Identifying How Rapid Growth on Tribal Properties Affect the Resources of a Suburban Fire Department

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CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have use the language, ideas, expressions, or writings of another.

Signed: __________________________
Abstract

The problem: Marysville Fire experienced rapid growth from a non-tax paying entity. If the impact was not measured, life safety would have been undermined. The purpose was to measure the expected growth and impact.

Research questions included: (a) what was the projected growth on tribal properties similar to Marysville? (b) What were the effects on Marysville? (c) What initial response plans can be provide? A descriptive research method was used.

The Puget Sound Library, National Fire Academy, and World Wide Web were utilized sources. A telephone survey was conducted. Results showed options for payment in lieu of tax methods from various entities.

Recommendations: (a) maintain communications. (b) Create a staffing plan. (c) Create a training plan. (d) Offer education.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>3</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>4</td>
</tr>
<tr>
<td>Introduction</td>
<td>5</td>
</tr>
<tr>
<td>Background and Significance</td>
<td>6</td>
</tr>
<tr>
<td>Literature Review</td>
<td>10</td>
</tr>
<tr>
<td>Procedures</td>
<td>17</td>
</tr>
<tr>
<td>Results</td>
<td>19</td>
</tr>
<tr>
<td>Discussion</td>
<td>23</td>
</tr>
<tr>
<td>Recommendations</td>
<td>27</td>
</tr>
<tr>
<td>References</td>
<td>29</td>
</tr>
<tr>
<td>Appendix A Fire Department with Tribal Response Survey</td>
<td>31</td>
</tr>
<tr>
<td>Footnotes</td>
<td>35</td>
</tr>
</tbody>
</table>
Introduction

In the late 1980's the Federal Government gave the right for Indian nations (Cabazon, 1987) to conduct Las Vegas style gaming on reservation properties. Many Indian nations that took advantage of the Supreme Court ruling and are expanding rapidly to enhance the new financial gain, the Tulalip Tribes is one that is benefiting from the growth. Part of the Tulalip reservation is located within the Marysville Fire District (MFD) and its growth is affecting its response capabilities. The problem is if the impact on existing response standards is not measured, the life safety of firefighters and citizens will be adversely impacted. Much of this expansion includes new technology such as protection systems for high rise occupancies that suburban department like MFD have never before encountered. The purpose of this research is to measure the expected growth, and what the impact is on the staffing levels. Indian tribes recognized by the federal government as sovereign nations are not required to pay a number of taxes, including property tax by which MFD is funded. Payment in lieu of taxes for emergency services provided is a key focus in this problem.

Using a descriptive research method, the following questions will be answered: (a) what is the projected urban growth on tribal properties with response characteristics similar to the Marysville/Tulalip reservation? (b) What effects will the projected impacts have on the existing response standards for MFD? (c) What initial response plans can the affected properties provide that will aid in fire/rescue responses?

Utilizing the answers from the questions, guidance for cooperative involvement between Tulalip Tribal authority and MFD will be identified for the ability to create a unified training plan for public safety.
Background and Significance

This Applied Research Project (ARP) is linked to the Executive Development course at the National Fire Academy (NFA). This course offered the opportunity to study change management, research and leadership, all of which directly relate to this research project.

In 1988, the United States Congress enacted the Indian Gaming Regulatory Act (IGRA, 1988) which specified that Native American tribal entities are allowed to operate casinos and bingo parlors. The intent was that tribes operating such enterprises would be able to enhance the way of life for tribal members by offering better medical benefits, housing, and job opportunities. For many of the tribes who took advantage of the congressional act, gaming has been a financial windfall. The National Indian Gaming Commission indicated that in 2006, there are approximately 400 Indian gaming establishments in the United States with revenue generated by these establishments close to $18.5 billion. (Wikipedia, 2008). This type of monetary influx is often accompanied by fast and unforeseen impacts to the area not only where the casinos are built, but also in the surrounding community as well.

MFD is located in the Northern Puget Sound region of Washington State. MFD's response area is 54 square miles and serves approximately 80,000 people. Interstate 5, the main interstate that runs from Canada to Mexico on the west coast, dissect the district. Two major metropolitan cities are close by: Seattle is 50 minutes to the south, and Vancouver B.C. is 90 minutes to the north. The Tulalip Indian Reservation sits directly on the west side on Interstate 5 and comprises 34% of the total response area of MFD. In 1993, the Tulalip Tribes took advantage of the 1988 congressional act and built their first casino, expanding it 3 times before the decision was made to build a larger, more lucrative operation, destined to eventually become a full casino/resort, fully visible from Interstate 5.
Before gaming began on the Tulalip reservation, MFD provided fire protection and emergency medical services to a portion of the reservation properties and continues to do so today. Aside from tribal property growth, Marysville has been expanding within its boundaries. With housing prices experiencing a rapid growth in the past decade, Marysville has become a bedroom community for Seattle. As such, incident type has not changed dramatically off tribal property, just call volume from residential growth (MFD, 2007). Tribal growth has brought rapid call type change.

The Tulalip Tribes operate as a sovereign nation, which is self-governing and not ruled by any other entity. With this comes an operational difference that must be confronted by MFD. Normally, the fire district imposes a tax levy rate which is collected annually along with any local, state, and federal taxes that are imposed. Since Tulalip Tribes operate as a sovereign entity, taxes cannot be imposed for emergency services provided as it is with the rest of the MFD. It is up to the district and the tribe to agree upon a payment in lieu of taxes method (PILT).

