population of 4,142. Demographics indicate that the Town of Salem has experienced controlled growth over the previous decade (7.4% increase 2000-2009). Salem is a relatively affluent suburban community where both income and property valves are above average. Topography and the lack of municipal water supply produce fire protection challenges for the Town.

The Town is served by the following public safety entities:

- Law Enforcement – Connecticut State Police Resident Trooper Program;
- Emergency Management – Local Emergency Manager and Emergency Management Committee;
- Fire Protection - Salem Volunteer Fire Company and the Gardner Lake Volunteer Fire Company;
- Fire Prevention – Local Fire Marshal.

Our observation is that the resident trooper program is providing quite adequately for the policing needs of the community and should continue as long as the service level and response capabilities continue to align with the needs and expectations of the community. Based on the resident survey, the citizens of Salem are pleased with the level of law enforcement services they receive. The cost of developing and operating a

local police department would very likely eclipse the cost of contracting with the State Police in a very short time.

Emergency Management and Fire Prevention services are both provided on a local level. The Emergency Management Program needs to improve the level of communication and coordination with the other public safety entities serving the community; due in part to the Emergency Manager having limited availability due to conflicting obligations. It would be beneficial to consider appointing a Director who can reliably be available to respond to significant events.

The Fire Marshal seems to provide a high level of service to residents as was reflected in the resident survey. As the community continues to grow, the Fire Marshal will need to increase communication and coordination with the fire departments and help focus on preplanning of target hazards that exist within the community.

Fire protection is provided by both the Salem Volunteer Fire Company (SVFC) and the Gardner Lake Volunteer Fire Company (GLVFC) however, the "service districts" that each department has historically considered to be their primary response area are not equal. Current coverage patterns for the community are in the following table:

Fire Service Agency	Percentage of the Community Area	Percentage of Road Miles	Percentage of Residences	Business District
SVFC	75%	80%	66%	Yes
GLVFC	25%	20%	34%	No

These two organizations collectively combine to deliver a reasonably high level of Fire/ Rescue service to the Town of Salem, and the survey suggests there is a high level of support for and satisfaction with both Departments.

The positive citizen perception of each Department notwithstanding, there are substantial inefficiencies and added costs associated with the dual independent department operating model. The existence of multiple volunteer Departments in a community frequently leads to unhealthy competition for support, which can easily translate into the acquisition and maintenance of excess equipment and apparatus. In our view, this is certainly the case in Salem. When compared to national data, the community has approximately 25% more equipment than one would expect to find in a comparable community employing a single department operating model. When purchasing fire apparatus in the future, decisions should be based upon community wide needs as opposed to service area requirements. The ideal apparatus set identified in the body of this report should be a helpful beginning point and ultimately incorporated into a single town-wide, ten-year capital refurbishment/replacement plan.

Historically, volunteer fire departments (fire companies) grew out of the need for organized fire protection capabilities in specific built up areas and neighborhoods, in many cases, more than 100 years ago. This model of service evolved long before the adoption of contemporary building and life safety codes, motorized apparatus, smoke detectors, instantaneous communications, public water supplies, sprinkler systems, paved roadways, and other advances that have significantly reduced the risk of loss of life and property to fires.

Even though communities continued to grow, and the challenges and methods of providing fire prevention/suppression have changed significantly over time, the "neighborhood fire company model" has remained as a strong tradition in many places. It is not uncommon to have more than one "volunteer" fire department in a community. In fact, we have seen communities with up to five separate departments all serving the same municipality, each with a limited perspective of community needs, as filtered through the lens of their own separate "neighborhood" service area.

When multiple "neighborhood" fire service agencies exist in the same municipal jurisdiction, they often develop a sense of competition, divergent operational structures evolve, and dissimilar organizational cultures grow. Turf and organizational rivalry becomes commonplace between shifts, groups, and the organizations themselves, and a competitive atmosphere morphs into a more counterproductive and destructive "us versus them" environment. In Salem, it seems that there is a strong sense of competition that teeters on the brink of "us versus them", especially at the organizational and management level. Decision making seems too parochial; for example, the current deployment of 1 paid firefighter at each station (one of whom is the Chief of the Gardner Lake Department) during the daytime is inefficient, arguably risky for the staff, and creates potential liability for the Town. We believe that the ambulance and the staff person should be relocated from the Gardner Lake station to the Salem station so that the two firefighter/EMTs are teamed together and able to respond with the ambulance or appropriate fire apparatus as the nature of each call dictates. The current set–up appears to result from each department wanting to maintain their own identity and control rather than structuring a safer more rational approach that is better for the community as a whole and the firefighters themselves.

Basic emergency medical transport service is currently provided by the Gardner Lake Volunteer Fire Company in conjunction with personnel support from the Salem Volunteer Fire Company. Advanced Life Support (ALS) services are rendered intercept from a service designated for ALS per the State of Connecticut. After speaking with the ALS service provider, American Ambulance, they indicated they do not intend to relinquish, and would strongly resist any attempt to alter this service area designation.

Based upon data analysis and multiple interviews, it is apparent the response is often less than adequate during daytime weekday hours. As this issue is not solely related to EMS, we have outlined a slow transition to limited full-time staffing during these critical hours.

While there is reasonable justification for having two fire stations (buildings housing apparatus) serving the Town, from a management and operational perspective there is no rationale to continue operating as two independent, autonomous agencies. In fact, there are strong and compelling reasons to organize and function as a single, and hopefully, cohesive operating unit. At a minimum, the two organizations need to train together, develop a common set of Standard Operating Guidelines (SOGs), and make budgeting and capital acquisition decisions as a single entity. However, the preferable model, from our view, would be total consolidation into a municipal fire department operating under the oversight and direction of the Board of Selectmen.

Creating the position of a single, Municipal Fire Chief, and placing the management and control of all fire/rescue operations under the Fire Chief's authority should be, in our view, a primary goal for accomplishment within the next few years. The sooner the Town can ensure that there is a single organizational and operational structure established to administratively and operationally manage fire/rescue services for the Town, the better.

There needs to be a single point of authority and responsibility to orchestrate and direct fire/rescue operations for the community. In addition to establishment of a new position within the Town of Salem government, it will be necessary to restructure or eliminate the individual department's charters. We understand and appreciate the history and traditions associated with these two organizations, and recognize how important the sense of identity and pride can be in attracting and maintaining a vibrant and viable group of volunteers. However, since all volunteer fire services are based upon service to community, we would hope that with the appropriate leadership and attitude, transferring the sense of pride and identity could quickly transfer to a community-wide delivery system. In addition to containing cost, improving efficiency, and enhancing overall safety, a unified operational approach could also serve to improve the ability to attract and retain volunteers in the face of rather daunting counter trends.

According to the National Volunteer Fire Council, the number of volunteer firefighters has declined 13% since 1984, and that trend is expected to escalate as the first wave of baby boomers comes of retirement age. The challenge of finding and attracting replacement volunteers will be even more difficult for Salem and other Connecticut cities and towns (and most other New England states) since the percentage of aging adults is increasing much more rapidly than younger generation replacement growth is occurring. In Salem, as an example, the median resident age is 41.8, as opposed to the median in Connecticut which is 39.2, or in the US, which is 36.8. Of greater consequence in Salem is that the percentage of the population that is beyond age 45 has grown from 33% in 2000 to 45.2% in 2010. It is increasingly certain that as the baby boom bubble moves through the population in New England, there will be increasingly fewer able bodied individuals who can perform firefighting duties in the general population. Combine this fact with a nationwide decline in volunteerism, increasing training demands, time commitments required of firefighters, and limitations on

individual availability resulting from dual career households, the long-term prospects for sustaining a viable volunteer based fire/rescue system for the Town over the next 25 years are questionable at best. In our view, it would behoove Town Officials to initiate discussions with neighboring communities to begin exploring a regional, collaborative approach to providing for fire/rescue needs down the road. There are lots of good examples and model structures to consider; however, since change is generally slow and cumbersome (especially so in New England), planting the seeds early may contribute to long-term success.

This report will concentrate on the following fourteen focus areas. These areas will also serve as task groups which serve as a foundation for action and are mentioned later in the body of this report:

I. Police Services and Law Enforcement
II. Emergency Management
III. Code Compliance, Fire Prevention, and the Fire Marshal
IV. Fire Services

a) Organizational Structure
b) Fire Rescue Operations
c) Emergency Medical Services
d) Recruitment and retention of personnel
e) Deployment and response
f) Fire Apparatus, facilities, and Capital Planning
g) Firefighter Health and Safety
h) Training

V. Town of Salem Resident Survey
VI. Salem Volunteer Fire Company Survey
VII. Gardner Lake Volunteer Fire Company Survey

Municipal Resources

Top Five Challenges for the Town of Salem

1. *Deciding upon an acceptable level of risk, service, and response.*

2. *Resolving cultural differences that exist between the two fire service agencies and developing enhanced teamwork and coordination including, ultimately, the consolidation of SVFC and GLVFC into a single organization under the direction of the Town.*

3. *Strengthening the emergency management function and resolving the role conflicts that currently exist.*

4. *Purchasing apparatus based on community need rather than a sense of fairness or internal competition.*

5. *Development of a single management and leadership position for Fire/Rescue services in the community as soon as possible.*

Municipal Resources

Our Top Recommendations

1. *II.1* *The Emergency Management Director should not have other responsibilities that preclude him/her from being available to the Town for all disasters and at other times as required to perform the duties. If the current level of availability to the Town of Salem cannot be improved, a new Emergency Manager should be appointed.*

2. *IV.A2* *A single Municipal Fire Chief should be vested with command authority over all fire/rescue operations as soon as possible, and within 36 months, a full-time, professionally trained Fire Chief should be selected through an open competitive process. This position should have full administrative and operational control of fire services within the Town of Salem and report directly to the Town.*

3. *IV.A4* *The two Departments need to function as a cohesive unit operationally, and as a first step, all training should be joint training.*

4. *IV.B1* *A gap analysis of current Standard Operating Guidelines should be undertaken with a goal of establishing one comprehensive set of Policies and Standard Operating Guidelines. These documents should be crafted by the Fire Chief in consultation with a joint committee composed from members in both Departments. Once completed, all volunteers should be required to become familiar with them and this operational guidance should apply to both Departments without exception.*

5. *IV.G8* *Future purchases of apparatus should be based upon overall community protection needs based upon the ideal set identified through this study.*

6. *All recommendations throughout this report should be viewed in the context of the ultimate need for creation of a single municipal fire department*

COMMUNITY BACKGROUND AND DEMOGRAPHICS

The Town of Salem, Connecticut, located in southeastern Connecticut, was incorporated as a town in 1819. Today, it is a small suburban town with a stable population of around 4,200 residents, and a total land area of 29.8 square miles. The Town is semi-rural and is located 29 miles southeast of Hartford, Connecticut, and 87 miles southwest of Boston, Massachusetts.

DEMOGRAPHICS

Although the Town experienced growth approaching 10% in the late 20th and early 21st centuries, the current and projected growth is relatively flat.

POPULATION CHANGE

Year	Population	% Increase	Density
2025	4,311	0%	145
2020	4,291	1%	144
2015	4,242	2%	142
2014	4,151	0%	139
2010	4,151	8%	139
2000	3,858	--	129

Table 1 - Source University of Connecticut Data Center, Actual data 2000-2014, estimated data 2015 - 2025

Salem has a population density of 145 residents per square mile, which is slightly over one-third that of New London County at 412 residents per square mile, and one-fifth of the state's density of 741 residents per square mile.

The following tables provide the age and income distributions of the Town and compares them with the county and state as a whole.

Municipal Resources

POPULATION AGE DISTRIBUTION

	Town of Salem			New London County	
Age	Number	%		Number	%
< 5	233	6%		15,032	6%
5 - 17	780	19%		44,780	16%
18 - 24	275	7%		26,737	10%
25 - 49	1,377	33%		92,272	34%
50 - 64	1,049	25%		55,872	20%
65 +	404	10%		38,198	14%

Table 2 - Town Profile 2013 - Source: Connecticut Economic Resource Center

INCOME RELATIVE TO STATE INCOME

Region	Median Household Income	Relative to State Median	Median Family Income	Relative to State Median	Per Capita Income	Relative to State Average
Connecticut	$69,243	100%	$86,395	100%	$37,624	100%
New London County	$67,010	97%	$82,685	96%	$33,478	89%
Salem	$97,424	141%	$110,208	128%	$43,069	114%

Table 3 - Source Connecticut Department of Community and Economic Development, ACS 2011 Data

The demographics of Salem are indicative of an affluent rural community with population distributions that roughly mirror those of the State of Connecticut, with slightly more middle aged folks and less senior citizens. The income levels within Salem are significantly higher than both New London County and the State of Connecticut as a whole.

