



**GALLATIN CANYON
CONSOLIDATED RURAL
FIRE DISTRICT**

ORGANIZATIONAL REVIEW

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INTRODUCTION

This report was commissioned by the Gallatin Canyon Consolidated Rural Fire District in July, 2005. It is the results of a study of the Gallatin Canyon Consolidated Rural Fire District in terms of resources and risks both at present and as perceived in the next five to ten years. The purpose of the study is to give an outside perspective of the current services provided by the Fire Department as well as identifying alternatives to address future levels of risk in the Big Sky Community.

Specifically, the objectives of this study are:

- To assess the current status of the organization and services offered by the Gallatin Canyon Consolidated Rural Fire District in relation to the needs of the community and recognized standards.
- To identify potential problems presented by the growth of the community.
- To identify issues and recommendations for consideration in planning for the future.

METHODOLOGY

The methods used to arrive at the findings and recommendations for this study were as follows:

- Review of Big Sky Fire Department policies and procedures.
- Literature search of applicable National Fire Protection Association (NFPA) Standards, Insurance Services Office (ISO) Standards, Montana Statutes, and recognized good practice.
- Site visit to Big Sky and the surrounding area which included extensive interaction with Chief Revisky and random interviews with citizens.
- Defining and comparing resources and risk with comparable resort based communities.¹

The report is prepared for the sole use of the Gallatin Canyon Consolidated Rural Fire District, at their discretion. It will not be used as a report for any other community and Firescope Mid-America will not distribute it to anyone other than Gallatin Canyon Consolidated Rural Fire District.

FINDINGS

1. The Big Sky Community is an unincorporated area within the bounds of Gallatin and Madison Counties in Montana. As such it is difficult to calculate a permanent population. However, within the defined service boundaries of the Gallatin Canyon Consolidated Rural Fire District (both political and contract service) it is estimated that a maximum population of 20,000 to 25,000 people may be present.² The maximum numbers occur during an extensive ski season.

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2. There is substantial risk within the District's response area. Structures include mobile homes, industrial buildings, a full range of single family dwellings, many apartments, timeshare facilities and condominiums, commercial buildings and high rise hotels. Real estate values are very high due to the natural beauty of the area, its relationship to ski resorts and adjacency to Yellowstone National Park.
3. Three major ski resorts provide the major portion of economic activity in the area. Moonlight and Big Sky resorts have recently combined and will represent one of the largest ski resorts in the Nation. The third entity, The Yellowstone Club, is an exclusive private resort community. The Yellowstone Club is currently contracting with Gallatin Canyon Consolidated Rural Fire District for services. However, they will terminate that contract this year and commence providing their own fire, emergency medical and related services. The Yellowstone Club is not within the taxing boundaries of the District.
4. **The Gallatin Canyon Consolidated Rural Fire District currently operates using a combination system of seven career personnel and a cadre of volunteers.** Its 20 volunteers supplement the career staff that works a rotation of 8 hour days and restricted movement stand-by time. Some of the volunteers bring skills to the organization that supplement fire and emergency medical service (EMS), but they do not necessarily participate in strenuous physical activity. Volunteer response has been very poor over the past two years during daytime work hours with a typical turnout of 2-3 volunteers per call. Recruiting of volunteers is a continuing problem as the cost of living in the area escalates and much of the population is not year around. The salary for career staff is consistent with other fire departments in the area and the benefit package for both career and volunteer personnel is clearly superior.³ Chief Revisky has been in that position since 2003. He maintains a relatively flat and effective organization with one Assistant Chief/Training Officer and Captains for each shift. The Captains also have assigned specialty functions to manage.
5. **The Fire Department operates two fire stations.** Headquarters is located in the Big Sky Community area while Station Two is located adjacent to the Moonlight and Big Sky ski areas. Both buildings are in good condition and appear to be well maintained. They are both functional and esthetically appropriate. The stations are located properly in relation to the levels of current risk. However, there is significant low density/high value residential development throughout the District. Some of this development is very distant from the existing stations. Commercial development near the intersection of US Highway 191 and State Highway 64 is some distance from Station One and will likely require a higher level of protection with increased development, population and traffic.