The National Gaming Impact Study Commission (NGISC) identifies three types of regulated gaming. Some states only allow type I or II, Washington allows type III. Type I is local area based, friendly poker betting with no reporting required. Type II allows the use of limited slots and gaming where the winnings are player to player generated. Type III, also known as Vegas style, allows bingo, keno, most table games and slots where the bettor is playing against the house, not other bettors. Type II and III require federal gambling registration (National Gaming, 1999).

The Washington State Gambling Commission (Lies, 2008) state that Native American casinos have two imposed rates which must be paid for community impacts. For some local entities, this is the only revenues received.
1. 2% community impact fee - derived from 2% of the annual net income from type III gaming - to be divided for local police, fire, gambling addiction clinics, or municipalities that may be impacted by the gaming operation.

2. A 0.5% charitable contribution fee allocated for local churches, youth groups, and other non-profit organizations in the community, also generated from Type III gaming.

The gaming funds have a set rate by the commission to be distributed, but it is up to the tribes as to how much is allocated to each entity. Historically, local law enforcement receives the majority due to the frequency of responses they encounter.

This presented an organizational culture change that needed to happen within MFD. Not being able to rely solely on taxed income, relationships had to be created with the tribal council/sovereign nation administrative system. Also, MFD is moving from a suburban agency to one that provides service to a large transient population that visits modernized structures with sophisticated protection systems. It is strictly up to the tribal agency as to what type of services they would like provided. In the case of MFD, there was a working relationship previously in place where Tulalip Tribes recognized the capabilities, certifications, and standards that were already held by the district. The Tulalip Tribes also recognized the cost associated of starting a new emergency service from scratch. Although the revenues from the gaming were projected to be very lucrative, running a modern emergency service would be duplicative. Enhancing MFD for services to be provided would benefit both parties.

To relate to the United States Fire Administration, an operational objective of responding appropriately in a timely manner to emerging issues needs to be identified. The Tulalip Tribes have plans for the future to add high rise hotels, outlet malls, and outdoor theater, and theme parks that would
potentially attract in excess of one million transient visitors annually (Magnon, 2998) to the districts
response area. The impact is further reaching than just the rapid influx within MFD boundaries. Mutual aid
agreements throughout the county will have to be re-written. Marysville currently operates with a staffing
level of 22 on duty personnel (Corn, 2008). Utilizing the MFD incident command system, a significant
high rise incident will require a response of 100 to 110 personnel which would consume the better part of
Snohomish County's entire on duty staffing. On site training for employees to become E.M.T.'s and
emergency responders would greatly enhance the initial response times and assist the work loads of the
minimal on-duty staffing that would respond to the large, labor intensive incidents. MFD can assist in this
with by attending the occupancies annual emergency response plans and relay our initial action plans.

MFDs responding stations and apparatus are located off tribal properties, while offering response
times that are in conjunction with the response standards that are held to the rest of the district. There has
been discussion of a station built on tribal property in the future as the need dictates, and staffing will be
increased to accommodate for increased call volume and skills needed. On or off reservation property has
yet to be determined.

A new term known as reservation shopping (Reservation, 2008) is becoming a sought after practice.
This term describes tribes that, with the backing of casino investors, casino/resorts can be constructed off of
tribal indigenous homeland - usually near a large urban center. In 2006, Congress introduced legislation to
possibly curb this type of growth (Reservation, 2008). If it was allowed to occur, fire departments that
currently have no tribal property within their jurisdiction and are close to an urban city would be prone to
experience this unprecedented growth. Many more small departments may have this new responsibility
catapulted into their standard of practice.
Good communication between a fire department and the tribe is critical to the future of the suburban department. Working for 10 to 15 years building a relationship, adding staffing, increasing skills, and potentially creating a culture change is difficult and requires work. To have the relationship default, enough so to have the tribe pull out and create their own service would be financially damaging to any department. Communication from the very beginning is vital.

Literature Review

The literature review for this project was conducted by using the NFA's Learning Resource Center, the Puget Sound inter-library system, and the World Wide Web. As a guide to answer some of the questions outlined in this ARP, research was conducted to identify various compensation methods to emergency service providers from entities that do not pay standard taxation fees.

In the late 1980's, a landmark decision (Cabazon, 1987) was made that gave the rights to Native American tribes for operating gaming establishments on tribal reservations. Several had been attempting to operate small bingo halls and smoke shops with ongoing taxation confrontations between themselves and local governments. In 1986, the Cabazon and Morongo Tribes of the Mission Indians from Riverside California submitted a case to the Federal District Court stating that neither the State nor the county had the authority to enforce its gaming laws on reservation land. The court of appeals sided with the Tribes and affirmed the decision (Cabazon, 1987). This decision allowed for similar reservations across the nation to take the same actions to supplement revenue in what the NGISC (1999) identified as typically being "a financially depressed - low tax based are" (chap.6p5). The NGISC (National Gaming,, 1999) is the landmark commission that identified all Indian gaming regulations between Tribal and State/Federal relationships.
The Federal Government identified Cabazon (Cabazon, 1987) as an opportunity for tribes to become self-sufficient without federal aid, and enhance the lives of tribal members to prosper with jobs close to home. The NGISC also established criteria as to which and how tribes would be recognized. Chief Justice Marshall (National Gaming, 1999) identified the federal government as the provider in a "trust relationship" (chap. 6, p. 5) with the Indian nations. By identifying Indian National as wards of the federal government, a legal responsibility for their protection and the promotion of their welfare needed to be provided.