ECONOMIC DEVELOPMENT

The Town of Salem has no significant industry or businesses. In 2012, the Connecticut Department of Community and Economic Development listed a total of 612 people employed in Salem, with the majority falling into retail trade, food service, and government employment. The top five major employers in town are Salem Country Gardens, Burnett's Landscaping, Phillips Construction, Coastal Steel Corporation, and the Town of Salem.

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QUALITY OF LIFE

Salem's population density of less than 140 people per square mile, and the large minimum lot sizes, combines to create a very rural feel for the community. There are several campgrounds in Town that significantly increase the summertime population. In addition, the traffic on Routes 11, 82, and 85 are often congested during commuter periods making in-town travel difficult.

GOVERNMENT

The Town of Salem is governed by a Town Meeting and Board of Selectmen form of government. The Town Meeting is the legislative body of the Town and the Board of Selectmen is responsible for the administration of Town policies. The authority of Town officials is granted by Connecticut General Statutes and further prescribed in the Town Charter as adopted by the Town in 2004. Various Boards and Commissions are composed of elected and appointed officials who supervise, manage, and organize the diverse functions of local government.

EDUCATION

The Salem School serves students in Pre-Kindergarten through Grade-8. Students entering high school have the choice of East Lyme High School or one of several technical high schools in the area. Based on the data in the Strategic School Profile for 2011-12, enrollment for the five-year period is declining by slightly over 16%. Based on the town's CERC profile from 2013, 78% of the town's population over the age of 25 has obtained at least a high school diploma, as compared to 88.6% for the State of Connecticut as a whole; residents with a Bachelor's Degree or more is 43%, as compared to the statewide rate of 36%.

SYNOPSIS OF RECOMMENDATIONS

We have listed all of the recommendations that have been listed in the body of the report by section in the following pages. Please note that these recommendations include both observations and informed opinions of the public safety system in Salem as well as industry best practices; some elements of which may be in various stages of adoption or implementation.

I. Police Services and Law Enforcement

There are no recommendations within this Chapter.

II. Emergency Management

II.1 Ideally, the Emergency Management Director should not have other responsibilities that preclude him/her from being generally available to the Town for most disasters, regardless of the season and at other times as required to perform the duties. If the current level of availability to the Town of Salem cannot be improved, consideration should be given to appointing a new Emergency Manager.

II.2 The Emergency Management Committee should continue to include liaisons from the Salem Volunteer Fire Company and the Gardner Lake Volunteer Fire Company.

II.3 The Town of Salem should continue to update their Emergency Operations Plan to continually meet the needs of the community.

II.4 The Emergency Manager must train both Departments relative to specific actions, roles, and responsibilities in the event of natural and man-made disasters.

II.5 The Emergency Manager should develop a brief action oriented plan for how each Department would fit into a larger regional operation in the event of a large natural or man-made disaster.

II.6 Both Departments, along with the DPW, Law Enforcement personnel, and the Selectmen, should participate in two exercises hosted by Emergency Management on an annual basis; one should be a tabletop exercise, and the second a practical exercise which should shift from local to regional focus over three years.

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III. Code Compliance, Fire Prevention, and the Fire Marshal

III.1 A single program of public education for the young and the elderly should be developed and administered by the Fire Marshal. Members of both Departments should participate in this program.

III.2 The Fire Marshal should meet regularly with the two fire chiefs to discuss issues around fire protection within the community, with particular emphasis on the preplanning of target hazards.

IV. Fire Services

A. Organizational Structure

IV.A1 Both the SVFC and the GLVFC should immediately alter their bylaws to accommodate the single operating unit model under the direction and authority of one Fire Chief appointed by the Town.

IV.A2 A single Fire Chief for the Community, vested with command authority over all fire/rescue operations, should be appointed as soon as possible and full consolidation should be targeted to occur within 36 months, after which a full-time, professionally trained Fire Chief should be selected through an open competitive process. This position should have full administrative and operational control of fire services within the Town of Salem and report directly to the Town Selectmen.

IV.A3 Until full consolidation is achieved, the position of Assistant Fire Chief should be created to replace the current position of Fire Chief in the SVFC and GLVFC, and these positions will retain responsibility for their respective stations. These positions should be reviewed twice per year by the Fire Chief.

IV.A4 The two Departments need to function as a cohesive unit and move closer together operationally, and as a first step methodology to accomplish this goal, all training should be joint training

IV.A5 In the spring of 2015, and annually thereafter, the Town of Salem should apply for a SAFER grant in an effort to obtain

federal funding to offset the expense of a limited presence of career staffing during critical coverage periods.

IV.B Fire/Rescue Operations

IV.B1 One set of Policies and Standard Operating Guidelines (SOGs) should be crafted by a joint committee composed from members in both Departments. Once completed, this operational guidance should apply to both Departments without exception.

IV.B2 Mutual aid districts and automatic alarm assignments should be strengthened.

IV.B3 The use of a more delegated approach to incident command should be obtained through training and a series of joint exercises.

IV.B4 Formal preplans, including mapping and a hazardous materials inventory, should be developed for all commercial and industrial properties. This information should be shared with dispatch, and a policy should be developed indicating specific information that should be broadcast during a response.

IV.B5 Primary and secondary water supply points should be designated for each address. This information should be stored in the computer-aided database and broadcast to responding units at the start of a fire incident response.

IV.B6 Dispatch should announce and confirm which water supply point will be utilized during a given incident.

IV.B7 All personnel should be trained on the Occupational Safety and Health Administration Standard pertaining to initial fireground operations. All personnel should endeavor to adhere to this "Two In/Two Out" standard with few exceptions.

IV.B8 All personnel should be trained on the National Fire Incident Management System, and the use of incident command should be strengthened and expanded.

IV.B9 Personnel should be alerted through a combination of radio pagers and secondary smartphone notification software such as Second Signal or E-dispatches.

IV.C Emergency Medical Services (EMS)

IV.C1 Continue to maintain the town's HEARTSafe Community designation by ensuring a strong system of semi-automatic defibrillator equipped first responders. Based on American Heart Association Guidelines, it should be the Town's goal to have a first responder on the scene within six (6) minutes.

IV.C2 When the current ambulance is replaced, it should be retained as a mechanical backup.

IV.C3 Relocate the ambulance and the career firefighter /EMT currently stationed at Gardner Lake during the daytime shift to the Salem station to provide more adequate and safe staff coverage and overall enhanced deployment to the entire community.

IV.D Fiscal Analysis

IV.D1 The allocation of resources must reflect the needs of the community as a whole. Given the two existing departments, careful thought should be given to purchasing apparatus that provides for coordinated, complimentary services, not exclusive service.

IV.E Recruitment and Retention of Personnel

IV.E1 There needs to be a conscious and strategic recruitment and retention program jointly operated by both Departments. There should be an active recruitment program that seeks out and markets the Departments to prospective members.

IV.E2 The process of bringing a member on the Department should follow a written plan in an effort to be consistent and should be timely. Once a member is brought on and begins to progress through a training program, there should be a Department orientation which reviews policies, procedures, and expectations, and provides general information. In addition, the Departments should develop a mentoring program that assigns a senior firefighter to be a mentor for the new person.

IV.E3 A SAFER Grant for the recruitment and retention of volunteer personnel should be pursued in 2016.

IV.E 4 The Fire Chief should assign one of the full-time members to manage and develop recruitment and retention efforts.

IV.F Deployment and Response of Personnel

IV.F1 Each member should have a copy of the Department's Policies, Procedures, and Standard Operating Guidelines.

IV.F2 As a goal, operations should be in conformance with the OSHA Two-in / Two-out rule.

IV.G Fire Apparatus and Capital Planning

IV.G1 The current ambulance should be retained as a mechanical backup when the next ambulance is purchased.

IV.G2 Based on the decreasing frequency and severity of brush fires, the two existing brush units should be replaced with a single unit.

IV.G3 Automatic mutual aid for water supply should be strengthened.

IV.G4 Tanker 127 was found to be serviceable in 2012. Based on the recent safety upgrades, this should be monitored for safety and disposed of at the end of its serviceable life span.

IV.G5 In 2022, a larger capacity engine/tanker should replace Tanker 127 and ET127.

IV.G6 The purchase of a new rescue boat should be re-evaluated based on need and call volume.

IV.G7 The Town should provide the SVFC and the GLVFC the materials to develop a joint training site over a three-year period. The Town should own this training facility.

IV.G8 Future purchases should consolidate apparatus to the level of the ideal apparatus set identified through this study.

IV.G9 The Town should provide the SVFC the materials to construct a permanent storage building for fire service and emergency management operations.

IV.G10 The Town should install a diesel exhaust system in the Salem station if it is to function as the primary facility, and in both stations if consolidation is not pursued.

IV.G11 The Town should install high traction epoxy flooring in the apparatus bays of both stations.

IV.H Fire Service Facilities

IV.H1 An agreement for the Town to acquire and operate the GLVFC station as part of an integrated municipal Fire/Rescue operation should be completed to provide the Town all rights and responsibilities of ownership and operation. No further equipment should be purchased for the GLVFC until the transaction has been completed and a plan for apparatus deployment based upon overall responsiveness to community needs has been developed.

IV.H2 In the very long run, planning for development of any future facilities should be undertaken in the context of expected growth and associated response times in concert with surrounding communities.

IV.I Firefighter Health and Safety

IV.I1 Both Departments should be trained in and follow the OSHA Two-in/Two-out rule. Unless four personnel are on the scene, no interior operations should commence, unless a visible rescue situation exists.

IV.I2 An Accountability Officer needs to be assigned to track personnel from both stations. This is an essential role, especially considering the response of personnel directly to the scene.

IV.I3 Review combined policies or Standard Operating Guidelines at each training meeting.

IV.I4 All personnel should be assigned portable radios with an internal emergency notification feature that can be identified to the specific firefighter at the Dispatch Center.

IV.I5 All personnel should be trained to the Firefighter I/II (NFPA 1001/1002) level prior to permitting them to be utilized for any interior operations.

IV.I6 A new gear dryer should be pursued through the operational budget or through a FireAct health and safety grant at the SVFC.

IV.I7 Assign the ambulance and both day-time firefighters to the Central Station during the daytime coverage hours, and have them respond in the same vehicle as appropriate for the call.

IV.J Training and Development

IV.J1 Develop a formal joint training program that is documented with lesson plans and attendance rosters.

IV.J2 Finalize and post a training schedule on-line and in both stations.

IV.J3 Develop individual training files, or a computer database, that can document and track training and certification of personnel.

IV.J4 All personnel should be encouraged to obtain fire service certifications offered through the Connecticut Fire Academy and/or the National Fire Academy.

IV.J5 Fire Officer I certification should be required either as a condition of, or within twelve months of, promotion.

IV.J6 National Incident Management System (NIMS) training should be delivered to all personnel, and the expanded use of incident command should be practiced in conjunction with every practical training session.

IV.J7 Appoint a Training Officer to develop an enhanced and coordinated training effort between the two stations.

IV.J8 There should be at least three monthly training sessions, two focused on fire service training and one devoted to specialized training.

IV.J9 All training sessions should be conducted jointly with personnel attending from both stations. The location of training should be rotated so all personnel become familiar with all of the Town's equipment and facilities.

IV.J10 An internal officer orientation should be provided to each newly appointed officer.

V. Town of Salem Resident Survey

There are no recommendations within this Chapter.

VI. Salem Volunteer Fire Company Survey

There are no recommendations within this Chapter.

VII. Gardner Lake Volunteer Fire Company Survey

There are no recommendations within this Chapter.

GLOSSARY OF TERMS

Access Time: The time required climbing stairs, entering buildings, and locating the exact site of the emergency. The size of the building dictates the length of the access time.

Accountability System: A system used on the fireground or incident scene to methodically track the location of personnel operating at that location.

ALS – Advanced Life Support: Refers to pre-hospital interventions that can be brought into the field by paramedics. Typically, this service level includes the ability to bring much of the emergency room capability to the patient. Paramedics can administer intravenous fluids, manage a patient's airway, provide drug therapy, utilize the full capabilities of a 12 lead cardiac monitor, and provide a vital communication link to the medical control physician who can provide specific medical direction based on the situation.

