

EXECUTIVE SUMMARY

Overview

In February 2009, Washoe County commissioned Diamante Partners, LLC to develop a comprehensive fire and fire-based emergency medical services Master Plan that included an assessment of existing operations and a series of recommended methods for improving and/or enhancing existing Fire and Fire-based Emergency Medical Service delivery in the unincorporated areas of Washoe County, Nevada, governed by the Board of County Commissioners (BOC). At a minimum, the Master Plan outlines existing service delivery and operational procedures, but also includes recommendations related to potential consolidations, service equity and new opportunities to achieve economies of scale, and enhancements to governance.

Project Approach and Methodology

Diamante Partners based its approach to this Fire and Fire based EMS Master Plan as it does with all of its management and community reviews, first by recognizing the importance of melding improved performance with the community's desire of maintaining the local identity and philosophy and second, by measuring against recognized standards and best practices. The effort to derive the recommendations for consideration and ultimately the development of this Fire and Fire-Based EMS Master Plan was organized into five (5) focus task areas or "Themes" to ensure that all sections of the Project Scope were addressed. Diamante Team Members were integrally involved in each theme area infusing both their technical experience and contemporary best practices into a synthesized set of recommendations that cover:

- Fire suppression/operations
- Fire prevention
- Fire Based Emergency Medical Services
- Administration/Management and Governance
- Financial structure and impacts

Engagement of local and state stakeholders, federal organizations and the private sector, as well as engagement of the community was a corner stone to this effort. Diamante engaged target stakeholder groups and solicited feedback through several face-to-face meetings, briefings and conference calls. Diamante also took advantage of well established web based conferencing tools to host meetings with team members and interested parties.

Other Fire Agencies in Washoe County outside of the scope of this study

Diamante took the opportunity to also review and discuss with the City of Sparks Fire Department and the North Lake Tahoe Fire Protection District how they currently serve their citizens and provide fire

and life safety services. The Diamante team appreciated the opportunity to review both agencies Standards of Cover documents, their cooperative intent to work with the other fire agencies within Washoe County as well as their commitment to their respective communities. Both fire agencies were outside the scope of this study and as such are not part of any associated findings or recommendations.

Project Background

Throughout the facilitation of this study, the Diamante Team executed a series of concurrent and consecutive actions that included:

- Ongoing interaction and communication with the Washoe County Fire Coordinator and Project Manager.
- Scheduled face to face data gathering and planning meetings with stakeholders such as homeowners, community and labor groups, local political leadership, identified fire and EMS departments and agencies and other selected members of the respective communities.
- Scheduled conference call meetings with stakeholders, identified fire and EMS departments and agencies to continue collaboration and information sharing.
- An integrated use of information technology at several levels to promote and facilitate collaboration among the team (Diamante and project stakeholders), seek feedback and other critical data from stakeholders and identified parties and to facilitate management of the project.



As a part of this review, the Diamante Team, working with various stakeholders, identified and reviewed existing and available planning documents and procedures within the designated fire departments and Washoe County, as well as best practices and benchmarks that would support fire and EMS service assessment and delivery. Diamante utilized all applicable standards, ordinances and guidelines including the provisions of NRS 474 as it relates to formation, operations and governance of Fire Protection Districts, the National Fire Protection Association (NFPA), the International Code Council (ICC) and current fire and life safety ordinances, the Insurance Service Office (ISO) and others to conduct and/or support this comprehensive analysis and any findings and recommendations. A summary list of interviews, calls and/or meetings conducted throughout the course of this study are listed below.