In a means to further assist the tribal financial independence, the Internal Revenue Service determined that for the purposes of income taxation, the gambling income of the Indian tribes and their federally-chartered corporations are not subject to federal income taxation (National Gaming, 1999). However, the individual payments to tribal members in the form of salaries or pay must be reported as taxable income.

Due to the Cabazon (Cabazon, 1987) decision, the potential was there to create unregulated tribal gaming across the nation which could allow for no impact compensation to the local supporting agencies that would be affected by the new growth. The NGISC also included a provision for tribes conducting Class III gaming to sign a "compact" with the respective state which typically includes measures for state regulation and the sharing of revenues (National Gaming, 1999). This is the basis for compensation to local fire departments that provide the emergency services on the rapidly expanding reservation areas. The specific amount to individual entities is not identified and is dependent on Tribal discretion. The Tulalip tribes recognized the abilities of MFD from past working relationships. The cost of building and operating a similar emergency service would be very high, so an agreement was made to pay MFD an annual fee based on the original as-built square footage of the operating businesses on the tribal property (Corn, 2008).
The rate has an annual increase directly related to the cost of living assessment in the local Puget Sound area. The agreement is for the buildings - the property is exempt in the figure; however, when the NGISC fund is added, the total amount is very close to the assessed value fee the fire district would receive through a standard taxation system of businesses located off reservation property.

The allocated compensation amount to the local emergency service from tribal impact funds alone may not be sufficient to operate a standard of service equal to the influx of customers/technology. The National Fire Protection Association (NFPA) states "...on duty personnel shall be comprised of the number of firefighters necessary for the performance relative to the expected firefighting conditions" (NFPA, p.1720-7). The growth that is being experienced is commonly large commercial multi-story structures in excess of 100,000 sq ft. Much of this growth is occurring in rural or suburban areas served by an emergency service provider with limited personnel capabilities and little or no experience operating in such structures. A study conducted by the Opinion Research Corporation (July, 2003) identified that growth is straining fire resources nationwide. As noted from the study, the two main concerns derived from a poll of Fire Chiefs are the strain on existing resources, and getting the necessary funding for needed improvements1.

The size of the establishment being built, future prospects, and the capabilities of the local fire department may force the corporations building these structures to provide an entire service entity. The Reedy Creek Improvement District (RCID) encompasses approximately 25,000 acres (previously remote) in Florida and provides not only emergency services, but manages all roads and bridges, water control, land use regulation and planning, and any other services needed to self-sustain the district. The income must be imposed from within its own boundaries.
RCID is primarily owned by wholly owned subsidiaries of the Walt Disney Company, and has Walt Disney World as a major fund contributor. Building the emergency service program from its infancy, the focus created a fixed extinguishing and fire prevention system in lieu of a traditional suppression department (RCID, 2008). By doing this, Walt Disney World provides state of the art protection backed by a continual inspection program that uses minimal staffing when compared to a traditional fire department.

The United States Navy operates support complexes with close proximity to major military installations, one of which is in MFD. The complex is smaller in size which does not warrant its own emergency protection unit, but can have up to 4,000 people on the support complex at any time. MFD provides all fire protection and EMS services which are on a non-reimbursable basis, except for direct expenses and losses over and above normal operating costs (MFD, 1995). This is the norm throughout the Puget Sound area for many of the smaller military installations. In return, though not noted in the Memorandum of Understanding (MOU), the military will supply services for larger hazardous materials incidents or mutual aid responses from the larger installation when needed.

The Federal Government controls many levels of emergency service protection that are provided in local to global sizes. The Nevada Test Site, operated by the Department of Energy and National Security Technology, provides a civilian based emergency response department on-site. All of the test site fire department line personnel are members of the national teamsters union. Every five years a Department of Energy contract is up for renewal for the caretaker for the entire test site (National Security Technologies, 2007). The Firefighters contract is an inset of the main agreement. With this, emergency services, the high level of security, and hazardous materials disposal standards performed by the on-duty crews remain constant.
When surveying the needs for emergency service protection, the existing service must first be identified. Starting a service from the beginning has many fields which must be considered, and adding an additional unit for expansion needs to an existing service has to have a basis for justification. A standard set for MFD is 3000 calls for a stations responding area (Corn, 2008). When that threshold is approached, implementation is needed to add an additional emergency response unit. The data has to be reviewed to identify if the unit needs to be aid, fire, or the possibility of a fire station in the area where the growth is occurring. In the five years of operation that statistics can support, the Tulalip Casino has had an average of 251 calls per year (MFD, 2007). This does not reach the amount that would dictate another emergency response unit, but is does remove the staffed units out of their normal operating area 251 times/year. This reduces the time standard set for the rest of the response area when another unit responds in place of the vacant one. The 251 calls per year represent an annual increase of 5.9%. The 2007 call volume was 367 to the casino area alone, or about one call per day. The four square mile area surrounding the casino that has been experiencing the majority of tribal growth has grown from 255 calls in 1995 to 1007 in 2007 (MFD, 2007). Again, this does not necessitate the need for a dedicated unit, but it contributes to one third the call volume a full-time vehicle can handle, taking that period of tribal response time away from the rest of the fire district.