6. **The current call load** for the Fire Department is approaching 400 per year. This is an increase of 167% in the last 10 years.⁴ There is every indication that the trend will continue through the next decade. Emergency Medical related calls account for approximately 80% of the work load.⁵ In 2004, there were 74 calls dispatched when other calls were already in progress.⁶ This 19% multiple call impact is unusually high based upon the overall call load. However, it is likely driven by the fact that the population and activity in the District is seasonal. There are typically 3 or 4 significant structure fires per year. Although there is a great potential for wildland fires, few develop into large events and are most often associated with slash pile burns. The Department does answer calls for a myriad of “other” problems experienced by citizens and provides a valuable service in doing so.
7. **Special Operations and Community Service** functions are handled by the Department or through mutual/automatic aid agreements. The City of Bozeman Fire Department handles advanced response requirements in hazardous materials and technical rescue. The Gallatin County Sheriff’s Department Search and Rescue Team addresses dive and water related matters as well as search and rescue. The Big Sky Fire Department does have an active fire prevention program that provides fire inspections for commercial buildings on an annual basis. A limited amount of public fire and life safety education is undertaken by the Department. The size of buildings, a local code amendment to the Uniform Fire Code/NFPA 1, and insurance requirements have resulted in a fairly high percentage of fully sprinklered commercial buildings as well as residences in the District.
8. **The Department’s fleet** is in relatively good condition. The equipment is high quality and has been carefully maintained. It currently consists of two Class A pumpers (one is being replaced), two water tenders, three ambulances, one 85 ft. elevating platform/pumper, one mini pumper, one brush pumper and one command vehicle. A second command vehicle is budgeted for the current year. Mutual aid is available from adjacent fire departments, but it is at least 45 minutes away in most cases. The Department often responds into areas that are closer to its stations than any other fire department, yet are not within the taxing district. In most cases these are traffic accidents on highways or medical situations.
9. **Water supply** in the District ranges from excellent to non-existent. Adequate supply appears to be available in the Big Sky Community and in the resort area. Other areas have marginal (for fire protection purposes) public or private service. The Department appears to do a very good job of taking their water with them in tenders. They are experienced in tender shuttle and attempt to sustain water supply consistent with the recommendations of the Insurance Services Office.

10. **Governance** of the District is vested in a five member elected board. Residents interviewed during the site visit indicate that they hold the Department and its Board in high regard. They also believe that the fiscal management of the District is done professionally and conservatively. The budget is well planned and executed. Accounting is accomplished on an accrual basis in Quick Books software by a local accounting firm. The financials are audited annually in accordance with Montana statutes.

11. **Training** for the fire department personnel is a complex matter. Active firefighters are required to achieve and maintain a Firefighter One status from Montana Fire Service Training. Personnel engaged in providing EMS are required to obtain and maintain either an Emergency Medical Technician (EMT)-Paramedic, EMT-Basic, or Montana Medical First Responder. There are several variations of these requirements as well. Medical training is offered through the local community college and other sources. The Department offers a recruit academy for new volunteers and a very well designed curriculum for support personnel. All members are required to attend two 3-4 hour training sessions per month. These sessions are offered weekly to attempt to meet personal schedules. The training program also includes a number of other requirements and opportunities. Nearly all fire service training is consistent with the provisions of the Professional Qualification Standards of the National Fire Protection Association.

12. **The Yellowstone Club** presents some unique challenges for the District. The Club currently pays an annual fee of \$90,000 to the District for fire and EMS. This income will cease at the end of the current fiscal year as the Club has launched its own service. The Yellowstone Club is an exclusive, gated community that is not within the taxing boundaries of the district and thus will not be a revenue source in the future. In theory, it will not be a call load burden since it has its own fire and emergency medical service in place. The Club is, however, an integral part of the economic engine that drives the Community.