BLS – Basic Life Support: Refers to pre-hospital interventions that can be brought into the field by basic level emergency medical technicians (EMTS). This would include semi-automatic cardiac defibrillation, oxygen administration, patient assessment, and stabilization.

CAAS: Commission on the Accreditation of Ambulance Services.

Calendar Year: The twelve-month period from January to December within a given year.

Capital Project: A project with a cost that exceeds $10,000 and the asset being procured has a life span of at least five years.

Cross Staffing: A fire service practice of assigning personnel to multiple emergency response vehicles. As an example, these personnel may staff both an ambulance and an engine. They would respond to whichever call comes in first; if it was a fire call, the engine would respond and the ambulance would then be placed out of service until the fire call was concluded. Although a common practice service is provided on a first come first serve basis as a risk management strategy.

Dispatch Time: The time to solicit data from the caller, determine the units to send, and dispatch the units to the emergency. This is usually done via radio transmissions.

EMD: Emergency Medical Dispatch, a systematic program of classifying emergency medical calls by severity and providing callers with pre-arrival instruction.

EMS: Transport based emergency medical services which often include the ability to deliver advanced life support.

EMS Revenue: The income generated primarily from insurance companies for providing transport based emergency medical services to the community.

EOC: This refers to an emergency operations center which is the center of a community's coordinated response and mitigation efforts during a disaster or significant event.

FireAct Grant: The annual competitive grant program administered by the Federal Emergency Management Agency. This program provides funding for emergency response vehicles, safety equipment, training, minor fire station renovations, and the development of regional activities.

Fiscal Year (FY): The 12-month period from July to June within a given year. Most municipal budgets are based upon a fiscal year, rather than a calendar year.

GLVFC: The Gardner Lake Volunteer Fire Company, this organization provides fire protection to a portion of Salem, Connecticut.

ICMA: The International City/County Management Association

Incident: An event requiring the response of fire service resources.

Incident Volume: The total of fire suppression and emergency medical response demand for a given period of time.

Industrial/residential mix: The percentage of industrial or commercial property compared to the number of residential dwellings in a community.

IOD: Injured on duty status. This is a status provided to firefighters injured in the line of duty.

ISO: Insurance Services Office fire protection rating schedule. This is a number ranging from 1-10 that provides a perspective on the fire protection capabilities of an organization. One is the best possible score, while 10 indicates no substantive protection exists.

Long-term Absence: An absence from a scheduled shift for a period of more than two weeks.

Medicare Rate: The rate that Medicare will pay for emergency medical interventions and transportation. This is typically well below the market rate and has become a standard foundation to base ambulance service rates upon.

NFPA: The National Fire Protection Association is an international organization that develops professional consensus based standards for the fire service. This organization is based in Quincy, Massachusetts.

NFPA 1500 – The NFPA Standard on Fire Department Occupational Safety and Health Programs.

NPFA 1720: The NPFA Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments.

NFIRS: The National Fire Incident Reporting System.

Officer: A first line supervisor (Lieutenant) or shift Commander (Captain).

OSHA: The Occupational Safety and Health Administration

Quint: A piece of fire apparatus that is outfitted as a pumper, but also has a junior aerial ladder, typically 75-85 feet. This concept allows the rapid deployment of a unit that can quickly effect rescue and produce the best possible firefighter safety.

Response Time: The time elapsed from when an emergency call is received until fire emergency responders arrive on the scene of an event. Typically, this includes both dispatch process and turnout time.

SAFER: The Federal Staffing for Adequate Fire and Emergency Response grant program.

Set-up Time: The time needed to place the actual operation into play, including placing apparatus and equipment, deploying hose lines, and initiating search and rescue procedures.

Shift Float: The difference between the number of personnel assigned to a work group, less the number of personnel required to maintain the minimum operational shift strength selected.

SVFC: The Salem Volunteer Fire Company, this organization provides fire protection to a portion of Salem, Connecticut.

Target Hazard: A structure that based on occupancy, construction, or location creates a higher than average fire protection risk to the community. Examples of target hazards are nursing homes, hospitals, corrections facilities, large commercial complexes, industrial facilities, and facilities that utilize hazardous materials.

Technical Rescue: Special rescue operations requiring unique training and equipment. Examples of technical rescue operations are trench and building collapse.

Travel Time: The actual time it takes the emergency equipment to travel from the fire station to the incident scene (wheel start to wheel stop). This time is usually measured in all emergency calls.

Turnout Time: The time from when the fire department is alerted to respond to an incident until the responding unit leaves the fire facility. Typically, this is approximately 90 seconds.

Two In/Two Out: The OSHA rule (CFR1910.134) relative to appropriate respiratory protection and commencing safe operations on the fireground.

PURPOSE, SCOPE, AND METHODOLOGY

Municipal Resources, Inc. (MRI) was engaged by the Town of Salem, Connecticut, to review the public safety service delivery operations with an eye towards how the Town may best address the organizational and operational needs associated with provision of essential public safety services to the community in the coming years. We have prepared a report that provides an analysis of the delivery of emergency services and provides specific recommendations that will assist the Town to set a clear course of action for the future.

To that end, members of the study team held an initial orientation meeting with the First Selectmen and the Chiefs of the two fire departments in Salem; Salem Volunteer Fire Company (SVFC), and the Gardner Lake Volunteer Fire Company (GLVFC). Subsequent meetings were held with the officers of the SVFC, the Board of Directors for the GLVFC, as well as the town's Fire Marshal, EOC Coordinator, and past First Selectmen.

Each of these groups provided significant statistical information and data on their operations. An on-line survey was made available to members of the two fire departments, as well as town residents, to discuss how they felt about their organization and the services that they provide.

Specific areas of investigation included:

- Chain of command;
- Command structure;
- Communications and data processing functions;
- Compliance with various National Standards and Federal regulations;
- Internal discipline;
- Internal regulations, facilities and equipment;
- Promotion;
- Recruitment;
- Response of personnel;
- Response times, service demand;
- Responsiveness to the Town of Salem;
- Retention;
- The relationship and operational efficiency that exists between the two Departments; and
- Training.

Our Objectives

- To help municipalities and agencies obtain maximum value for limited tax dollars;
- To raise public awareness of the value and professionalism of their municipal resources; and
- To help local leaders develop and execute plans that best meet their community's current and future needs, given available resources.

Scope of Work

MRI will conduct a review of public safety service delivery operations with an eye towards how the Town may best address the organizational and operational needs associated with provision of essential public safety services to the community in the coming years.

Currently fire and rescue coverage is provided by two volunteer fire departments and EMS is provided by one of two companies:

1. The Gardner Lake Volunteer Fire Company, located on the eastern side of the Town, and provides Fire/Rescue and EMS response and medical transport;
2. The Salem Volunteer Fire Company, located on the western side of the Town, and provides Fire/Rescue and non-transport EMS response.

Each of the two organizations has independent facilities, equipment, organizational structures, and community identity, and is led by a Fire Chief, and is manned by various officers and volunteers.

Law Enforcement service is provided by a State Trooper in residence.

Code Compliance & Building Inspection service is provided by part-time Building Official.

Emergency Management/Preparedness efforts are provided under the auspices of an Emergency Management Committee that meets monthly.

MRI proposes to review the manner in which all public safety and emergency response services are provided within the Town and will then make recommendations for improvements that take into consideration best practices and trends in the industry, as well as the current and future financial ability of the Town. We will address potential

modifications to the delivery systems to optimize response times and service to the entire Town, evaluate current facility locations and equipment, and evaluate the need for expansion of the physical facilities and acquisition of new or replacement equipment.

MRI will critique and evaluate whether the current organizational structures are appropriate and sustainable for the long-term, explore whether a more regional or collaborative approaches to emergency service organization and delivery will likely be viable, and in the community's long-term interest. All recommendations for improvements will be based on ISO (Insurance Services Office), NFPA (National Fire Protection Association), CFAI (Commission on Fire Accreditation International), CAAS (Commission on Accreditation of Ambulance Services), CALEA (Commission on Accreditation of Law Enforcement Agencies), and other nationally accepted standards, and administrative regulations as appropriate.

During the course of our work, focus will be placed on the following:

1. Determination of the adequacy of existing facilities, apparatus, and equipment to support town-wide public safety services, and provide a cost projection associated with any alternative approaches suggested.

2. Identification and listing of any current deficiencies as they relate to any of the current service structures or operational approaches to delivery of public safety services.

3. Determination of the effect that greater collaboration, consolidation, and/or regionalization might have on the staffing requirements and volunteer levels within the Town.

4. Determination as to whether the present structures can/should remain the same, or whether a different combination of volunteer and expanded full-time paid staff is necessary. We will address associated costs and operating impacts of any suggested alternative directions.

5. Outline the procedures necessary to consolidate public safety services into a Town-wide public safety system and/or into a regional structure, if such a direction seems viable in the future. We will address legal requirements, division of assets, debt service, equipment, and personnel; timeline; and any other pertinent factors to be considered.

6. Address current response times and service demand levels throughout the Town, and project how response times and service levels might be impacted if the Town converts to a more centralized Town-wide response approach or a regional delivery system.

7. Address the impact consolidation/regionalization would have on operational and administrative reporting requirements and such services as safety inspections, review of building plans for compliance to codes, and issuing permits. MRI will determine the additional personnel resources, if any, that would be required with a consolidation of the two departments.

8. Define the staffing, equipment, building needs, and associated costs for a Salem Public Safety Department serving the Town of Salem with its current and projected population mix (commercial, residential, and transient).

9. Project the required resource/asset allocation (facilities, apparatus, and personnel) which will be needed to provide at least the same level of public safety service as the residents of Salem currently receive.

10. MRI will provide cost data and response time analysis to support its recommendations.

11. Identify any grants that might be available for building, equipment, and personnel.

In order to conduct the study, MRI will interview officials, employees, and individuals of the departments to gain an understanding of the issues facing the departments and the municipality, and to better understand the practices and procedures the precincts use to provide services to the Town.

MRI will review the following documents and data:

i. Relevant municipal bylaws, policies, documents, and plans.

ii. Municipal budget, audit, financial reports, and documents.

iii. All relevant department policies, plans, response strategies, training programs and requirements, and standard operating guidelines.

iv. All relevant documents, incident logs, and reports associated with current service delivery approaches. Requests for information from the Communications Center including incident frequency, response times, and recording of operational radio traffic shall be directed through a single person to be identified by the Town.

MRI will develop a draft report. The purpose of this draft is to allow key stakeholders the opportunity to review the document for accuracy, clarity, and facilitate a brief comment period. After receiving the comments and advice of the appropriate local

officials, MRI will prepare and deliver one (1) original final report, together with one (1) copy of the report in PDF format on disk.

The final report will be presented at a place and time to be determined by the Board of Selectmen. The presentation of the report will include support documentation and be presented in a manner that will enhance the assimilation of the material by the audience.

Methodology

There were fourteen major work elements involved in this review. These are:

1. A review of compiled data regarding key fiscal and operational aspects of the community and the two fire service organizations;

2. An overview of response protocols and Standard Operating Guidelines (SOGs) of the two departments;

3. An overview of training and the operational integration of the two departments;

4. A thorough tour of the community to gain a sense of the physical environment, the primary fire and life safety risk exposures and the location of population and commercial centers in relation to existing facilities;

5. A target hazard analysis based on the unique tourist and seasonal aspects present within the Town of Salem;

6. Interviews with key individuals including the following:

    - First Selectmen
    - Former First Selectmen
    - Fire Chiefs from both Departments
    - Officers of the SVFC
    - The Board of Directors from the GLVFC
    - The Fire Marshal
    - The Salem EOC Coordinator

7. Literature review and Internet based research;

8. A review of facilities and equipment;

9. A review of incident command procedures and operations at two significant incidents;

10. Delivery of a fire service related resident survey;

11. Delivery of an online survey for the stakeholders within each fire service organization;

12. A review of the resident trooper program;

13. A review of the services provided by the Fire Marshal;

14. A review of the services provided by the EOC Coordinator.

Following the on-site visits, the data collected and observations made were subjected to analysis by the Project Team, individually and collectively, and compared with contemporary public safety practices, in order to formulate the recommendations contained in this report.