The number of transient visitors that the hotel will attract can be predicted. On average, 360 rooms will be 72% occupied (Snohomish County Tourism, 2008) and bring 518 visitors to the structure. Employee numbers of 150 on duty will bring the average total to 668 people in the building at any given time. In contrast to the casino which holds about the same number of occupants, it can be predicted on average, an additional call per day from the hotel. With this type of expansion it now becomes more than just adding an additional response unit. The basis for the occupancy as well as the emergency service provider relies on multiple systems to provide for life safety.
Bell (1997) identified that:

Since hotel guests are transients, special consideration must be given to the potential threat to their life safety from fire. For example, occupants of the residential portion of a hotel sleep in unfamiliar surroundings and could possibly become disoriented when trying to evacuate under heavy smoke conditions (p.9).

Audible alarms, visual alarms, visual guides, smoke management systems, and the evacuation process are all considerations that must be identified for the confused patron. These systems may all be new to suburban departments that primarily protect residential and small commercial properties.

There are national standard response times, minimum requirements for equipment and staffing, and laws that force emergency responders to take action to the best of their ability. Due to the severity or complexity of the emergency situation, the initial actions of the people on scene can be the difference between life and death. In order to fully pre-plan for all types of emergencies, all types of situations have to be considered. Falls, medical emergencies, traffic accidents, labor disputes, bomb threats, jumpers, daredevils, and the impact they may have on building security are a few examples of what might occur (Craighead, 2003). During a cardiac event on the 10th floor emergency response crews may not arrive for 10 minutes. With a fire on the 10th floor emergency crews may not be able to arrive to the floors above at all.

There have been developments for civilian self rescue which would save valuable time in a high rise rescue situation. The "RIBIC RESCUE" vest can allow for exterior personal descent from up to 1,475 feet (RIBIC, 2003). German Engineer Harald Ribic created the self-donning/controlled descent device in 2003 after watching people leap to their demise in the New York twin tower collapse. The device can be provided by the high rise occupancy, or by the patron himself who frequents larger buildings.
Even if the person becomes unconscious during descent, the vest has a limiting fall control device that will safely lower the victim to the ground. One deterrent of using a fall arresting vest can be the apprehension of a person leaping from staggering heights, fully relying on an apparatus never before seen or used. An alternate descent controlling slide tube may provide the means of personal escape from elevated structures. This device has been proven effective by allowing egress and providing a visual blanket, but some determents to this apparatus include placement constraints on the building, and only allowing one or two people in it at any time while multiple victims are awaiting rescue (Apparatus, 1996).

To provide for patron safety, hotel/casino owners realize they must provide a safe atmosphere and a sense of security. Recent technological advancements and studies in the last five years have given the lay person the ability to administer a life saving shock to someone in cardiac arrest. The Automatic External Defibrillator (AED) is now being placed in many public gathering places at a nominal cost to the occupancy owner. By having trained personnel on site that know the location of the AED and that have had exposure to the operation of the unit can save precious minutes in a Cardio Pulmonary Resuscitation (CPR) situation. Realizing the need for rapid response times, Tulalip Tribal operations have trained emergency responders within their own staff to prepare emergency response plans for their given occupancy (Tulalip, 2008).

A hotel/casino has many areas of concern in an emergency situation. The most important is life safety, and casino organizations realize the importance of a current - effective response plan. The care and protection of the money (sometimes in very large amounts) must be completed in an expeditious - efficient manor by qualified personnel. Emergency plans can be left up to different departments within the complex and to the group of employees within that department (Tulalip, 2008). Housekeeping and maintenance may not be the most logical departments to control the monetary interests during an
emergency, but may be the best to train for medical and evacuation emergencies. Off reservation properties, the Authority Having Jurisdiction (AHJ) is usually included in the planning process of the building as well as the emergency event plan. On May 4, 1988, a building service engineer of the First Interstate Bank building in Los Angeles bypassed the building fire life safety system and rode a service elevator to the initial fire floor where he succumbed to the intensity of the fire. Taking the elevator to the fire floor by non-trained firefighting personnel is extremely dangerous (Craighead, 2004). Having the AHJ involved in a combined emergency plan with the building management team can provide valuable information to the employees and possibly prevent such mistakes.

In summary, the literary review identified that growth, impact, and response plans all relate to a central focus of compensation, which in turn gives the department providing the emergency services the ability to grow with the imposed needs. The information reviewed provided the author important background understanding and also recognized several options to address working relationships between non-tax paying entities (PILT) and traditional levy/bond collecting operations. The American fire service has a powerful union backing the full-time firefighters. This literature review identified one such organization that operates successfully with union firefighters within a PILT system.

Procedures

This ARP issue was chosen while attending the Executive Development class at the NFA in April of 2008. The topic directly addressed a problem the Marysville Fire District experienced, and correlated the relevance with one of the five NFA's operational objectives. After the problem statement was submitted and permission granted to continue, a descriptive process was utilized on all questions proposed for this project. The researcher then contacted the NFA evaluator for initial guidance and suggested areas of focus for research. Research was conducted at the NFA Learning Resource Center, the Puget Sound inter-library system, and the World Wide Web.
During the literature review, information was considered and identified for the project and then prioritized for its appropriated use. The Fire Service was the main focus for answer to this project, but information sources were utilized from the military and private industry as well.