Government Officials/Organizations

- Washoe County Commissioner Larkin
- Washoe County Commissioner Jung
- Washoe County Commissioner Weber
- Washoe County Commissioner Breternitz
- Washoe County commissioner Humke
- Washoe County Manager Simon
- Washoe County Fire Coordinator Latipow
- Washoe County Director of Community Relations Carter
- Fire Chief Mike Greene, Sierra Fire Protection District (multiple interviews)
- Three Shift Battalion Chiefs, Sierra Fire Protection District
- Fire Chief Mike Brown, North Lake Tahoe fire Protection District (multiple interviews)
- Fire Chief Andy Flock, City of Sparks Fire Department
- Former Fire Chief Wagner, Reno Fire Department/Truckee Meadows FPD
- Interim Fire Chief Alameda, Reno Fire Department/ Truckee Meadows FPD
- Deputy Fire Chief Neilson, Reno Fire/Truckee Meadows FPD
- Divisions Fire Chiefs DuRousseau and Johnson, Reno Fire Department/TMFPD
- Interim City Manager Dreska, City of Reno
- Reno City Councilmember Aiazzi
- Reno City Councilmember Zadra
- Fire Chief Cannizzaro, Volunteer Fire Chiefs Association
- Fire Chief Gooch, Gerlach Fire Department
- Director Vandenberg, City of Reno IT Department
- Washoe County Regional 911 Dispatch Center
- Incline 911 Dispatch Center
- Director, Washoe County Department of Public Health

Private individuals/Organizations

- REMSA CAO Jim Gubbels and President Patrick Smith
- Dr. Robert Parker, Arrow Creek Homeowners
- Volunteer Fire Firefighters Association (multiple interviews/venues)
- Reno Professional Firefighters, Local 731, as well as fire labor representatives from Sierra FPD, NLTFPD and the Reno International Airport Fire Department.
- TMFPD & SFPD Financial Consultant Ms. Mary Walker (multiple interviews)
- Former Reno Fire Division Chief Marty Scheuerman (multiple interviews and advisory on development of the SOC documents).

Meetings Attended/Public Outreach

- Developed and implemented, in coordination with the County Fire Coordinator a Community out-reach and Communications plan.
- Presented a formal project overview and methodology briefing to the Community Advisory Board (CAB) Chairs and solicited feedback on development of project survey.
- Developed and distributed electronic public survey and coordinated public distribution with Sara Tone and Lorrie Adams from the Washoe Office of Community Relations.
- Facilitated and presented formal project overview and update at a Town Hall meeting held at the County Administrative Building. In addition, during the town hall meeting, Diamante solicited feedback and input on fire service issues and made available hard-copy public surveys.
- Attended and presented formal project overview and updates at three (3) separate Joint Fire Advisory Board (JFAB) meetings. It is important to note that during these JFAB meetings, Diamante representatives engaged and discussed the Master Plan development and relevant fire service delivery issues with members of the public and other community stakeholder groups including representatives of the Arrow Creek and West Washoe Community Groups.
- Attended a Volunteer Fire Chiefs Meeting and presented the project and solicited input.
- Prepared and distributed a special survey and letter for all volunteer departments, companies in Washoe County.
- Attended and briefed at County Commissioners meeting.
- Worked with Washoe County IT Department and County Community Relations Offices to establish Master Plan update and information on the County Web Site.
- Established a Master Plan information and update site on the Diamante Web Site.
- Produced and distributed through the County and Diamante Web Sites four (4) Project E-Newsletters (spring, summer, fall, winter editions).
- Established project BLOG site for community discussion/dialog.

Public Survey and Information Gathering

An integral component of this study included the development and distribution of a Public Survey that was designed to solicit input from the community on perceptions/feelings, observations and suggestions regarding of Fire and EMS delivery in the unincorporated areas of Washoe County. Two hundred and eleven (211) individuals participated in the survey either via the web or by mailing in a hard copy response. The survey, while intended for all residents to be able to participate, due to the limited number of respondents and methodology the survey was not statistically validated. The survey used a self-selected method which means people decided whether they wanted to participate or not, and had to initiate action by filling out a form either online or mailing in a hard copy.

The survey was available to participants for over six weeks. Working with the Washoe County Community Outreach Coordinator a link was established to the survey on the Washoe County website as well as on the Diamante website. The link to the online survey and a hard copy format was also sent

out to the 15 Citizen Advisory Board (CAB) Chairs and County e-mail alerts were sent to subscribers. The Diamante Team worked closely with the County's Community Outreach Coordinators to send out notifications regarding the survey through their usual methods, networks and mailing lists. Hard copies of the survey form were made available and collected at the Town Hall meeting. Information about the survey was also included in the Project Newsletter that was broadly distributed electronically.