We would be remiss in not thanking all of the people of the Town of Salem government, from the First Selectman, the Fire Marshal and EOC Coordinator, staff of the Town, the entire staff of the Salem Volunteer Fire and Gardner Lake Volunteer Fire Companies, for being most cooperative and helpful in assisting us to carry out this work.

THE STUDY TEAM

The following MRI personnel participated in the study:

Vice President of Operations:

Alan S. Gould is a graduate of Saint Anselm College with a BS degree in Criminal Justice. He is certified as a Public Manager by the American Academy of Certified Public Managers and has completed numerous management and leadership programs including the Babson Command Training Institute and the FBI's LEEDS program. He is recognized for his creativity in community policing and his leadership in promoting ethics in the law enforcement community. Mr. Gould began his public sector career with the Salem, NH, Police Department where, during 21 years, he served in all ranks including Chief of Police. He served as Chief of Police in Rye New Hampshire, where, upon retirement from law enforcement, he was appointed and served as Town Administrator until joining MRI in 2008. Mr. Gould served as the Ethics Instructor at the New Hampshire Police Academy for 15 years and has been an instructor of college courses in Criminal Code, Criminal Investigation, Report Writing, Constitutional Law, and Juvenile Delinquency. Among his many community involvements, Alan served as an initial incorporator of the Greater Salem Council Against Family Violence; a founder

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of New Hampshire's second "visitation center" designed to protect children from abusive parents; an initiator of Rye Senior SERVE, a non-profit organization established to help seniors remain in their homes as they age; and he continues as the Emergency Management Director in his home town of Rye, New Hampshire.

Project Manager:

Brian P. Duggan now commands the Fire Department in the City of Northampton, Massachusetts, where he has instituted substantial changes to modernize the entire department including equipment, facilities, personnel, training and organizational structure. He formerly commanded the Northborough, Massachusetts Fire Department, and has significant experience with the Massachusetts Department of Fire Services where he held several key positions. He also developed and directed the Graduate and Undergraduate Fire Science Programs at Anna Maria College in Paxton, Massachusetts, from 1995 - 2003. Chief Duggan has a Business Management/Fire Science degree from Providence College and a Master's Degree of Business Administration (MBA) from Nichols College in Dudley, Massachusetts. He is also a graduate of the National Fire Academy's Executive Fire Officer Program, and is one of only a few fire service professionals to be designated as a Chief Fire Officer by the Commission on Fire Accreditation International. Chief Duggan also leads the Massachusetts fire service through his affiliation as Chairman of the Fire Chief Association of Massachusetts Technology Committee and as a Regional Director on the Massachusetts State Fire Mobilization Committee. In addition, he has authored several publications inclusive of writing Section 7, Chapter 3, "*Fire Department Information Systems*" in the Nineteenth Edition of the National Fire Protection Association's Fire Protection Handbook.

Project Lead:

Edmund M. Walker began his fire service career over 30 years ago while a student at the University of Maine Orono on their volunteer fire department. Upon graduation, Mr. Walker began his career with the Weston, MA fire department where he was appointed chief of department in 2002. As the chief, Mr. Walker managed the operation of the department's BLS ambulance service and served as the town's emergency management director. In 2007, Mr. Walker took the position as director of the Massachusetts Firefighting Academy, the training division within the Massachusetts Department of Fire Services (DFS), where he brought fresh ideas and innovation to the division including the incorporation of national certification into the Call/Volunteer Firefighter Training Program and the Chief Fire Officer Management Training Program. In addition, Massachusetts is now a national leader in fire service professional development through the collaboration between the fire academy and higher education across the Commonwealth under the United States Fire Administration's Fire and Emergency Services Higher Education (FESHE) program. As a member of DFS

management team Mr. Walker served in a lead role at the State Emergency Operations Center for a number of disasters including several Presidential Disaster Declarations. Mr. Walker holds bachelor's degrees in Psychology (University of Maine Orono) and Fire and Life Safety Engineering Technology (University of Cincinnati) as well as an MBA and graduate certificate in Geographic Information Systems from Northeastern University. Currently he is enrolled in the Masters of Science program in Business Continuity, Security and Risk Management at Boston University.

MRI Associate:

Raymond Gretz is a Battalion Fire Chief in Washington, D.C. He became a volunteer firefighter EMT in 1990 at the College Park Volunteer Fire Department in College Park Maryland. His volunteer service included serving as a line officer to the rank of Captain and being an elected member of the Board of Directors. Ray has considerable experience in operations as well as training, special operations and a variety of administrative positions. Other experience includes serving as the agency Finance Section Chief for National Security Special Events such as Presidential Inaugurations. He is a certified public manager and a graduate of the National Fire Academy's Executive Fire Officer Program. He also holds a Master's Degree in Homeland Security from the Naval Postgraduate School in Monterey California.

PUBLIC SAFETY DISCUSSION & RECOMMENDATIONS

As we developed the report we produced a series of 61 recommendations that are detailed in the following pages.

Recommendations shaded in gray have been listed earlier in the document and are duplicated for the purpose of reference.

I. POLICE SERVICES

The Town of Salem does not have a police department, but instead, Police services are provided by a contract with the Connecticut State Police "Resident Trooper" program. This contract provides for two state troopers to be assigned to the town as its 'police force' on a continual basis much the same way a town would be provided with police coverage by its own police department of two officers. In Salem's case, the senior trooper, of the two assigned to Salem, has been assigned to Salem for the last 20 years. The contract requires the replacement of the assigned resident trooper, by another trooper if the resident trooper will be absent for more than 2 weeks. The cost of this service is approximately $200,000 per year, with the town providing office space for the troopers. Technically, the First Selectman of the Town is the Police Chief, although he is not a sworn officer, he provides the resident troopers with direction relative to priorities in law enforcement.

The two troopers assigned to Salem work day shifts and evening shifts. Calls for police service that are received when neither trooper is "on duty" are handled by a patrol trooper assigned to Troop K in Colchester. The Troop K patrol troopers also provide back-up to the resident trooper on duty when necessitated by call type. Police calls are handled by State Police Dispatch. It is estimated that the response time to emergency calls is about 4 minutes. The workload of the resident trooper is generally what would be expected of a more traditional "town police officer" with approximately 80% of a shift spent on patrol and the remaining 20% handling administrative matters. All arrests are processed at Troop K in Colchester and prisoners requiring overnight detention are transferred to the Department of Corrections.

Although statistics for calls for service by time day and day of week were not available from the Connecticut State Police, in 2013 the Salem Resident Troopers reported 2,529 calls for service, of which 976 were self-initiated. Self-initiated calls generally represent motor vehicle stops (in 2013, 520 motor vehicle citations and 127 warnings) or other activities that were not initiated through phone or radio calls, but rather by the troopers themselves. The type of incidents listed on the report we reviewed was typical of what we would expect of a community such as Salem.

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Analysis

The use of the Connecticut State Police Resident Trooper Program for providing police services is an extremely efficient and effective way for the Town to provide police services to the community. The advantages of retaining a law enforcement presence in this format are numerous:

- Selection, hiring, retention, and all other human resource related responsibilities are handled by the Connecticut State Police.

- Retention - Communities the size of Salem are generally considered the training grounds of young officers that want to get certified and then move on to a larger, higher paying department. In this case, the Town is getting seasoned police officers and not subject to the expense of training and outfitting new personnel if/when an officer leaves the employ of the town.

- Training - The State Police are responsible with meeting training requirements and expenses related to training.

- Back-up/standby officers - Most communities of this size that maintain its own police department would, in addition to the several fulltime officers, need to maintain a number of part-time positions for sick/vacation/training vacancies. In the present situation with the Resident Trooper Program, these additional officers are covered within the contract for service.

- Negotiation- There is no need for the Town to be involved in negotiating wages or other benefits for employees.

- Cruisers/equipment - The Town does not have the expense of purchasing, outfitting, and maintaining a police fleet, or outfitting officers with expensive equipment such as firearms, uniforms, radios, and body armor.

- Benefits - Those costs normally borne by the employer for employee benefits, including health and disability insurance, FICA, retirement, and post-employment benefits, are not the responsibility of the Town.

- Training - The Town is not responsible for the training and professional development of employees.

- Liability/Risk - Through its contract with the Connecticut State Police, the Town of Salem bears less direct responsibility for issues of vicarious liability and negligent hiring/retention/supervision/training.

- Costs - We would expect a cost greater than $300,000 for a community the size of Salem to maintain a stand-alone police department. This includes all those areas mentioned previously in this report, as well as capital expenditures and administrative costs incurred by the Town to support the operation of a police department.

We believe the Town of Salem is receiving excellent police services from well-trained, veteran police officers, at a very reasonable cost. It is also important to note that the Resident Trooper Program has the advantage of accessing the full and immediate resources and specialized services available from the Connecticut State Police.

RECOMMENDATIONS

There are no recommendations in this section.

II. EMERGENCY MANAGEMENT

Emergency Management within the Town of Salem falls under the Emergency Management Director, who is appointed by the First Selectman and oversees the "Emergency Management Committee." Selected volunteers staff key positions in the Emergency Management organization for both preparatory and operational functions. The group is very active, meeting regularly to discuss emergency management issues that face the Town. The staff also trains on a regular basis and manages the Town's SARA Title III reporting and Hazardous Materials Plan.

When discussing the relationship between emergency management and the two (2) fire departments in Town, it became clear that there is limited cooperation and communication between the groups. Although both the director and deputy director feel that they are welcome to attend meetings of either department, they do not feel that there is consistent communication on what the needs of the departments are and how the emergency management committee could meet some of those needs.

One issue that was repeatedly brought up in the interviews was that both the current emergency management director and deputy director are full-time employees for a neighboring community, and are often not available to Salem when disaster strikes. This has led to the First Selectman, as the Chief Executive Officer, to step into the role.

A review of the Town of Salem Emergency Operations Plan indicated a well thought out and developed plan that addresses the critical needs of the community and the relationship with other organization at the local, state, and federal levels. There are several sections of the plan that make specific reference to the role of the Emergency Management Director in emergencies. Most of these roles require very active participation in the emergency operations center during activations and vary greatly from those of the Chief Executive Officer. We see the lack of availability of the Emergency Management Director or Deputy Director in times of disaster as a significant issue around emergency management in Salem that could negatively impact the Town's ability to effectively respond to and mitigate incidents. It is essential that the role conflict be resolved or a new Emergency Manager should be appointed.

RECOMMENDATIONS

II.1 Ideally, the Emergency Management Director should not have other responsibilities that preclude him/her from being available to the Town for all disasters and at other times as required to perform the duties. If the current level of availability to the Town of Salem cannot be improved, consideration should be given to appointing a new Emergency Management Director.

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II.2 The Emergency Management Committee should continue to include liaisons from the Salem Volunteer Fire Company and the Gardner Lake Volunteer Fire Company.

II.3 The Town of Salem should continue to update their Emergency Operations Plan to continually meet the needs of the community.

II.4 The Emergency Management Director must train both Departments relative to specific actions, roles, and responsibilities in the event of natural and man-made disasters.

II.5 The Emergency Management Director should develop a brief action oriented plan for how each Department would fit into a larger regional operation in the event of a large natural or man-made disaster.

II.6 Both Fire Departments should participate in two exercises hosted by Emergency Management on an annual basis; one should be a tabletop exercise and the second a practical exercise which should shift from a local to a regional focus over three years.

III. FIRE MARSHAL

The Town of Salem is served by a part-time Fire Marshal. Currently that individual also serves as the Emergency Management Director. The incumbent is also a former firefighter/fire chief and is well versed in the fire service. The position is responsible for the reporting of fire incidents to the state for inclusion in Connecticut's reporting to the National Fire Incident Reporting System. The office is open to the public two days a week and provides plan review, building permit approvals, and conducts between 50 and 75 inspections annually, as well as issuing 25 to 30 blasting permits. The position is responsible for the enforcement of the Fire Prevention Code and the Connecticut Fire Safety Code.

In our interviews with the Marshal and Deputy Marshal, both felt that they have a good working relationship with the fire departments; however, opportunities exist for the fire departments to work more closely with the office on fire prevention activities in their respective districts. There was also the feeling that not all fire department members have a clear understanding of the role of the Fire Marshal and how this position can help them to succeed. There was mention from both the fire departments and the fire marshal of little cooperation around building issues and the preplanning for emergency response.