The researcher also created a survey questionnaire and conducted a telephone survey of several departments across the United States. The intent of using the telephone as the means of contact was to receive 100% participation of the chosen departments with short and to the point questions. The survey criterion was created to identify fire departments that have similar characteristics to the Marysville Fire District in relation to the Tulalip Indian Reservation. A combination of the internet, Wikipedia, and Google Map Quest were used to identify each department.

The following guidelines were used for department selection:

1. The state allows type III gaming as outlined by the NGISC.
2. The fire department serves a general population between 25,000 and 100,000.
3. The fire department provides primary emergency response capabilities for the tribal gaming area.
4. The fire department has a roster of career line firefighters between 30 and 125 personnel.
5. The tribal gaming casino lies within 1.5 hours driving distance from a major metropolitan area.

After the departments to be surveyed were identified, questions (Appendix A) were to be asked of a Chief Officer who was directly involved with tribal operations and knew the department/tribal history extensively. Six departments were contacted, the Fire Chief of each department provided the
information for all six surveys. Information obtained in the survey was supported by the literature review and then combined in the results section of this project.

Using the Applied Research Project guidelines, all sections were compiled in a draft form, then reviewed by several other EFO students for comments. A final draft was reviewed, revised, and submitted for final evaluation.

Limitations

During the phone surveys, developments arose that need to be clarified for the reader. Due to the growth of the commercial properties on the tribal lands for one of the surveyed departments, it was decided by the Tribes that it would prove beneficial to alter the existing emergency provider system and create a tribal response service. Before the tribal services were formed, all the criteria the researcher used to locate a department for this survey were met. After the beginning of the new service, the department had fallen below one of the qualifying criterion (career Firefighters) for this ARP but was left in the survey due to the relevance of the experienced growth. Its primary response is now to the commercial growth on tribal properties, but still responds within the service area it previously occupied outside the casino properties. Compensation for the emergency services is allocated directly from the tribal council.

Results

The process of how tribal gaming laws were established, the timing as to when it became an issue and the introduction of modern technology is described in the literature review. This information gives the insight as to why and when this became a problem for fire departments that are identified in this ARP. The growth effects primarily focus on monetary compensation for the areas being served and how this is amount is generated. This became the basis for all questions asked in this report.
The first question asked was an attempt to predict the urban growth on tribal areas with characteristics similar to the Marysville/Tulalip area. The base of this information for this question was gathered from the Fire Chiefs that were surveyed who have direct communication with the tribes. Of the Chiefs surveyed, five of the six stated that there are significant plans for future growth. Very little is actually planned or in the works. The reasons for the actual planning not happening remains unclear, but may be caused by several factors. It was stated that several of the casinos started as bingo games in portable tent structures and progressed as the funds became available. This is the same progression the Tulalip Tribes has progressed thru. A small bingo hall was first constructed, converted into a small casino which experienced several expansion projects, a separate bingo hall was constructed, and finally a separate - larger casino/resort was built on the reservation property. All three are still in operation.

The income to fund multi-million dollar projects takes time and careful planning, which tribes across the nation are successfully doing. The recent decline of the economy and construction (at the time of this survey) was said to be of concern by the Chiefs interviewed. The consensus, as with the Tulalip Tribes, is that there will be growth that will attract a large transient population. The residential growth on the same properties is insignificant in comparison.

What effects will the projected call types and volume have on the existing response standards for MFD? By evaluating the annual call volume in the literature review portion it is evident that growth is occurring and to what extend (MFD, 2007). In direct correlation, as the call volume increased on tribal properties, response capabilities decreased in other parts of the district. By having an existing standard of calls/unit (Corn, 2008), MFD has been able to keep up with the growth by conducting an annual review for the designated area. With this information personnel and apparatus can be added to the response area where it is needed and response times can be maintained at an adequate level.
It can be seen that the growth brings new technology with it. For MFD, and five of the six Chiefs surveyed, high rise construction is imposing the largest influx of modern technology onto the suburban department responsibilities. High rise protection systems as listed in the literature review require internal training for responding departments and the knowledge from within to present such training. This is the time where expanding corporations may realize the lack of expertise of the current emergency provider and make the decision to provide an internal service. NGISC funding may not cover the needed suppression teams (National Gaming, 1999), so an option may be to focus on a prevention/protection system such as the Reedy Creek Improvement District (RCID, 2008). Compensation from the tribes can be provided by several different means as noted in this report. What has to be identified is what level of protection the occupancy desires for the type of construction being built.