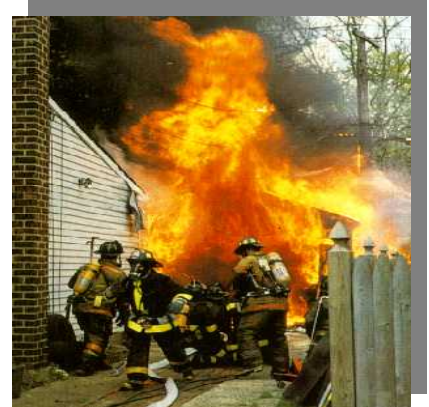
Based on the responses/comments provided, the key issues/concerns identified by the community through this survey were:

- ***Response time for medical emergency calls***
- ***Concerns around financial/cost sharing and service equity***
- ***Fire-based EMS paramedic staffing/transport and response coordination with private ambulance service***
- ***Inefficiency of current governance structure***
- ***The need for a fire station in the Arrow Creek area***

Policy Decisions/Issues

Washoe County faces unique challenges driven by its size, diversity of community and land use decisions. Like most other local government agencies throughout the country, there is a constant struggle between providing key services, securing funding to support those services and community expectation.

Current economic conditions create even greater difficulty in funding the most basic community services. Coupled with this economic struggle is the challenge of a large county with many scattered small communities wanting, and needing, fire and emergency medical services. Many of these communities are extremely remote, at the end of unimproved roads. Some are affluent new developments that were not well-planned for emergency ingress and egress. In some cases residents who have chosen to live in remote areas have not come to terms with the inherent trade-offs in emergency response times.



As reduced revenues continue to be a reality, the Board of County Commissioners will face policy decisions on what service levels can the County afford to provide. The recommendations of this master plan provide opportunity for efficiency and cost savings but will require a willingness to do business differently.

The Master Plan



Section One of the Master Plan consists of the review of current operations and an assessment of appropriate standards (benchmark) for community fire operations and emergency response. This section includes a fire station analysis and feasibility strategies for the overall organizational design, structure, and governance of the emergency services system as well as provides a brief analysis, including financial comparisons, of each strategy. This section culminates in a recommendation for the long-term organizational strategy deemed most effective and efficient.

Section Two of the Master Plan comprises the “Standards of Response Coverage” studies which are those written procedures that determine the distribution and concentration of the fixed and mobile resources of a fire and/or EMS organization. This section includes the development of a Standards of Cover Deployment Analysis for Washoe County and the departments and agencies within the scope of this study. The National Fire Protection Association (NFPA), National Emergency Number Association (NENA), Insurance Services Organization (ISO), fire and life safety codes and Occupational Safety and Health Agency (OSHA) standards were reviewed and incorporated in the studies and/or served as the guidelines by which Department decisions about distribution, concentration, and staffing of line companies were assessed. Population, certain special hazards, and other factors were also considered.

Section Three of the Master Plan consists of the financial analysis of costs related to addressing critical deficiencies and provides associated recommendations on financing mechanisms. This section identifies overall economic deficiencies and will provide a current status of the financial condition and analysis of each local fire agency included in this study. Wages and benefits along with all the operational costs associated with the volunteer fire organizations are compared with a full 24 hour staffing model in those specific (enhanced) areas identified in the Standard of Coverage Analysis and as requested by local Washoe County officials. Included is an analysis of the financial impacts including a re-examination of potential cost savings utilizing a consolidated fire agency model and a review of potential service delivery changes due to growth and development impacts along with local, state, and national regulatory changes or additions.

It is important to note, that prior fire service studies provided a great deal of insight of the current structure and options that have been considered in reorganizing the fire service delivery system. In particular, the Walker & Associates studies of fire service alternates and financial analysis were important in clarifying the community’s intention and perspective.

Identified Themes/Concerns

- Governance and the ability of the Board of Commissioners to integrate/participate in critical actions/decisions of the City of Reno, City Council as they impact Truckee Meadows and the regional fire services as a whole.
- Fire Station siting/location concerns, the current locations and future relocation or addition of new fire stations to serve growing communities or demands.