13. **Dispatch** for the Department is accomplished from a central 9-1-1 public safety answering point (PSAP) for Gallatin County. The center is managed by others and is equipped with automatic number identifier (ANI) and automatic location identifier (ALI) for fixed telephone lines. The center uses a radio paging system to alert Department personnel and units, although there are areas where signal strength is poor or absent. The center uses the concept of Emergency Medical Dispatch to categorize medical calls and provide dispatcher assistance to callers. It also provides good quality and timely data for Department management.

ANALYSIS

Analysis of the findings indicates that the Gallatin Canyon Consolidated Rural Fire District faces some serious growth issues now and in the future. While great strides have been made over the past decade in meeting the challenges of growth, the service demand will likely outstrip the ability of the current system to cope in several ways. Put in a nutshell, the purpose of the Fire Department is to provide quality care and safety for its constituents in a compassionate and safe manner. The compassion part is relatively easy to achieve with the type of high quality people currently staffing the department. However, the quality and safety components are under attack by the growth issues.

National consensus standards developed by the National Fire Protection Association set out expectations for community fire service deployment for both fire and medical calls. The current standards are stated in terminology for career (NFPA 1710)⁷ and volunteer (NFPA 1720)⁸ fire departments, but they have purposely left the combination fire department unaddressed. In fact, the career standard describes what should be the expectations for urbanized communities such as the Big Sky Community and resort areas. The volunteer standard is much more targeted to the low density suburban and rural portions of the District.

These standards address both the effectiveness and firefighter safety concerns of a community. In summary, they state, for the urbanized area, that there should be 4 firefighters on the scene of a fire call within 5 minutes of being alerted, for 90% of the calls. Further, there should be 15 firefighters on the scene of any structural fire within 9 minutes of initial alerting, again for 90% of the calls.⁹ Medical calls require 2 EMS personnel on the scene of a basic life support call in 5 minutes and 4 EMS personnel on the scene of an advanced life support call within 9 minutes. Both of these medical provisions apply to 90% of calls and clock starts at the time of personnel alerting.¹⁰

As difficult as these standards might be to meet, it is hard to argue that they do not represent reality, both in terms of community expectations and technical merit. The national committees that drafted the documents several years ago did an exhaustive task analysis of how much staffing it takes to achieve a standard outcome for a fire in a 2,500 square foot, one story single family dwelling.¹¹ The time standards are based on fire behavior as described by the standard time-temperature curve for a room and contents fire and upon the survivability documentation of the American Heart Association.

For the Gallatin Canyon Consolidated Rural Fire District, meeting the NFPA 1710 standards would easily put the organization in compliance with NFPA 1720 for the non-urbanized areas. Few combination fire departments can meet the tougher standard overnight. However, recognizing that the community truly has an urbanized component and making compliance a goal is very important for the Department, the Board and the Community.

The Department is part of a broader system of service providers that starts with dispatch and includes other law enforcement, medical and fire services. Unfortunately, most of the latter two players are too remote for rapid assistance or back up. However, it will always be important to work closely with these other agencies to make sure that the customers are getting served as well as possible. It is indeed a fact that few people who call 9-1-1 for an emergency, care what it says on the side of a fire vehicle or who is paying the responders.

Managing the growth of service demand within the district will be a challenge. It will require an increase in some resources as well as innovation and cooperation with the political and business interests in the Big Sky area. One of the very troubling developments is the termination of the contract between the Yellowstone Club and the District. The Club has made a very short sighted and less than community minded decision in its termination of the contract and the establishment of its own service. The reality of this decision is that the Club will only have very limited resources to address any major or difficult incident. They are only fooling themselves if they think that essentially a single company operation can address major or complicated incidents.

The net result for the District of the Club's decision will be a total loss of contract revenue while still being asked to assist the Club's emergency services anytime they are overtaxed, and that could happen relatively easily. Failure to assist the Club could be perceived as a failure to assist in the management of the risk of the overall economic community. Providing the assistance free gratis puts the financial burden on everyone except the taxpayers in the Club.