Although the part-time status of the Fire Marshal is common in many communities, it can make it difficult for those that rely on the position when the person has outside commitments that preclude them from being available to the community. This can be particularly true with the response to fire scenes and other emergency activities.

RECOMMENDATIONS

III.1 A single program of public education for the young and the elderly should be developed and administered by the Fire Marshal. Members of both Departments should participate in this program.

III.2 The Fire Marshal should meet regularly with the two fire chiefs to discuss issues around fire protection within the community with particular emphasis on the preplanning of target hazards.

IV. FIRE SERVICES

The Salem Volunteer Fire Company (SVFC) and the Gardner Lake Volunteer Fire Company (GLVFC) provide fire protection to the Town. Each of these organizations serves a primary response district within the community. Although the SVFC has a larger district and provides primary response to the vast majority of the Town, the GLVFC operates emergency medical services within the community. Primary response coverage for the community can be further analyzed as detailed in the table below:

Fire Service Agency	Percentage of the Community Area	Percentage of Road Miles	Percentage of Residences	Business District
SVFC	75%	80%	66%	Yes
GLVFC	25%	20%	34%	No

These two organizations combine forces to deliver a reasonably high level of service to the Town of Salem. Given that the vast majority of coverage falls under the jurisdiction of the SVFC, the Chief of the SVFC should be recognized as the Fire Chief for the community and have command authority over all operations. However, given the wide disparity in terms of coverage, future resources will need to be judiciously allocated reflecting the coverage provided to the Town.

When we encounter a community served by multiple fire departments, we are often asked two questions:

1. Why is it necessary for the Town to have two fire departments?

2. Does the presence of two fire service organizations produce an unnecessary duplication of service?

Volunteer fire departments typically develop based on the need for enhanced fire protection in specific areas. Therefore, it is not uncommon to have more than one volunteer fire department in a community. In fact, we have seen communities with up to five separate departments.

The presence of multiple volunteer Departments tends to produce an abundance of equipment. This is the case in Salem as both Departments are well equipped and it is clear that both organizations take pride in their equipment. When compared to the national average, the community has approximately 25% more equipment than the average compliment of equipment in a community similar to Salem. Ideally, a single fire department should serve the community; however, recognizing the value that each agency has provided to the Town, the ultimate goal should be to harness this study and

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work toward one synchronized organization operating out of two deployment points. Creating the position of Municipal Fire Chief and placing the management and control of all fire/rescue operations under the Municipal Fire Chief's authority should be, in our view, a primary goal for accomplishment as soon as possible. The sooner the Town can ensure that there is a single structure established to administratively and operationally manage fire services for the Town, the better.

We found that these volunteer firefighters in Salem are dedicated to their respective Departments, have a genuine desire to help their neighbors, and serve the Town of Salem to the best of their ability. In this regard, these firefighters are truly the most valuable part of the Salem Fire Service. Utilizing our experience as a basis, we were pleased with the caliber of volunteer personnel and think that it is through their efforts that the Town has been well served for many years.

The real question facing the Town of Salem is: "what is an acceptable level of risk?"; every community selects a level of risk and provides resources to match the acceptable level of risk. Presently, Salem has assumed a level of risk that considers the capabilities of both volunteer fire companies. Based on the response to the resident survey, citizens are pleased with the current level of service provided. Consideration of station location, adding a third station, or providing more on-duty staff would increase cost, but reduce the level of risk. These actions would reduce response times and enhance the fire protection capability within the community. The level of risk translates into the resources provided for fire protection and emergency response. We believe that the current staffing model providing service from two stations with one firefighter on duty in each station during the daytime is a risky model and should be changed to having both responding from the Salem Station as soon as possible.

It must be noted that this section of the report recognizes that there are presently two independent fire services operating within Salem. In order to provide value for current and near term operations, this report provides details and recommendations for the present operation of the two organizations, steps that should be implemented immediately to enhance the present operations, as well as recommendations toward the full integration/consolidation of fire services into a single entity under the governance of the Town.

IV.A Organizational Structure

Each of the two Fire Departments operates independently and should be considered as quasi-municipal organizations. The rivalry that exists between the two Departments is driven by organizational culture; this rivalry is somewhat common when dealing with two fire service organizations serving one community. During interviews it was widely reported that the GLVFC often takes an aggressive posture and is at times uncooperative when dealing with the Town. An example that was cited was the GLVFC refusal to follow the lead of the SVFC and enter into a long-term agreement providing

the Town with the use of their facility. Failure to address this issue places the Town in a position of uncertainty and presents a huge management conundrum. In our view, the sooner the Town takes the appropriate steps to transform the two independent operations into a single municipal fire/rescue department, the better. The current dual structure is costly, inefficient, and results in less public and volunteer safety than a consolidated model.

Some departments have a friendly rivalry, while others have a deep-rooted sense of competition that pits one organization against another. In many cases this rivalry stops when the alarm sounds and competitive agencies work together effectively on the incident scene; in other instances, not so much.

In Salem, this rivalry has progressed to the extent that it impacts operations, but is subordinated by the desire to serve the Town. We would consider the cultural rivalry that exists to extend beyond a friendly sense of competition to a point that it produces a moderate impact on operations. As such, this rivalry has become a major focus of the organizational culture of the two Departments. The two Departments have not co-existed well for years, yet most probably can't remember why this rift began. We believe it is time that the Town takes definitive action to resolve this situation and move to a consolidated structure.

Having multiple fire departments serving one community, while commonplace in Connecticut and other areas of New England, is far too "personality driven" to be considered a truly viable model from a public management perspective and, in fact, for the majority of small communities in New England a multi-community approach similar to other parts of the United States where one regional fire department services an entire county is probably in the long-term future because of the decline in volunteers and the cost of fire/rescue apparatus.

Response time and operational ability during daytime weekday hours is a widely held concern. As volunteers have more demands placed on their time, the need to commute to other communities for employment, and less leisure time, a notable gap in coverage exists during these hours. According to the National Volunteer Fire Council, the number of volunteer firefighters has declined 13% since 1984, and that trend is expected to escalate as the first wave of baby boomers comes of retirement age. The challenge of finding and attracting replacement volunteers will be even more difficult for Salem and other Connecticut cities and towns (and most other New England states), since the percentage of aging adults is increasing much more rapidly than younger generation replacement growth is occurring. Despite the best efforts to recruit and retain personnel, generational changes, and the demands of employment, make this situation commonplace within both volunteer and combination departments.

In many departments career personnel are slowly introduced on a limited basis to cover this gap in resources. Salem has already addressed this issue through the controlled introduction of daytime career personnel to cover these gaps. As personnel carry an

on-going substantial cost, we recommend that the Town obtain the services of a grant writer to pursue a Federal SAFER grant in 2015. The Department can apply in two areas, acquisition of career personnel, and recruitment and retention of volunteer firefighters.

RECOMMENDATIONS

IV.A1 Over the next two years the SVFC and the GLVFC should alter their bylaws to recognize one Fire Chief appointed by the Town.

IV.A2 The Town should appoint a single Fire Chief for the Community and vest that person with command authority over all operations. Over the next 36 months, a full-time Fire Chief should be selected through a competitive process. This position should have full administrative and operational control of fire services within the Town of Salem and report directly to the Town Selectmen.

IV.A3 The position of Assistant Fire Chief should be created to replace the current position of Fire Chief in the SVFC and GLVFC, and these positions will retain responsibility for their respective stations. These positions should be reviewed twice per year by the Fire Chief.

IV.A4 The two Departments need to move closer together operationally, and as a methodology to accomplish this goal, all training should be joint training.

IV.A5 In the spring of 2015, and annually thereafter, the Town of Salem should apply for a SAFER grant in an effort to obtain federal funding to offset the expense of a minimal presence of career staffing.

IV.B Fire/Rescue Operations

The foundation of efficient operations can be found in training. However, if groups are to work together effectively they must not only receive the same training and practice operations, they must also be working from the same playbook. As such the standard operating policies were not found to be identical and many members commented on the operational confusion created by this lack of consistency.

Presently mutual aid is utilized on a regular basis. However, the consistency and automation of mutual aid varies. After listening to recorded radio transmissions, and listening to several personnel, it became apparent that while some mutual aid is preplanned, other situations require the incident commander to list the community and equipment that should respond. This consumes the incident commander's time and can create confusion.

The use and application of the Incident Command System (ICS) was observed to be somewhat informal. Although without repeated use at large incidents these skills quickly fade, utilizing a more formal approach to incident command in training can be a useful method to increasing the knowledge of this system. In an effort to help Salem enhance the level of implementation pertaining to incident command we have provided an example command Standard Operating Guideline in Appendix E.

As our recommendations are considered and applied, emphasis should be placed on a more formal and integrated approach to planning, communication, water supply, incident command, and documentation.

Alerting of personnel is currently done by local siren and radio pagers. Salem should consider moving away from the local alerting siren. A combination of radio pager and cell phone alerting software should be utilized to maximize the notification of firefighters.

National Standards

National Standards are often viewed as a *cookie-cutter* approach where one standard fits all communities. However, other people and organizations view these Standards as industry best practices. With this in mind, we will examine several National Standards and recommended practices in an effort to rate the fire protection capabilities in Salem and place it's Fire Departments in perspective.

Time is considered the most critical factor in the evaluation of fire protection capabilities. The ability to arrive quickly to the scene of the emergency is essential for the successful conclusion of the incident. According to the National Fire Protection Association's Fire Protection Handbook, 18th Edition, the first engine should arrive within 5 minutes of the sounding of the alarm, since additional time is required to size up the situation, deploy hose lines, and begin search and rescue procedures.

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The following factors comprise the elements in a Fire Department response time sequence. While response time is critical, it is not the only time needed for an emergency response[1]:

A. Dispatch Time
B. Turnout Time
C. Travel Time
D. Access Time
E. Setup Time

The elapsed time from fire ignition and the start of fire suppression activities is critical and has a direct relationship to fire loss. The delivery of EMS is also time critical. The survival rates of affected individuals are directly dependent upon how quickly professional assistance arrives. In the case of a cardiac arrest, emergency crews have four minutes to begin treatment. If treatment is delayed for any reason, the chances of survival diminish rapidly.

National Fire Protection Association (NFPA) 1720, Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments, 2001 edition outlines the minimum requirements relating to response times. As evidence of an exceptional organization, clearly Salem exceeds this standard in a majority of areas.

The Occupational Safety and Health Administration (OSHA) Standard 1910.134, Respiratory Protection contains a section on the procedures for interior structural firefighting. The Standard requires firefighters to operate in teams of two while inside a burning building, while at least two additional personnel remain outside for the purpose of rescuing the two firefighters inside. Connecticut is an OSHA State and this standard should be followed consistently.

Insurance Service Office (ISO) Rating

The Insurance Service Office provides a rating for each community on a 1 to 10 scale. One is the best protection while a rating of 10 means that there is no protection provided. Currently, as with many communities that lack a municipal water supply, Salem has a rating of 9. This rating is banded or clustered for residences and applies on an individual basis if the insurer of a business chooses to purchase this information. In short, this rating does not carry as much weight as it once did.

The Fire Suppression Rating Schedule (FSRS) is a manual containing the criteria ISO uses in reviewing the fire prevention and fire suppression capabilities of individual communities or fire protection areas. The schedule measures the major elements of a

[1] Source of information: NFPA Fire Protection Handbook, 18th Edition

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community's fire protection system and develops a numerical grading called a Public Protection Classification (PPC™).

The FSRS employs nationally accepted standards developed by such organizations as the National Fire Protection Association (NFPA), the American Water Works Association (AWWA), and the Association of Public-Safety Communications Officials (APCO) International. When those organizations update their standards, the ISO evaluation changes as well. The PPC program always provides a useful benchmark that helps fire departments and other public officials measure the effectiveness of their efforts and plan improvements.

How the Fire Suppression rating Schedule works

The FSRS lists a large number of items (facilities and practices) that a community should have to fight fires effectively. The schedule is performance based and assigns credit points for each item. Using the credit points and various formulas, ISO calculates a total score on a scale of 0 to 105.5.

The FSRS considers three main areas of a community's fire suppression system: emergency communications, fire department (including operational considerations), and water supply. In addition, it includes a Community Risk Reduction section that recognizes community efforts to reduce losses through fire prevention, public fire safety education, and fire investigation.