Question three asks: "What initial response plans can the affected properties provide that will aid in fire response?" The research indicated the most critical time of an incident may occur before emergency personnel can arrive. In a large event patrons may have to provide their own self rescue as crews may not be able to reach them. High rise occupancies have several options to assist in self rescue such as the Ribic Vest (RIBIC, 2003) or the slide tube (Apparatus, 1996). An Emergency Situation Procedure Plan is the document that covers multiple problems that may occur and is a resource to all employees (Tulalip, 2008). Research shows that patrons may not be used to the unfamiliar surroundings in emergency situations, which could lead to the increased risk of adverse effects from fire (Bell, 1997). Employees that know the response plans can expedite care by means of evacuation assistance. In the event of cardiac arrest and AED's are on the property, trained employees may be able to provide life saving intervention in less when fire department response teams may be more than ten minutes away.
The survey conducted provided valuable information from the Chiefs that were interviewed (Appendix A). As a summary of the six Chiefs that were surveyed, 83% expect to experience a large amount of growth that will impact their department. Of the same Chiefs, 83% also have already had an influx of new technology due to high rise construction within their response area. This survey verifies the findings of the Opinion Research Corporation Survey\(^1\) (Judy, 2003) that 81% of Chiefs surveyed nationally state resources are being strained from growth.
Both surveys also find that funding is an issue. The matter of funding can become magnified when PILT is imposed on new structures with massive square footage in suburban fire departments. Of the six surveyed for this APR 66% have taken mitigation steps with the tribes to rectify the shortfall.

The final question, "What cooperative response training plans can MFD and the Tulalip Tribal Authority conduct to implement a unified response for public safety", has several items that can be researched in the future for a plan that would benefit both parties. The MFD annual review shows call volume and type can be dissected for projected growth needs (MFD, 2007). The annual report also contains the capabilities of MFD that can be verified for special operations needs assessment. The needs and actions of the hotel and employees are presented in the Tulalip Emergency Situation Procedures Manual (Tulalip, 2008). Compensation can be viewed by several different existing relationships and pertaining laws. The percentage required from gaming impact funds (National Gaming, 1999), the existing MFD/Tulalip agreement (Corn, 2008), private examples (RCID), and military contracts that include union compensation (National Securities Technologies, 2007) are examples. By utilizing some, or all of these resources, a unified response plan can be created that will include the standards and safety of the Tulalip properties as well as MFD.

Discussion

The urban growth projection on properties with characteristics similar to the Marysville/Tulalip Reservation provided mixed results. Of the Chiefs surveyed in this APR, 83% expect that large growth will occur but could not expand on the timing and specific construction features that will come. The majority of the reservation properties that are being served by suburban departments were mainly financially depressed areas (National Gaming, 1999) which this study found are now experiencing the influx of commercial buildings sometimes exceeding 1 million square feet.
Once the initial infrastructure for commercial development is laid it will become easier to continue the growth on the identified properties. The relation to a major interstate highway will continue the ease of access for visiting patrons. The Tulalip Reservation is prospering as a nation, and is reallocating income back into its community (Tulalip Tribes, 2005). The growth focus is expected to remain mainly on commercial development while also enhancing the residential community. The continuation of the growth remains unclear as to when it will occur. At the time this report was written, there was a major economy slowing nation-wide which could contribute to the uncertainty of new growth. Providing emergency service is a Fire Chiefs main priority but is only one facet of consideration for an Indian Nation experiencing the opportunity to expand its financial independence at such a rapid rate. Communication between the tribe and emergency service provider may not be at its optimum level; therefore, the knowledge the Chief has of future operations may be limited until construction actually begins. It is imperative that the emergency service provider and the tribal entity start a line of effective communication and keep it active throughout the relationship. Together, future planning of the growth and the safety of visiting patrons will ensure success for both parties.

The installation of an improvement district may be more costly and difficult to create rather than starting one from the ground and building with the desired concepts from the beginning (RCID, 2008). With residential and small commercial properties already in place, rebuilding the infrastructure and creating new relations (of disbanding) with service providers could prove difficult.

This research showed there is a rise in the volume of calls on the developing property (MFD, 2007). To maintain the standard MFD previously provided, meeting the needs of new call types would prove to be the most challenging. Once the Cabazon decision (Cabazon, 1987) allowed for tribal gaming on reservation land, the opportunity was open across the nation for large commercial growth in fire districts that may not have the capability to serve such occupancies.
The NFPA provides a standard that departments should have the sufficient "...number of firefighters necessary for the performance relative to the expected fire fighting conditions" (NFPA, 2001). The Opinion Research Corporation affirmed that resources and funding are already an issue for normal operations across the national (ORC July, 2003) without the addition of such large occupancies identified in this project.

Compensation for services provided became the main issue for this ARP. As high risk hotels are built the number of occupants can be predicted for volume (Snohomish County Tourism, 2008). Concerning the type of call, Bell stated: (1997) "Special consideration must be given to the potential threat to their (patrons) life safety from fire." (p. 9), which can be interpreted as providing modern fire and life safety protection systems for any specialized structures. When the expansion is so great that it necessitates additional staffing and training on modern protection systems, the federally mandated compact funds may not be adequate (National Gaming, 1999). Suburban fire departments rely mainly on voter approved levies and bonds which sovereign nations are not required paying on reservation properties. This can prove to be a critical time for a fire department. If the expansion prompts the tribe to create their own response service, an existing service provider could lose compensation funds already in place for reservation properties. This research found that compared to the departments surveyed, MFD and the Tulalip Tribes have a compensation plan in place that allows for the growth of staffing within the department to increase as the enlargement of the tribal properties occur. Comparatively, it allows for annual increases automatically without having to re-negotiate terms and conditions and is among one of the best plans evaluated in the survey.