Disparity in levels of service in adjacent public fire departments is not uncommon and is usually addressed with either automatic or mutual aid. However, when one of the partners is a very small, private agency, the "mutual" part of the equation often gets lost. Finding a balance in this situation will be critical.

RECOMMENDATIONS

The following recommendations are presented to address the objectives of the study and are based upon the findings, the analysis of those findings and the research of applicable standards, practices and experience. Firescope Mid-America would be pleased to provide any clarifications required by the Board or staff.

- 1. Identify a plan to provide at least four trained firefighter/medical personnel on duty at Station One at all times.**

Comment: This recommendation specifically avoids stating whether or not personnel should be career, volunteer or paid on call. However, regardless of the status of a number of the subsequent recommendations, a minimum of four responders should be available in order to comply with the federally mandated two in/two out rule. Failure to do so essentially precludes responders from making any interior fire attack when they arrive. It must be said here that the four people do not represent the proper

number of personnel required to safely and effectively combat a structural fire. However, four is the number required to start the process.

The four personnel would also provide the staffing for the prompt response of two ambulances. Since EMS calls represent nearly 80% of the workload, they would also represent about the same percentage of overlapping calls. Two on duty crews would be a significant advantage.

Whenever the on duty force is depleted by a call, it will be extremely important to page additional personnel to fill the vacancies and to supplement the on scene force. The fact that many ambulance calls involve a distant response and 3 to 3.5 hours makes this action even more important.

2. The District Board, with citizen input, should define urban and extended service areas, and establish response standards for those areas.

Comment: The responsibility to establish acceptable standards for response time and resources falls to the District Board and its staff. With such a diverse response area, the Board should define an urban services area in which citizens could expect urban level services. The Big Sky Community, the resort area and the area along US 191 should clearly be considered for this designation. Less densely built and distant areas should be identified as extended service areas where a lesser level of service should be expected.

In areas designated as needing urban level services, we recommend that the Board adopt the response standards of NFPA Standard 1710 as a service deployment target. Essentially that would mean that the Department would strive to provide a minimum of four trained firefighters on the scene of a fire call within five minutes from paging for 90% of the calls and a minimum of fifteen trained firefighters on the scene within nine minutes of paging, again for 90% of the fire calls. The EMS standard for basic life support calls would be 2 trained personnel on the scene within 5 minutes from paging. The advanced life support calls would require 2 additional trained personnel on the scene within 9 minutes of paging. The EMS standards also apply to 90% of the EMS calls.

For the extended services areas, we recommend that the Board examine the deployment standards set forth in NFPA 1720. This document is much less specific and recognizes the many variable conditions represented by significant distances, terrain and weather. In addition, the Board may want to define some levels of service expectations based on travel distance from fire stations and/or availability of water supply. These measures are consistent with the elements of the fire defense capability ratings used by the Insurance Services Office (ISO) in its rating schedule.¹²

Two other points need to be mentioned under this recommendation. First, there may be some concern that taxpayers in extended service areas are paying the same rate for a lesser level of service. While that may be the case, those who choose to locate remotely from services inherently generate higher costs for those services in the form of specialized equipment (water tenders, brush vehicles, four wheel drive ambulances, etc.). These more remote properties offer greater challenges and often additional risk for personnel as well. Ultimately, there is very little basis for an argument in favor of differing rates for fire and EMS services.

Finally, it should be noted that NFPA 1710 and 1720 are differentiated on the basis of career versus volunteer fire services. While that is the basis upon which these consensus standards were developed, we think that they also make a rational differentiation for urbanized and rural environments, regardless of the employment model used.

3. The Board should seek to form critical partnerships with the corporate members of the community in order to achieve its goals.

Comment: The large corporations that operate ski resorts and even some smaller businesses must be persuaded to be more than passive tax payers in the Board's effort to provide quality fire and EMS services. Corporate participation in support of the District can and should have a broad spectrum. They should be involved in funding (above normal taxing authority) the special needs that are created by their existence.