Emergency communications

A maximum of 10 points of a community's overall score is based on how well the fire department receives and dispatches fire alarms. ISO's field representatives evaluate:

- the emergency reporting system
- the communications center, including the number of telecommunicators
- computer-aided dispatch (CAD) facilities
- the dispatch circuits and how the center notifies firefighters about the location of the emergency

Fire Department

A maximum of 50 points of the overall score is based on the fire department. ISO reviews the distribution of fire companies throughout the area and checks that the fire department tests its pumps regularly and inventories each engine and Ladder Company's equipment according to NFPA 1901. ISO also reviews the fire company records to determine factors such as:

- type and extent of training provided to fire company personnel
- number of people who participate in training
- firefighter response to emergencies
- maintenance and testing of the fire department's equipment

Water Supply

A maximum of 40 points of the overall score is based on the community's water supply. This part of the survey focuses on whether the community has sufficient water supply for fire suppression beyond daily maximum consumption. ISO surveys all components of the water supply system. They also review fire hydrant inspections and frequency of flow testing. Finally, they count the number of fire hydrants that are no more than 1,000 feet from the representative locations.

Community Risk Reduction Strategies

The Community Risk Reduction section of the FSRS offers a maximum of 5.5 points, resulting in 105.5 total points available in the FSRS. The inclusion of this section for "extra points" allows recognition for those communities that employ effective fire prevention practices, without unduly affecting those who have not yet adopted such measures.

The addition of Community Risk Reduction gives incentives to those communities who strive proactively to reduce fire severity through a structured program of fire prevention activities. The areas of community risk reduction evaluated in this section include:

- fire prevention
- fire safety education
- fire investigation

One question that may be asked is "if the apparatus set is reduced to that recommended in this report will insurance rates go up?" Considering that Salem has a rating of 9, and has 25% more apparatus than similar communities, the insurance rating will not be deteriorated by a consolidation of apparatus.

RECOMMENDATIONS

IV.B1 One set of Policies and Standard Operating Guidelines (SOGs) should be crafted by a joint committee composed from members in both Departments. Once completed, this operational guidance should apply to both Departments without exception.

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IV.B2 Mutual aid districts and automatic alarm assignments should be strengthened.

IV.B3 The use of a more delegated and integrated approach to incident command should be obtained through training and a series of joint exercises.

IV.B4 Formal preplans, including mapping and a hazardous materials inventory, should be developed for all commercial and industrial properties. This information should be shared with dispatch and a policy should be developed indicating specific information that should be broadcast during a response.

IV.B5 Primary and secondary water supply points should be designated for each address. This information should be stored in the computer-aided database and broadcast to responding units at the start of a fire incident response.

IV.B6 Dispatch should announce and confirm which water supply point will be utilized during a given incident.

IV.B7 All personnel should be trained on the Occupational Safety and Health Administration Standard pertaining to initial fire-ground operations. All personnel should follow this "Two In/Two Out" standard.

IV.B8 All personnel should be trained on the National Incident Management System and the use of incident command should to be strengthened and expanded.

IV.B9 Personnel should be alerted through a combination of radio pagers and secondary smartphone notification software such as Second Signal or e-Dispatches.

IV.C Emergency Medical Services (EMS)

Emergency Medical response is provided by the GLVFC with the assistance of the SVFC. This approach strives to provide rapid response and patient care to the citizens of Salem with two career Firefighter/EMTs dispatched from separate locations during the day time and with volunteers after hours. The resident survey demonstrates that overall, the public is pleased and appreciates the current level of service provided.

The current response time standard set by the Commission on Accreditation of Ambulance Services reads as follows:

201.05.02 In Life threatening requests the total response time standard will be eight minutes and fifty-nine seconds, or less, 90% of the time unless the Medical Director has determined that this standard is not feasible due to uncontrollable circumstances (such as extreme rural settings).

Salem should not be considered an extreme rural setting and the eight minute and fifty-nine second response time should be a realistic target utilized by the Town of Salem. Presently, defibrillators are provided in fire apparatus, but have not been distributed to volunteer responders. Considering the lack of a local police department, serviceable defibrillators should be rotated out from apparatus and issued to active responders that live in different areas of the community. This practice is utilized by many volunteer EMT squads and reduces the time from the 911 call to defibrillation. In an effort to augment the response of the transporting ambulance, the deployment of semi-automatic defibrillation should be strengthened.

The replacement of ambulances should be automatic through the capital planning process. Based upon the call volume, ambulances should have a twelve-year life span, serving six years as the "primary" ambulance and six years as a secondary or backup unit. When a new ambulance is purchased, the old one would produce relatively little value as a trade in. The current unit should be retained as a second ambulance thus increasing service to the community, providing personnel with a participation opportunity and providing a mechanical backup that will reduce the elongated response times that are common when a mutual aid ambulance is requested. Many communities band together to have one mechanical backup that would serve two or three communities. It is our recommendation that Salem initiate this process, retain this unit, and create the opportunity for other communities to participate in this program.

We believe that to enhance service, the ambulance and both of the on-duty members should be deployed from the Salem Volunteer Fire Company station. The purpose of that change is to staff the ambulance and to provide a more rapid response with a full crew to the majority of the community.

RECOMMENDATIONS

IV.C1 Develop a stronger system of semi-automatic defibrillator equipped first responders. Based on American Heart Association Guidelines, it should be the Town's goal to have a first responder on the scene within six (6) minutes.

IV.C2 When the current ambulance is replaced, it should be retained as a mechanical backup.

IV.C3 When career staff are on duty during the day the ambulance should be deployed from the Salem Volunteer Fire Company station to provide enhanced service and more effective and, arguably safer, employee utilization.

IV.D Fiscal Analysis

In terms of what the community receives from these Departments versus what it spends, volunteer fire service has to be one of the most cost-efficient services available to the public in New England. For very little operating cost, the citizens of Salem receive excellent fire services from a dedicated volunteer force. As previously noted, between the resources of both departments, Salem has approximately 25% more apparatus than most communities of similar size. Salem will need to construct a capital plan that provides for operational need on a town-wide basis that reduces redundancy.

RECOMMENDATIONS

IV.D1 A capital planning process must carefully choose apparatus and equipment to avoid the duplication and redundancy of the past. The allocation of resources must reflect town-wide needs with an emphasis on efficiency and effectiveness.

IV.E Recruitment and Retention of Personnel

Both Departments have concerns relative to the retention of personnel. It is our observation that the rivalry between the two Departments is a factor in the loss of new personnel. During our onsite observation time, we heard several comments from members of both Departments, noting that their experience was deteriorated by this rivalry. If Salem seeks to retain the largely volunteer nature of this service, a conscious effort to communicate and attract the community's youth and new residents must occur. In addition, other strategies should be employed to retain personnel. Many communities have successfully retained personnel by allowing access to employee

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benefits on a self-payment basis or through increased recognition and a formal program of awards.

As mentioned previously, Staffing for Adequate Fire and Emergency Response (SAFER) Grants are available through the Federal Emergency Management Agency (FEMA). One category of these grants is to enhance the recruitment and retention efforts for volunteer firefighters. The Town of Salem should pursue a SAFER grant to enhance their recruitment and retention efforts.

RECOMMENDATIONS

IV.E1 There needs to be a conscious and strategic recruitment and retention program jointly operated by both Departments. There should be an active recruitment program that seeks out and markets the Departments to prospective members.

IV.E2 The process of bringing a member on the Department should follow a written plan in an effort to be consistent and should be timely. Once a member is brought on and begins to progress through a training program, there should be a Department orientation which reviews policies, procedures, and expectations, and provides general information. In addition, the Departments should develop a mentoring program that assigns a senior firefighter to be a mentor for the new person.

IV.E3 A SAFER Grant for the recruitment and retention of volunteer personnel should be pursued in 2015.

IV.E4 The Fire Chief should assign one of the full-time members to manage and develop recruitment and retention efforts.

IV.F Deployment and Response of Personnel

The ability of personnel to effectively operate on the incident scene should be evaluated against 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. This Standard can provide a basis for the periodic evaluation of operations. Safe operations require coordination and communication. The following recommendations offer a basis for consistent and safe operations in accordance with National Standards and common industry practices.

RECOMMENDATIONS

IV.F1 Each member should have a copy of the Departments Policies, Procedures, and Standard Operating Guidelines.

IV.F2 Operations should be in conformance with the OSHA Two In/Two Out rule to the extent possible.

IV.G Fire Apparatus and Capital Planning

In an effort to meet the needs of both Departments, the Town has acquired more apparatus than it truly needs. Based on national averages, the Town should have the following fire suppression assets:

- 2 Class A Pumpers
- 1 Quint/Aerial Ladder
- 1 Tanker/tender
- 1 Medium Duty or Heavy Rescue
- 2 fire stations

In addition to these assets, communities typically acquire ATVs and rescue boats based on incident history and the specific needs of the community. In communities the size of Salem, where the fire department provides transport EMS, two ambulances should be utilized. Typically, the first ambulance serves six to seven years in the primary response role and then transitions to a backup role when a new unit is acquired. Based on the complexity of ambulances and the propensity to need repair, it is important to retain a second ambulance as a mechanical backup.

A capital project usually involves an asset obtained at a cost of at least $10,000 that has a life span exceeding two years. This definition has been applied to our capital project recommendations. As such, smaller projects have been removed for the listing of proposed fire service capital projects (Table 6).

The ideal apparatus set for the Town is detailed below:

Apparatus Description	Current Inventory SVFC	Current Inventory GLVFC	Recommended Inventory	Deviation
Ambulances		1	2	Retain Ambulance at next trade
Class A Pumpers (Engine/Tanker)	1	1	2	Consolidate 1 unit into larger Engine/Tanker
Quint/Aerial ladder	1		1	
Heavy Rescue		1	1	
Tanker/Tender	1	1	1	Consolidate to one tanker
ATV/ Utility Vehicle	1	1	1	Consolidate to 1 unit
Wildland Unit	1	1	1	Consolidate to 1 unit
Rescue Boat		1	1	
Rapid Response Squad	1		1	

Table 4 - Apparatus inventory and consolidation strategy

In Salem, the fleet of apparatus in both Departments was found to be in exceptional condition, with the exception of the Tanker 127. Tanker 127 is the largest and heaviest piece of apparatus owned by the community. Based on our observation, we believe the vehicle chassis has passed its useful life and poses several safety concerns.

Clearly, this vehicle has become an integral part of the GLVFC culture and as such, the replacement of this unit has become a source of conflict. As most communities the size of Salem have one tanker and utilized a robust automatic aid system to combat fires out of the water district, we believe that an opportunity exists to provide adequate fire protection and consolidate this tanker and an engine/tanker into a single custom unit with a larger water supply than the current engine/tanker.

In 2012, Tanker 127 was found to be in serviceable condition by Shipman's Fire Equipment Company, Inc. Since that evaluation, Tanker 127 has had several safety upgrades. Based on the professional evaluation and recent upgrades, this should be monitored for safety, and disposed of at the end of its serviceable life span. Then when

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a new unit is procured in 2022, both units listed above could be traded in toward a single unit that would meet the needs of the community. As this vehicle has become a source of conflict and is viewed as a "sacred cow", a discussion relative to service level will likely ensue. A portion of this discussion will indicate how the Department's ability to protect the community is compromised by this proposed consolidation or by the deployment of a unit with a smaller water supply. As the study progressed, we heard how the extra capacity of the current tanker makes all the difference when it comes to filling long hose lays and being able to combat a structure fire at the end of a long driveway.

As pointed out earlier, a community selects and pays for a level of risk. Obviously if you had five tankers, the community would not have to wait for mutual aid units and the level of risk would decrease. In our judgment, a consolidated unit when combined with the response of SVFC and mutual aid units would provide more than adequate protection to the community.

As we examined this unit, we found that it responds to a significant number of incidents and serves many roles. Given the current condition of this vehicle, response should be limited to situations where an external water supply is needed.