As with the military, MFD receives no compensation for services provided to the support complex operating within the district (MFD, 1995) but does identify coverage for extenuating costs incurred. The Nevada Test Site, a division of the Department of Energy, shows that there is means to
retain a high level of service in place with a contract that includes union employees working in a PILT system (National Securities Technologies, 2007).

Initial response plans created by the individual properties are critical for the responding agencies. Identification of what initial actions taken by management and employees - or none - has direct correlation on the primary procedures outside agencies will take. The Emergency Situation Procedures Manual (Tulalip, 2008) can be a good beginning point for the tribes to notify the local fire service of what internal actions will be utilized in the event of different emergency situations. In return, portions of the fire department annual report (MFD, 2007) can provide a valuable document for the tribes as to what the capabilities of the local emergency service provider can give, or enhance upon if needed. As this research survey showed, many small suburban departments have not experienced high rise occupancies before this expansion. Foreseeing the multitude of potential emergencies never before practiced may require a cultural change within the department. Geoff Craighead (Craighead, 2003) describes multiple situations with possible actions that would prove beneficial for the drafting of an emergency response plan by the occupancy, as well as informative to the responding agency.

Technology is available that can assist employees in initial response. The AED is a device that has become common in numerous public assembly areas throughout the world as well as being carried on emergency responding apparatus. Many corporations already include the utilization of this device in their Emergency Situation Procedures and provide the appropriate training for employees. Self rescue devices have a less chance of ever being sued than the AED. Devices such as the Ribic vest (RIBIC, 2003) and the slide tube (Apparatus, 1996) are available for information gathering and purchase thru the World Wide Web. Both of these items may be utilized in a high rise fire situation: however, if modern technology is applied to the building protection and extinguishing systems, it may override the justification to purchase several hundred of the devices. Devastating situations can always occur,
such as the New York Twin Towers collapse in 2001 from a terrorist attack, or a natural disaster that could render the protection systems unusable. A risk vs. benefit analysis must be conducted is to justify the cost of purchase and installation.

Recommendations

Communications and a working relationship are vital to suburban fire departments being impacted by non-tax paying entities. PILT must be identified and negotiated previous to the service need. It is with these recommendations that MFD can insure that previously created response standards for time and performance can be provided for successful future relations with the Tulalip Tribes.

1. Maintain effective communications with the Tulalip Tribes with bi-annual meetings. Expansion projection, compensation rates, and requested services are key items needed for MFD impact mitigation. Decreased response times, skills to meet the demands, and cooperative training are what can be offered to the Tulalip Tribes. The 'as-built' compensation method for PILT is one of the best identified in this report and should be maintained. NGISC funding is not sufficient to cover the increased staffing and training demands imposed from the rapid growth.

2. Review annual call volumes and types of calls from the MFD annual report to create a dynamic 5 year staffing plan for MFD which includes potential Tribal impacts. This information should be shared with Tulalip Tribes. Expansion of fire department staffing and training will take time and should be conducted at the same rate of construction. When new occupancies open, staffing and skills equal to the demand should be ready to respond.

3. Create a cooperative training system that will incorporate hotel/casino employees and fire department personnel. Annual mock high rise training will allow firefighters continuing education of the protection systems and permit interaction of both entities that will lead to the best evacuation methods and protection of the patrons.
4. MFD should offer the necessary continuing education and training for the hotel/casino staff to maintain a first responder or Emergency Medical Technician status for a pre determined number of Tulalip Tribes personnel. This will enhance the initial response capabilities of MFD.
References


Magnon, Bret (2008). Tulalip Hotel/Casino Operations Manager, Marysville, WA. 360-716-6000


Appendix A

Fire Departments with Tribal response Survey

A survey was conducted to identify fire departments that have similar characteristics to the Marysville Fire District in relation to the Tulalip Tribal Reservation. A combination of the internet and Google Map Quest was used to identify each department.

The following guidelines were used:

1. The state allows type III gaming as outlined by the NGISC.
2. The fire department serves a general population between 25,000 and 100,000.
3. The fire department provides primary response capabilities for the tribal gaming area.
4. The fire department has a roster of career line firefighters between 30 and 125 personnel.
5. The tribal gaming casino lies within 1.5 hours of a major metropolitan area.

After the departments were identified, the following questions were asked of a Chief Officer who was directly involved with tribal operations and knew the department/tribal history extensively. Questions 1-5 were asked for verification purposes for department qualification.

1. What year was the casino built (Verification of impact time)?

2. What is the casino square footage (Comparison to Tulalip 70,000sf)?
   108,000  785,000  125,000  1,500,000  90,000  100,000

3. What is the population your department serves?
   75,000  90,000  97,000  41,500  26,000  39,000

4. Do you provide primary emergency service to the gaming area?
   Yes  Yes  Yes  Yes  Yes  Yes
5. How many career Firefighters do you employ?

91 104 40 40 92 20

Questions 6-10 were used for results application of the ARP.

6. Has the staffing increased due to the tribal impact?

- Yes, at that station, from 6 to 20 after succession from previous fire department in 1992.
- Not yet but soon. Call volume is increasing as well as the construction.
- No, call volume has increased at the station that serves the tribal properties but no additional staffing as of yet.
- Second station added in '01 and added another Battalion in direct relation to tribal growth.
- No
- The fire department assumed emergency response for the previously operating tribal property. Staffing was identified at the onset, no growth since.