- Response beyond jurisdictional boundaries, or “boundary drop”, where the closest appropriate resource is not dispatched and/or when additional resources are needed, the closest, most appropriate resource is also not dispatched.
- Dispatch of fire units after REMSA has evaluated the call and determined the necessity of fire response. This issue is complex due to the “process” (or lack there of) employed that has the initial 911 call going to the primary fire dispatch (ECOMM) then transferred to REMSA dispatch. If at that time it is determined by REMSA that a fire unit is needed, REMSA dispatch pages ECOMM and the dispatch of fire unit(s) is initiated. This additional shuffle causes delays in the fire dispatch.
- The inability to assess performance data due to the lack of dispatch information. This was the primary issues surrounding the need to gather response information in the Fractile measurement and consistent with the geo codes of Washoe County.
- Volunteer use, training and professionalism were a discussion point with elected officials and firefighters alike. There were two primary concerns: 1) that the Volunteers are not being dispatched when their services are needed and could have a positive impact, and 2) Lack of training, personal protective equipment and related command and control capacity.
- The inability to increase service levels from basic life support (BLS) to either intermediate or advanced life support (ALS).

Summary of Major Findings

Our review process identified several significant findings that contribute directly or indirectly to fire and fire-based EMS service delivery in the unincorporated portions of Washoe County.

1. While fire service delivery in Washoe County appears to be meeting the basic needs of the community, there are significant opportunities to enhance and streamline operations for better services, while maintaining fiscal accountability and efficiency.
2. Washoe County would be best served by the consolidation of fire agencies and the establishment of a Joint Powers Authority (JPA) governance model, consisting of the City of Reno City Fire Department, Truckee Meadows Fire Protection District, Sierra Fire Protection District and Washoe County.
3. Streamlining/consolidating administrative, management, training and fire prevention services through a single governance model would save money and increase efficiency and effectiveness.



- 4. Better dispatch and response time criteria and tracking is needed for fire and emergency services. Washoe County needs to move to the tracking of Fractile Response Times (FRT) by Geo Code.
- 5. More support and better integration of volunteer fire departments and personnel is needed to maximize this resource, help build additional capacity and provide reliable services to areas and communities served by volunteers.
- 6. For more effective EMS service delivery, the REMSA agreement should be revisited and the BOC should seek ways to enhance that agreement to integrate the fire service into a more efficient delivery model by considering first responder Advanced Life Support Services.

Summary of Key Issues and Recommendations

<p>Issue: Redundancies in governance, training and in many cases inefficient response to fire and fire assisted EMS calls among fire agencies located within unincorporated Washoe County result in inefficient and ineffective service delivery.</p> <p>Recommendation: Establish a unified single fire agency, through the establishment of a Joint Powers Authority (JPA) governance model that includes the City of Reno Fire Department, Truckee Meadows Fire Protection District, Sierra Fire Protection District and Washoe County via consolidation of SFPD and TMFPD that ultimately eliminates boundaries, duplicative management positions, and conflicting operational and administrative policies.</p> <p>Fiscal Impact: Potential Savings from \$800,000.00 - \$900,000.00</p> <p>Timeline: One Year</p>
<p>Issue: Identified need for new SFPD Fire Station in Arrow Creek</p> <p>Recommendation: Establish a Joint Powers Agreement (JPA) with the City of Reno fire Department, Truckee Meadows Fire Protection District, Sierra Fire Protection District and Washoe County. Once the JPA has been established a very comprehensive fire station location study can occur which will likely yield opportunity for at least two fire companies that can be relocated to fill in the gaps of fire protection service to the newly formed JPA. We believe this is the most prudent, cost effective and efficient way to staff the newly constructed Arrow Creek Fire Station.</p> <p>Fiscal Impact: Equipment costs, est. \$898,537.00; Staffing costs est. \$1,500,000.00 annually (<i>offset if the consolidation is implemented</i>).</p> <p>Timeline: Two Years</p>



Issue: Effectiveness of Regional EMS delivery and fire service integration.

Recommendation:

- A. Commission a study to re-evaluate and assess the Washoe County EMS delivery system. This study should review the parameters of the existing Franchise Agreement, which in its current form, provides little flexibility for fire agency input or participation.
- B. Initiate discussions with the Washoe County Board of Health to develop a joint venture with its public safety partners, particularly the fire agencies to develop a new approach for EMS delivery. Items to consider include fire based paramedic services to increase service delivery of advance life support (ALS).