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Fire Apparatus Inventory

Salem Volunteer Fire Company

Figure 1 - 1991 Pierce Arrow with a 1250 GPM Pump

Figure 2 - 2009 Ferrara 77' Quint

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Figure 3 - 1999 US Tank, 2000 GPM, 2,500 gallon Tender

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Figure 4 – 2001 Ford Medical Response Squad

Figure 5 - 2012 Ford Service Truck

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Figure 6 - 1985 Chevy Wildland Unit

Figure 7 - 1999 Ford Expedition Traffic Control Unit

Figure 8 - 2010 Polaris 6x6 Ranger

Gardner Lake Volunteer Fire Company

Figure 9 - 2012 PL Custom Ambulance

Figure 10 - 2000 Ferrara Class A Pumper 1500 GPM, 1000 gallon tank

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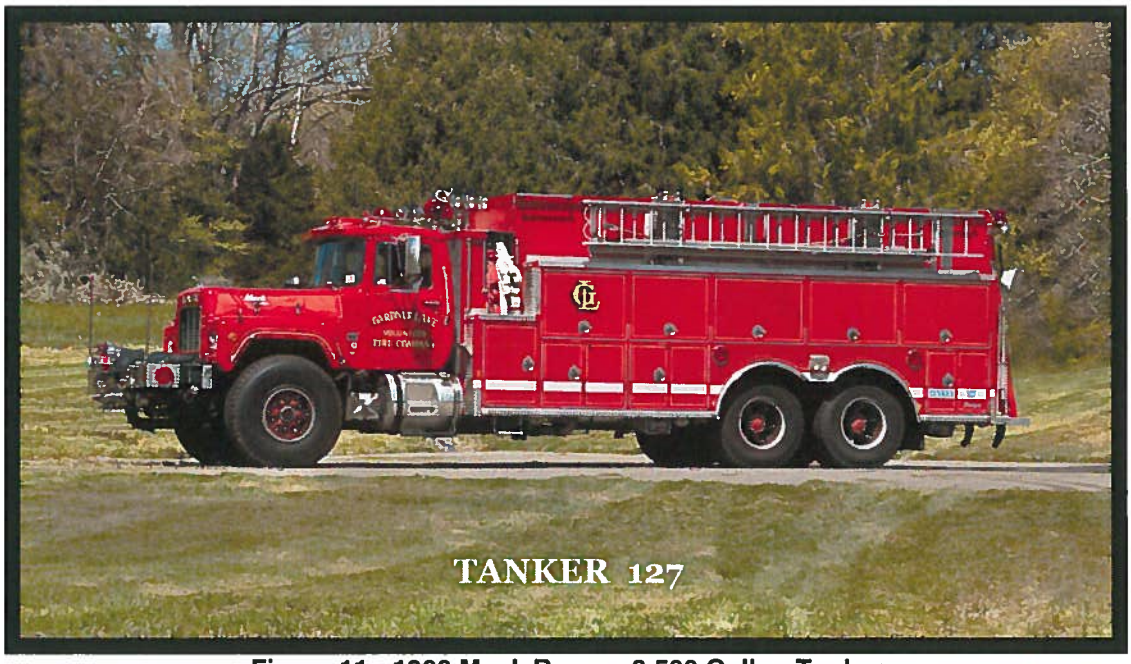

Figure 11 - 1988 Mack Ranger 3,500 Gallon Tanker

Figure 12 - 1988 Ford F-350 Wildland Unit

Figure 13 - 2007 Ford Service Truck

Figure 14 - 2008 Mutt UTV

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Figure 15 - Rescue Boat

The rescue boat pictured above is slated to be replaced in Fiscal 19/20. As small rescue boats typically last for many years, this project should be re-evaluated. Should a replacement be considered, the Town should consider the condition of the current boat and evaluate the need for a larger vessel, as well as the demand for service that requires a boat. Many Departments are moving away from larger boats and purchasing smaller flat bottom rescue boats for each station.

The current fire service capital plan is detailed in Table 5 on the following page:

Fire Service Capital Projects	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24	TOTAL
GLVFC Emergency Comm Lighting Upgrades ET &R127			25,000								25,000
GLVFC Boat M-127						68,000					68,000
GLVFC Brush Truck 1989 Ford						78,000					78,000
GLVFC Tanker/Pumper 1989		140,000	140,000	140,000							420,000
SVFC 4 Zoll Defibulators											0
SVFC Phone System	5,200										5,200
SVFC Replace Engine Tank			575,000								575,000
SVFC Hall Floor Refinishing		2,500									2,500
SVFC Replace Engine Tanker 2000							775,000				775,000
SVFC/GLVFC GEAR hose	10,065	27,500	10,000								47,565
GLVFC GEAR	33,550										33,550
Replacement of Self Contained Breathing Apparatus								120,000			120,000
Replace 1999 Traffic Control Unit								40,500			40,500
Replace two UTVs									46,500		46,500
Replace 2001 Rapid Response Squad									60,000		60,000
Replace 1999 Tanker										345,000	345,000
Replace 2007 Service Unit									78,000		78,000
Sub Total, All Other	48,815	170,000	750,000	140,000	0	146,000	775,000	160,500	184,500	345,000	2,719,815

Table 5 - Current Fire Service Capital Plan

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At the SVFC station, several smaller temporary storage buildings exist. These should be consolidated into a single permanent structure that can store fire service and emergency management supplies. We believe that the Town should provide the SVFC with the building materials and supplies, and that the members of the SVFC be asked to construct the building. We have reflected a two-year plan to provide these resources.

Figure 16 - Temporary Storage Building

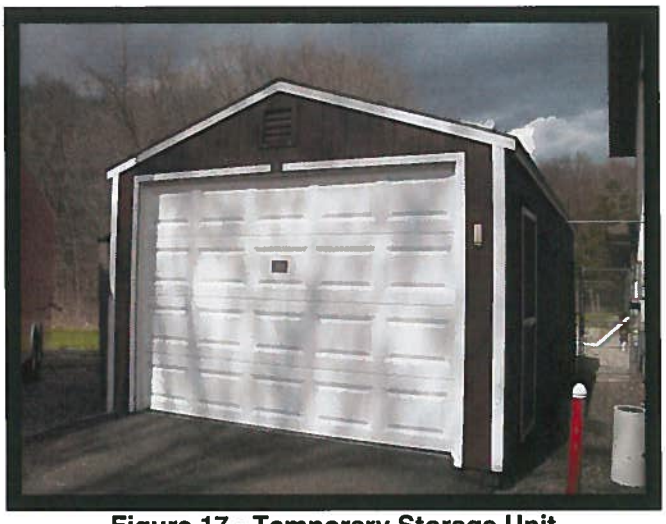

Figure 17 - Temporary Storage Unit

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Figure 18 - Potential Site of Permanent Storage Facility

As noted previously in this report, training should become a joint endeavor. As the Town currently owns a site that is used for fire training, we believe that the development of a joint SVFC and GLVFC training site should be pursued as a project by both Departments. We have inserted a three-year plan to provide the resources necessary to develop a facility of this type. Should consideration be given to using this facility for live fire training evolutions, compliance with applicable NFPA standards pertaining to firefighter health and safety and live burn training should be utilized as a foundation to developing this site.

Figure 19 - Town Owned Land, Possible Joint Fire Training Site

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The proposed capital plan is color coded to reflect the type of project. The key to this color code is listed below:

- **Red – Critical Need**
- **Orange – Health and Safety Need**
- **Green – A planned project to maintain or enhance the ability of the fire service**

The proposed capital plan reflects an overall reduction in cost of $255,700. This plan is detailed in Table 6 on the following page:

Fire Service Capital Projects	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	FY 23/24	TOTAL
Planned replacement of fire hose	10,065	27,500	10,000								47,565
Turnout gear rotation	**33,550**										**33,550**
Monitor 1989 Tanker Dispose when it fails insp.											-
Diesel Exhaust System – both Stations		**60,000**									**60,000**
Epoxy High traction flooring – both stations		**50,000**									**50,000**
Emergency Communications & Lighting Upgrades ET & R127			**25,000**								**25,000**
Storage facility materials		25,000	25,000								50,000
Replace 1991 Engine/Tanker			575,000								575,000
Training Site Materials		30,000		30,000	20,000						80,000
Brush Truck 1989 Ford Consolidate to one unit						78,000					78,000
Replace 2000 Engine Tanker Consolidate with Tanker							775,000				775,000
Replacement of Self Contained Breathing Apparatus								120,000			120,000
Replace 1999 Traffic Control Unit								40,500			40,500
Replace two UTVs									46,500		46,500
Replace 2001 Rapid Response Squad									60,000		60,000
Replace 1999 Tanker										345,000	345,000
Replace 2007 Service Unit									78,000		78,000
Sub Total, All Other	**43,615**	**192,500**	**635,000**	**30,000**	**20,000**	**78,000**	**775,000**	**160,500**	**184,500**	**345,000**	**2,464,115**

Table 6 - Proposed Fire Service Capital Plan

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RECOMMENDATIONS

IV.G1 The current ambulance should be retained as a mechanical backup when the next ambulance is purchased.

IV.G2 Based on the decreasing frequency and severity of brush fires, the two existing brush units should be replaced with a single unit.

IV.G3 Automatic mutual aid for water supply should be strengthened.

IV.G4 Tanker 127 was found to be serviceable in 2012. Based on the recent safety upgrades, this should be monitored for safety, and disposed of at the end of its serviceable life span.

IV.G5 In 2022, a larger capacity engine/tanker should replace Tanker 127 and ET127.

IV.G6 The purchase of a new rescue boat should be re-evaluated based on need and call volume.

IV.G7 The Town should provide the SVFC and the GLVFC the materials to develop a joint training site over a three-year period. The Town should own this training facility.

IV.G8 Future purchases should consolidate apparatus to the level of the ideal apparatus set identified through this study.

IV.G9 The Town should provide the SVFC the materials to construct a permanent storage building for fire service and emergency management operations.

IV.G10 The Town should install a diesel exhaust extraction system in both stations.

IV.G11 The Town should install high traction epoxy flooring in the apparatus bays of both stations.

IV.H Fire Service Facilities

The Town of Salem owns the fire apparatus and equipment. The SVFC station is owned by the town and leased to the to the SVFC for $1 per year. The Gardner Lake station remains the property of that fire company. If the Town is going to continue to provide equipment for the GLVFC, a long-term agreement to ensure the Town has the ability to utilize the GLVFC station is essential. The current stations are well maintained and serve the needs of the community. However, these stations are utilitarian and should not be considered extravagant.

Figure 20 - Gardner Lake Fire Station

Figure 21 - Salem Volunteer Fire Company Station

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Presently, both fire stations are in good condition and are more than adequate for the needs of the Town. However, both stations lack two essential safety features. First, neither station has a diesel exhaust extraction system. As diesel fumes are carcinogenic, a system designed to remove these hazardous particulates should be installed. Second, neither station has epoxy high traction flooring in the apparatus bays. Smooth concrete floors are a source of injury and a high traction floor should be installed in each station. In addition, the detectors utilized within the fire alarm systems of the stations should be replaced based on age.

These facilities are a source of pride for the membership of each Department. Based on the topography and area encompassed by the Town of Salem there is reasonable justification for two physical stations (one primary and one substation) to provide adequate equipment availability/coverage.

RECOMMENDATIONS

IV.H1 ***A long-term agreement for the use of the GLVFC station should be completed to provide the Town with the assurance that this facility can be utilized in the long-term. No further equipment should be purchased for the GLVFC until the Town has this level of cooperation and assurance.***

IV.H2 ***If consolidation occurs, then the Town should install a diesel exhaust extraction system, in the primary station. If consolidation does not occur, both stations should have an exhaust extraction system installed.***

IV.H3 ***The Town should install high traction epoxy flooring in the apparatus bays of both stations.***

IV.H4 ***The development of any future facilities should be sited with consideration to the long-term expected growth and the impact on response times.***

IV.H5 ***Over the long term the town should explore regional approaches to Fire/Rescue service so that future decisions about facility upgrade or expansion are made within the context of a regional delivery model and made in consultation with neighboring communities.***

IV.I Firefighter Health and Safety

Overall we found that issues relating to firefighter health and safety had been addressed by the Town. Typical issues that we find include:

- Unsafe turnout gear
- A lack of vehicle maintenance
- A lack of structural firefighting training
- Facility hazards

In Salem, we found that both Departments and the Town took these issues seriously and that personal protection, maintenance of equipment, and training were topics that had already been addressed by the community. As an example, the capital plan provides for the replacement of turnout gear, apparatus lighting, and safety related upgrades. As mentioned previously, we feel that the following three items should be addressed:

- There is no diesel exhaust extraction system installed in either station;
- The apparatus bays lack high traction flooring in both stations; and
- The fire alarm systems should be upgraded with new detection devices.