7. Is there any unique staffing in conjunction with the tribe, i.e. crossed staffed stations or tribal employees?

- Created own emergency service within tribal lands
- No, the casino/resort has on-site EMS with no transport capabilities
- No
- No
- No
- Fire Department encouraged, but currently no takers.
8. Has your department had to learn any specialized skills due to the growth?
   - Yes, all that is associated with the new technology such as high rise and Hazmat.
   - Yes, high rise
   - No
   - Yes, high rise and rescue
   - Yes, high rise and underground parking fire attacks.
   - Yes, high rise

9. How is your department compensated by the tribe for services provided?
   - An annual budget is submitted to the tribal council for approval. First due area is larger than the hotel/casino alone. Other responsibilities are included into the request.
   - 2 million dollars is allocated to the City annually. From that allocation, payments are divided against the fire, water, and sewer departments for services given to the tribal properties. The fire department submits an annual request to the city managers.
   - NGISC funds, which is allocated in the amount of normal levy taxation rates of non-tribal properties.
   - Request submitted to tribal council for operating expenses.
   - NGISC funds only.
   - Based on fee per sq/ft agreement for commercial and residential properties totaling $300,000. Allocated to the city for provided emergency services then distributed to the fire department. Reviewed annually.
10. What future growth is planned by the tribe that will ultimately affect your operation?

- None, but there is a memorandum of understanding in place that secures the growth of the fire department along with any future growth that happens on tribal properties.
- Huge growth expected within the next 5 to 10 years. No compensation discussions have taken place yet.
- New, additional hotel and the modern technology it brings with it.
- Golf course and possible hotel/casino expansion. One additional fire house and engine are in the works.
- Another tower in year 2010, and a marine shuttle service between Seattle and Bainbridge Island.
- Significant plans for the future but current economy downturn has slowed plans. FD to remain inclusive in expansion plans.

Participating Departments:

- Baronas Fire Department, Baronas, CA  Chief Sandoval
- Coconut Creek Fire Department, Coconut Creek, FL  Chief Pollio
- North Kitsap Fire and Rescue, Kitsap WA  Chief Smith
- Pachanga Fire Department, Temecula, CA  Chief McCormand
- Prescott/Yavapai Fire District, Prescott, AZ  Chief Willis
- Valley Fire and Rescue, Auburn, WA  Chief Laatch
Footnotes

Note1. From "Fire Chiefs and City Planners use PPC Results to Plan Improvements to a Communities Fire Protection," by Opinion Research Corporation (ORC), Fire Chief magazine, July 2003. Copyright 2003 by ORC. Reprinted with permission (attachment, 2 pages).
RE: Article usage

Vance, Richard A. [RVance@iso.com]

Sent: Monday, August 04, 2008 6:02 AM
To: Scott Goodale

Chief Goodale

You have our permission to use this chart and we appreciate you asking. I wanted to make you aware (if you don't already know) that Washington is a Bureau state. This means that ISO does not perform PPC gradings there. The state has their own bureau that completes these although they do use the ISO schedule.

Also, if you could share a copy of your paper when complete we would appreciate it. Thanks

Rick Vance

-----Original Message-----
From: Scott Goodale [mailto:sgoodale@marysvillewa.gov]
Sent: Monday, August 04, 2008 12:17 AM
To: Vance, Richard A.
Subject: RE: Article usage

Rick, I'm looking to use the graph in the middle of the article. Thank you.

From: Vance, Richard A. [RVance@iso.com]
Sent: Friday, August 01, 2008 11:36 AM
To: Scott Goodale
Subject: FW: Article usage

Good afternoon Chief Goodale

Would you be able to scan or fax me the material that you're referring too? Our fax number is 856-985-6464. If scanning send to my email address.

Thanks

Rick Vance
ISO
Manager
856-985-5600 ext 220

-----Original Message-----
From: Budzak, Vincent
Sent: Friday, August 01, 2008 2:17 PM
To: Vance, Richard A.
Subject: FW: Article usage

FYI

https://cityowa.us/owa/?ac=Item&t=IPM.Note&lid=RgAAAAACxarSQKVPDQZ45v9M%2f... 9/30/2008
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Visit our Web site @ www.isomitigation.com

-----Original Message-----  
From: Scott Goodale  
[mailto:sgoodale@marysvillewa.gov]  
Sent: Friday, August 01, 2008 2:10 PM  
To: Budzak, Vincent  
Subject: Article usage

Vince,  
This is a follow up per our conversation on the phone 8/1/08.

I'm requesting to use a survey result graph that was published in the  
outreach section, July 2003 titled "Fire chiefs and city planners use  
PPC results to plan improvements to a communities fire protection",  
Particularly "Strain on department resources".

I am currently conducting a research project thru the National Fire  
Academy in Emmetsburg, MD and the Executive Development program. My  
topic is urban growth on suburban fire departments from various tax  
exempt entities.

You mentioned that this is public domain after being published, but it  
is standard procedure for the FEMA academy to receive re-publication  
permission before using the information.

Thanks for the help, it's very appreciated.

Scott Goodale  
BC, Marysville Fire District  
This email is intended for the recipient only. If you are not the  
tended recipient please disregard, and do not use the information for  
any purpose.  
This email is intended for the recipient only. If you are not the intended recipient please disregard, and do not use the information for any purpose.

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