The business community also needs to be on board supporting decisions to enhance built in fire protection requirements, service fees, seasonal resource requirements, release time for volunteers, etc.

Lacking a municipal government to provide the overarching umbrella of governance in the Big Sky area, the District will need to work hard to identify and implement community values for public safety.

4. Establish an expanded volunteer/paid on call force of trained fire and EMS personnel using innovative approaches that match the needs of the District with the needs of personnel.

Comment: It is probably fair to assume that it will be many years before the District could or should employ a career force of 54 people, the optimal number required to meet operational standards using the normal 56 hour average work week shift rotation of three shifts.¹³ Accordingly, the District needs to explore creative ways to find and retain a diversified set of volunteers. For purposes of this discussion, volunteer and paid on call firefighters will be referred to as volunteers.

It is recognized that the traditional sources of volunteers may not exist in any significant way for the District. The cost of housing in the area continues to escalate and the number of partial year residents increase. Both of these factors are likely contributors to a seriously diminishing number of residents willing to be active and able volunteers. Incidentally, the availability of community based volunteers is a critical issue throughout the volunteer fire service in the United States

Use of a menu approach to recruit and retain volunteers is already underway in the Department. However, we would encourage the expansion of this effort. It needs to recognize that potential volunteers will likely have different needs. Providing the very generous health benefits available from the District may be important to some volunteers, but not to others. Some may want training for future career opportunities. Others may be long term residents who need supplemental income for their services. Others yet may be seasonal in nature, but possess a certified skill set that is needed by the Department.

The best approach to retaining an adequate number of trained personnel is to have several different programs for and sources of volunteers. This should keep the program from being severely imperiled by the failure of any one particular part of the program or a single demographic change.

Programs to consider would include the use of college students as residents in or near the stations as part of internships or work study programs. This also works for seasonal employees of the resorts. While these temporary personnel should not be the majority or core group, they can significantly diminish the workload on other long term volunteers at the times of highest demand. And, there is usually a valuable benefit to the young person in terms of career sampling or interpersonal skills development.

As indicated in recommendation three, the corporate partners need to play a major role in staffing the volunteer forces. This means that they must be persuaded to allow interested and able bodied employees to volunteer and not be penalized for their participation in either emergency calls or training. The business community will need to understand that this is the very best way that they can support the public safety needs of the Community and their own interests.

Finally, it is critical for the management of the Fire Department to understand the needs of the volunteers. They cannot and should not be treated like second class citizens either by management or career fire service staff. Most volunteers choose to affiliate with a department to be active. Occasional or incidental use of the volunteer force is a precursor for losing many of them. Maintaining different standards for training or performance is also a negative factor. Fire and EMS situations require certain skill sets and the customer seldom cares about the compensation process for someone responding in their time of need. The Fire Department can and should be a source of pride for the community and all of its members in every respect.

5. The District should examine the possibility of requiring more installed fire protection.

Comment: Structural fires are uncommon in the community at present. Records indicate that the District will experience about three to four serious fires per year. However, there is evidence nationally that the built environment is becoming a more hazardous place with the increasing use of flammable synthetic materials for nearly every aspect of our lives. Accordingly, as more structures are built and materials change, an increase in these numbers can be expected.

Structural fires are dangerous, resource consuming events. They threaten building occupants and tax fire service resources to their limits. The only significant way to diminish the threat and thus reduce the impact on resources is to require the installation of automatic fire extinguishing systems---or essentially automatic sprinkler systems. The District has a strong program in this area already. However, as a part of a strategic plan for the long term management of the fire problem, more systems would make sense. This would be particularly so in target hazard properties where fires would quickly outstrip the ability of the Fire Department to control them, and in extended service areas where response times are long.

6. The District should negotiate a new service agreement with the Yellowstone Club to insure either financial remuneration or in kind services for support of the Club's emergency services.