Fiscal Impact: Est. cost of study \$150,000.00 - \$200,000.00
Timeline: One Year



Issue: Effectiveness of Regional EMS delivery and fire service integration.

Recommendation: Implement Enhanced Emergency Medical Dispatch (EEMD) at Washoe/Reno 9-1-1 Center (ECOMM) to determine the most appropriate level and type of response at the receipt of the initial 9-1-1 call.

Fiscal Impact: Est. \$300,000.00. Would need to be negotiated with the City of Reno and REMSA.
Timeline: One Year



Issue: Inability to assess performance due to the lack of dispatch information

Recommendation:

- a. Adopt response time policy for all fire departments governed by the Board of Commissioners that is consistent with applicable National standards.
- b. Initiate discussions with the Washoe/Reno 9-1-1 Center (ECOMM) City of Reno to adopt a system for all fire agencies documenting and reporting response times in a Fractile Response method.
- c. The Washoe County Board of Commissioners should initiate discussions with ECOMM and the Reno



City Fire Department to implement a Dispatch/RMS system capable of tracking emergency responses by Census Tract Areas, Fractile Response Times, Geo Codes, Mobile Data Terminals for all apparatus and Continuous Quality Improvement Program. (CQI)

Fiscal Impact: Estimated \$600,000. Cost share to be negotiated.
Timeline: One Year

Issue: Need for additional support and integration of Volunteer fire companies.

Recommendation: Negotiate and establish firm dispatch policies with Washoe/Reno 9-1-1 Center (ECOMM), City of Reno, local labor organizations, and monitor implementation by tracking dispatch information based upon Fractile Response Times (FRT) and Geo Codes.

Fiscal Impact: None
Timeline: Six months

Issue: Need to more aggressively seek out and apply for federal grant funds.

Recommendation: Actively seek out and apply for grants from the Department of Homeland Security, Federal Emergency Management Agency and other federal agencies to acquire funding opportunities for communications, infrastructure, protective equipment and apparatus enhancements and support of training/exercises.

Fiscal Impact: Est. potential savings in general fund resources from the hundreds of thousands to millions dollars, depending on project/item.
Timeline: Six months

The recommendations included in this Master Plan were developed using available data provided by the County and other sources and are based on the extensive professional experience of the Diamante team. In many cases, there was limited quantifiable data to conduct a full analysis that is statistically defensible. Additional issues and their recommendations are contained in each section of the Master Plan document for consideration by the policy body.

Fire Station Relocation Opportunities - Washoe Valley

There has been much discussion regarding either the closure or relocation of Truckee Meadows Station 16 located at 1240 Eastlake Boulevard, Reno, Nevada and Sierra Fire Protection District 30 located at 3905 Old



Highway 395, Washoe Valley, Nevada. Each station has a relatively low call volume, TM 16 at 433 emergency responses in 2008 and SFPD 30 at 180 emergency responses in 2008. Station 16 and Station 30 are located 5.24 miles from each other across from Washoe Lake. One proposal that has surfaced is that TM should relocate Station 16 to a location near Viola Way and US 395 North. Sierra Fire has also suggested that the crew now working at Station 30 be relocated to the yet to be constructed fire station at Arrow Creek.

There is a significant infrastructure project now under construction that could dramatically effect fire department response times. The realignment and construction of US 395 from the Reno area to Carson City will dramatically reduce the current amount of traffic on 395. Currently US 395 North is a very busy and dangerous roadway that slows significantly fire department response around Washoe Lake.

Freeways are designed to primarily serve regional traffic in a safe and efficient manner. The existing US 395 has served double duty by providing a regional connection between Reno and Carson City, while also providing access to local residences, businesses, and ranches along the corridor. The increasing regional and local traffic along US 395 which is a four lane, undivided highway with some sections divided by k-rail, with un-signalized intersections, and multiple accesses for residents and businesses has become increasingly congested. Therefore, the I-580 freeway extension will have six lanes of traffic (three in each direction), higher speeds, and controlled accesses at on/off-ramps to accommodate the regional through traffic. Local traffic will continue to use the less congested US 395, which will generally remain unchanged.