Other safety related recommendations include the need to have a single set of SOGs and a joint training program that ensures both departments increase the level of operational integration. All members should be trained to follow the operational parameters set by the OSHA Two In/Two Out rule. This is a very difficult task as firefighters want to take action to help others. However, the OSHA rule limits initial action to exterior operations unless a visible rescue needs to be performed. Once four personnel arrive on the scene then an interior fire attack can proceed.

RECOMMENDATIONS

IV.I1 The Town should install a(n) diesel exhaust extraction system(s) as previously discussed.

IV.I2 The Town should install high traction epoxy flooring in the apparatus bays of both stations.

IV.I3 The two Departments need to move closer together operationally, and as a first step toward ultimate consolidation, all training should be joint training.

IV.I4 One set of Policies and Standard Operating Guidelines should be crafted by a Municipal Fire Chief in consultation with members from both existing

Departments. Once completed, this operational guidance should apply to both Departments without exception.

IV.I5 Both Departments should be trained in and follow the OSHA "Two In/Two Out" rule. Unless four personnel are on the scene, no interior operations should commence unless a visible rescue situation exists.

IV.I6 An Accountability Officer needs to be assigned to track personnel from both stations. This is an essential role, especially considering the response of personnel directly to the scene.

IV.I7 Review two policies or Standard Operating Guidelines at each training meeting.

IV.I8 All personnel should be assigned portable radios with an internal emergency notification feature that can be identified to the specific firefighter at the Dispatch Center.

IV.I9 All personnel should be trained to the Firefighter I/II (NFPA 1001) level prior to permitting them to be utilized for any interior operations.

IV.I10 A new gear dryer should be pursued through the operational budget or through a FireAct health and safety grant at the SVFC.

IV.J Training and Development

Training is, without question, one of the three most important functions that a fire department should be performing on a regular basis; the others being response to emergency incidents and fire prevention activities. One could even make a credible argument that training is, in some ways, more important than emergency responses because a department that is not well trained, prepared, and operationally ready, will be unable to effectively, efficiently, correctly, and safely, fulfill its emergency response obligations and mission. A comprehensive, diverse, and ongoing training program is absolutely critical to the fire department's level of success. In Salem, we found that the training program was adequate, but not well coordinated, documented, or lesson plan driven.

An effective fire department training program must cover all of the essential elements of that specific department's core missions and responsibilities. The program must include an appropriate combination of technical/classroom training and manipulative or hands-on/practical evolutions. Most of the training, but particularly the practical, standardized, hands-on training evolutions, should be developed based upon the department's own operating guidelines and operations while remaining cognizant of widely accepted practices and standards that could be used as a benchmark to judge the department's operations for any number of reasons. Failure to use widely accepted firefighting

practices was a significant conclusion in the many investigations that were conducted after the Charleston, South Carolina, Super Sofa Store fire in June 2007, that resulted in the deaths of nine firefighters. As with all other fire department operations, there must be consistency in how the training is being conducted.

Certain Occupational Safety and Health Administration (OSHA) regulations dictate that minimum training must be completed on an annual basis, covering various topics including: a review of the respiratory protection standard, self-contained breathing apparatus (SCBA) refresher and user competency training; SCBA fit testing (29 CFR 1910.134); Blood borne Pathogens Training (29 CFR 1910.1030); Hazardous Materials Training (29 CFR 1910.120); Confined Space Training (29 CFR 1910.146); and structural firefighting training (29 CFR 1910.156). In addition, National Fire Protection Association (NFPA) standards contain recommendations for training on various topics, such as a requirement for a minimum of 24 hours of structural firefighting training annually for each fire department member.

There are a number of ways to evaluate the effectiveness of the fire department's training program. One increasing common way is through the use of annual skills proficiency evaluations where all members of the department are required to successfully perform certain skills, and/or complete standardized evolutions, either individually or as part of a team. Post course evaluations, post incident critiques, and evaluation of incident operations and statistics can also provide important feedback regarding the training program. **It is important that all training, no matter how minor or inconsequential, be documented.** Failure to do so can expose the Department and Town to significant liability.

Professional development for fire department personnel, especially officers, is also an important part of overall training. There are numerous excellent opportunities for firefighters and officers to attend training on a wide range of topics outside of Salem including the Connecticut Fire Academy, regional fire academies, and the Volunteer Incentive Program (VIP) at the National Fire Academy in Emmitsburg, Maryland. Beyond the practical benefits to be gained from personnel participating in outside training, encouraging personnel to earn and/or maintain various specialized certifications such as Fire Instructor or Fire Officer, increases the positive professional perception of the organization, and can help to demonstrate a commitment to continued excellence.

The MRI study team looked at the SVFC and GLVFC training programs. Through personnel interviews, and an evaluation of the current training program, the team reached the conclusion that the training program is largely internal to each agency.

Training is adequate in Salem. However, a well-organized joint training program should be developed between the two departments. This program should be lesson plan driven, and include both classroom and practical instruction. This program will need a more collaborative, organized, and consistent program that focuses on National

Standards. This training should include periodic live fire training at a safe facility and in compliance with NFPA 1403.

Figure 22: Periodic live fire training exercises at a dedicated training facility need to be conducted in order for personnel to maintain their skills proficiency.

RECOMMENDATIONS

IV.J1 The two Departments need to conduct all training jointly.

IV.J2 Both Departments should be trained in and follow the OSHA "Two In/Two Out" rule. Unless four personnel are on the scene, no interior operations should commence unless a visible rescue situation exists.

IV.J3 Review two policies or Standard Operating Guidelines at each training meeting.

IV.J4 Develop a formal joint training program that is documented with lesson plans and attendance rosters.

IV.J5 Finalize and post a training schedule on-line and in both stations.

IV.J6 Develop individual training files, or a computer database, that can document and track training and certification of personnel.

IV.J7 All personnel should be encouraged to obtain fire service certifications offered through the Connecticut Fire Academy and/or the National Fire Academy.

IV.J8 Fire Officer I certification should be required either as a condition of, or within twelve months of, promotion.

IV.J9 National Incident Management System (NIMS) training should be delivered to all personnel and the expanded use of incident command should be practiced in conjunction with every practical training session.

IV.J10 Appoint a Training Officer to develop an enhanced and coordinated training effort between the two departments.

IV.J11 There should be at least three monthly training sessions, two focused on fire service training and one devoted to specialized training.

IV.J12 All training sessions should be conducted jointly with personnel attending from both departments. The location of training should be rotated so all personnel become familiar with all of the Town's equipment and facilities.

IV.J13 An internal officer orientation should be provided to each newly appointed officer.

V. Salem Resident Survey

Municipal Resources, Inc. developed an on-line survey to gage the level of service that the residents felt they were receiving from their various public safety organizations. This survey was made available to residents through a link on the town website and received 153 responses.

With respect to the fire departments, 52% of the respondents stated they were in the SVFC district, while 24% said they were in the GLVFC district. What is perhaps most interesting is that 24% of the residents were unsure of in which district they resided. 37% of the respondents had called the fire department one or more times in the past three (3) years, and the majority (45%) of the calls were for medical emergencies. 96% of the respondents were "satisfied" or "very satisfied" with the level of service that they received. The responses were split almost evenly (51% vs. 49%) on whether they would be willing to increase the budget of the volunteer fire department that serves them.

On the police questions, a similar number of residents (34%) had requested services from the Resident Trooper. Although we identified several types of common police activities, the majority of respondents (65%) reported their incident was other than offered. 91% of the respondents felt that the service they received was "satisfactory" or "very satisfactory." 74% of the respondents were either "satisfied" or "very satisfied" with the Resident Trooper program.

86% of the respondents had never interacted with the Emergency Management Committee. Of those that had, 33% had done so with a general question. Despite this lack of contact with the committee, 96% of the respondents felt that the Town of Salem's response to emergencies was "satisfactory" or "very satisfactory."

Less than 30% of the respondents had needed to contact the Fire Marshal. Of those that did, 86% rated the Fire Marshal as "satisfactory" of "very satisfactory" in that interaction.

The complete results of the survey including resident comments are available in Appendix A.

RECOMMENDATIONS

There are no recommendations in this section.

VI. Salem Volunteer Fire Company Survey

Municipal Resources, Inc. developed an on-line survey to obtain a perspective on the organization. Chief Maiorano backed this survey and ensured that personnel were advised of this participation opportunity. The survey was completed by 28 stakeholders that represented a wide array of SVFC personnel. Based on the extent of response this survey provides a comprehensive perspective on the organization. The survey revealed the following:

- 100% of respondents felt that the facility was clean and safe
- 100% of respondents felt the Department was well managed
- 93% of respondents believed that a high level of mutual respect exists within the organization
- 96% of respondents feel that they receive support and encouragement

- 99% of respondents believe that members share a common vision, expectations are clear and feedback is timely
- 84% believe that discipline is fair
- 100% believe that training is adequate and fairly distributed
- 95% of respondents receive personal and professional satisfaction from their association with SVFC
- 88% of respondents believe that assignments are distributed fairly
- 100% of respondents indicate that there is no discrimination or harassment in the SVFC
- 96% of respondents believe that vehicles are safe and well maintained
- 99% of respondents believe that policies and rules provide clear guidance
- 96% of respondents believe there is no intimidation within the organization
- 100% of respondents believe that the Department is keeping pace with technology
- 96% of respondents characterize SVFC as a good employer and feel that supervisors are open and welcome suggestion
- 100% of respondents are proud to be a member of the SVFC
- 82% of respondents believe that the citizens of Salem value the services they provide
- 100% of respondents believe that supervisors provide guidance and support
- 100% of respondents believe that the incident command system is utilized effectively and safety is adequate
- 47% of respondents believe that SVFC and the GLVFC work well together
- 59% of respondents believe that SVFC and the GLVFC work well together an emergency scene
- 75% of respondents believe that SVFC and the GLVFC firefighters work well as a team

- 96% of respondents believe that the organization provides acceptable fire protection and emergency medical services

Most respondents believe that recruitment and retention and funding are the two largest issues facing the organization. The availability of personnel during daytime, weekday hours is an organizational weakness. Survey respondents believe that professionalism, training, and response are organizational strengths. Overall training, morale, personal protective gear, and apparatus are positively viewed by the membership. Respondents also indicated that support from the Town was at a moderate level.

RECOMMENDATIONS

There are no recommendations in this section.

Gardner Lake Volunteer Fire Company Survey

Municipal Resources, Inc. developed an on-line survey to obtain a perspective on the organization. This survey created conflict and apprehension within the organization and there was active resistance to widespread participation. Finally, after much discussion, the survey was published and Chief Savalle was notified that the survey was active and that the organization could choose to participate or ignore the study. The survey was completed by 8 stakeholders that provide a less than adequate view of the organization. Based on the extent of response this survey provides a skewed perspective on the organization that reflects an internalized and defensive culture. The survey revealed the following:

- 75% of respondents felt that the facility was clean and safe
- 75% of respondents felt the Department was well managed
- 75% of respondents feel that they receive support and encouragement
- 62% of respondents believe that members share a common vision, expectations are clear and feedback is timely
- 50% of respondents believe that discipline is fair and consistent
- 62% of respondent believe that they receive adequate training
- 50% believe that training is adequate and fairly distributed
- 100% of respondents receive personal and professional satisfaction from their association with GLVFC
- 88% of respondents believe that assignments are distributed fairly
- 100% of respondents indicate that there is no discrimination or harassment in the GLVFC
- The majority of respondents believe that vehicles are safe and well maintained
- 100% of respondents believe that policies and rules provide clear guidance
- 100% of respondents believe that the Department is keeping pace with technology
- 100% of respondents characterize GLVFC as a good employer and feel that supervisors are open and welcome suggestion

- 100% of respondents are proud to be a member of the GLVFC
- 88% of respondents believe that the citizens of Salem value the services they provide
- 99% of respondents believe that the incident command system is utilized effectively and safety is adequate
- All respondents believe that safety is adequate
- 86% of respondents believe that SVFC and the GLVFC work well together
- 100% of respondents believe that SVFC and the GLVFC work well together an emergency scene
- 75% of respondents believe that SVFC and the GLVFC firefighters work well as a team
- 100% of respondents believe that the organization provides acceptable fire protection and emergency medical services

Most respondents believe that recruitment and retention is the largest issue facing the organization. Many believe that the Fire Chief needs to be more approachable. Training, personal protective equipment, dispatch, morale, and apparatus are highly rated by the membership. Respondents also indicated that support from the Town was less than optimal.

RECOMMENDATIONS

There are no recommendations in this section.