Comment: Few if any fire and emergency service organizations can exist as an island. The emergency services established by the Yellowstone Club may be staffed by exceptional personnel, but they will still need the assistance of the District to address serious fire or EMS incidents. It is patently unfair to residents and businesses in the District to provide the "safety net" for an adjacent entity free of charge.

Mutual aid¹⁴ or automatic aid¹⁵ agreements may be the proper solution. However, the mutual aspect of the agreement should be made particularly clear with both entities understanding the other's needs, resources and expectations.

Since the Gallatin Canyon Consolidated Rural Fire District brings so much more in terms of personnel and equipment resources to the table, it probably makes more sense to seek some financial resources from the Club, even if there might be a mutual aid agreement.

7. The District should enhance its efforts in the area of public fire and life safety education.

Comment: While this effort in the fire service is typically associated with teaching/learning activities with young people, it really is important for any community. The District should work to define the different target audiences in the Big Sky area and focus more attention on preventing situations that require fire and

EMS. For example, it might be wise to provide on-going fire safety and first aid training for the highly transient staffs of resorts. Access to the elderly and young populations would also pay dividends since they are statistically the highest “at risk” groups in accident statistics. These services not only provide valuable education for the community, but also a source of pride and positive public relations for the Department. The opportunities are nearly endless if motivated career and/or volunteer staff can be found.

8. The District should retain a fleet consistent with ISO recommendations including reserve equipment.

Comment: It is important to retain at least one pumper in good, operable condition as a reserve. This may require some rehabilitation of a retired engine and some duplicate equipment. However, maintaining a reserve engine in a condition of readiness (equipped) is not only a good idea for compliance with ISO recommendations, but also for the good of the District.

9. The Board should change audit firms on a three to five year basis as a matter of practice.

Comment: The Government Finance Officers’ Association¹⁶ recommends that audit firms be changed every three to five years just to provide a new set of eyes. This is no reflection on the quality of financial services or audit services.

ACKNOWLEDGEMENTS

Firescope Mid-America wishes to express its sincere appreciation to Chief Jason Revisky for his responsiveness, candor and hospitality. It is obvious from the citizen contacts that were made during the site visit that the fire services are held in high regard and with good reason. The Gallatin Canyon Consolidated Rural Fire District operates a very high quality operation and is certainly up to planning for and meeting the challenges of the future.

APPENDX A
REFERENCE NOTES
AND
EXPLANATORY INFORMATION

Reference Notes:

1. Information for comparisons was gathered from the fire services in Breckenridge, Steamboat Springs and Vail, in Colorado and Snowbird/Alta, in Utah.
2. Information provided by Chief Jason Revisky during site visit to the Big Sky Community.
3. Mountain States Employers' Council, Survey of Governmental Employers; Denver, Colorado; 2004
4. Information provided by Chief Jason Revisky during site visit to the Big Sky Community.
5. Ibid.
6. Ibid.
7. National Fire Protection Association Standard 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Career Fire Departments; National Fire Protection Association, Inc., Quincy, Massachusetts, 2004.
8. National Fire Protection Association Standard 1720, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments; National Fire Protection Association, Inc., Quincy, Massachusetts, 2004.
9. NFPA Standard 1710, section 5.2.3.1.1; section 5.2.3.2.1 and section 5.2.4.1.1.
10. Ibid, section 5.3.3.3 and section 5.3.3.4.
11. Ibid, section A5.2.4.2.1
12. Fire Insurance Rating Schedule, Insurance Services Office, New York, New York, 2002.
13. Three shifts of 18 people in order to achieve a minimum staffing of 15 people on duty at all times. All would work an average 56 hour per week work schedule.
14. Mutual aid is defined as assistance requested from another fire department as a function of a specific request for a specific incident.
15. Automatic aid is defined as assistance requested from another fire department as at the time of dispatch without a specific request.
16. Governmental Accounting, Auditing and Financial Reporting, Sixteenth Edition, Government Finance Officers' Association, Chicago, Illinois, 2005.