Washoe Valley section

Diamante Partners does not recommend the closing or relocation of either fire station at this time, due to the lack current response time data; the traffic congestion of US 395 North; and that the residents that those stations serve have become accustomed to having a paid fire station located in their respective neighborhoods. Diamante does recommend that any fire station relocation plans be put on hold until the realignment/construction of US 395 North is completed (scheduled 2011), which would allow the fire agencies the ability to determine with more accurate and real world data if the

construction of US 395 helps responding engine companies traverse the area more efficiently. In addition, a detailed response time analysis is necessary to evaluate how the major improvement in traffic flow affects response time's through-out the local area. Diamante Partners also recommends that both fire jurisdictions enhance their data gathering computer systems and networks to evaluate fractile response times to get a more accurate analysis of how long it takes these fire stations to service their specific emergency responses.

Volunteer Fire Stations

The County, Truckee Meadows FPD and Sierra FPD, need to track actual and future growth/development around their existing volunteer fire departments to determine when and if those departments should transition from volunteer staff to a paid engine company. This decision should be based on changes in demographics and acquired call volume data. In the past, new communities that were established, and expressed a need for fire protection have established volunteer fire organizations. Communities should now be evaluated, at least annually, for changes in fire protection needs or service requirements with special attention given when new development or additional growth is forecast.

Arrow Creek

The lack of a fire station in the Arrow Creek/Thomas Creek area was noted in the "Washoe County, Nevada Description of Fire Service Deployment Assets, March 2008 Emergency Services Consulting, Inc" study. Our analysis of existing response times into the Arrow Creek area, the assessed value of homes and the current population support the argument that the Arrow Creek/Thomas Creek area is in need of a full time (paid) fire station. A sample emergency response run from available data obtained from the closest fire station, SFPD Station 38 to the Clubhouse located at 2905 Arrow Creek Parkway shows a distance of 5.19 miles. A fire station built and staffed in that area would improve overall response times based upon nationally recognized standards and ISO recommendations on fire station spacing, as well as improve the concentration of existing resources for the entire Sierra Fire Protection District, or for a future Joint Powers Authority Fire Agency should one be formed.



Arrow Creek Fire Station

Estimated construction time 2 years, which includes public input, architectural review, design, development and construction with an estimated opening date of December 2012.

Equipment needs- Type 1 and Type 3 engine and appropriate tools and equipment. Equipment specifications prepared and out to bid no later than January 31, 2011 with the anticipated construction timeframe of 365 days. Total payment due 2012.

Type of Equipment	2010 cost	2011 cost +5%	2012 cost +5%
Type 1 engine/equip	\$510,000	\$535,500	\$562,275
Type 3 engine/equip	\$305,000	\$320,250	\$336,262

Diamante Partners recommends construction of an Arrow Creek fire station. Staffing and equipment for the Arrow Creek station would currently require either new funding or resource reallocation from an existing Truckee Meadows or Reno fire station, details are in the Master plan.

Area Wide Fire Station Distribution

The other existing fire stations North of Township 22, within the Sierra Fire Protection District and the Truckee Meadows Fire Protection District, operating under the current Inter-Local Agreement seem to be well situated to provide services to the community in a cost effective manner. The development of a Joint Powers Fire Authority between Reno Fire, Truckee Meadows Fire Protection District and Sierra Fire Protection District would result in the ability to develop and regionalize a long term fire station location and or relocation plan with the prime objective to site fire stations for more optimal response times to the region.

Standards of Response Coverage (SOC)

In correlation with interviews and an exhaustive assessment of existing operational protocols, financial statements and response related criteria Diamante developed individual Standards of Coverage studies for each of the following fire agencies: Truckee Meadows Fire Protection District, Sierra Fire Protection District and the Washoe County Fire Suppression Services. The Standards of Response Coverage are those written procedures that determine the distribution and concentration of the fixed and mobile resources of a fire and EMS organization. SOC documents include current station locations and staffing versus the standards as identified in nationally accepted processes; staffing of fire companies; historical measures of emergency workloads in the County/jurisdiction; and computer mapping and recording tools to analyze the impact of fire station locations.