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Wildland Urban Interface Fire Prevention Program

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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 used language, ideas, expressions or writing of another.

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Abstract

Golden Gate Fire Control and Rescue District (GGFCRD) resides in a wildland urban interface which results in forest, brush or grass fire threats and incidents. The purpose of this research was to identify the issues for a GGFCRD forest, brush and grass fire prevention program. The research methodology was descriptive. The research questions were: (a) How many forest, brush or grass fires were reported within GGFCRD's boundaries in the last thirty-six months? (b) What wildland urban interface fire prevention program would align with GGFCRD's need? (c) What would be required to implement a wildland urban interface fire prevention program for GGFCRD? The procedures used to collect data were interviews and a focus group. The research supported the theory that a wildland urban interface fire prevention program was needed and identified three possible wildland urban interface fire prevention programs; Community Wildfire Protection Plan, Firewise and Ready Set Go! The research results determined the Ready Set Go! (RSG) program was the most aligned with GGFCRD's needs. Recommendations of this research were: (a) GGFCRD should develop the RSG program. (b) A support staff or command staff officer should be the program coordinator. (c) The firefighters of GGFCRD should assist with the education and presentations of the program.

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Wildland Urban Interface Fire Prevention Program

The Golden Gate Fire District (GGFCRD) was experiencing challenges in the wildland urban interface. It was believed that a wildland urban interface fire prevention program would benefit GGFCRD. The perceived benefits would be a safer environment for the residents, business owners and firefighters.

The problem was GGFCRD does not have a wildland urban interface fire prevention program. The purpose of this research was to identify the issues for a GGFCRD forest, brush and grass fire prevention program. The program should meet the needs of GGFCRD, be within GGFCRD's capabilities and then determine what would be required to implement a wildland urban interface fire prevention program.

The research method that was used for this applied research project was descriptive. Three research questions were utilized to determine if GGFCRD can achieve a wildland urban interface fire prevention program. The questions were: (a) How many forest, brush or grass fires occurred in GGFCRD during the last thirty-six months? (b) What wildland urban interface fire prevention program would align with the GGFCRD's needs and capabilities to provide? (c) What would be required to implement a wildland urban interface fire prevention program for the GGFCRD?

BACKGROUND AND SIGNIFICANCE

GGFCRD is a special tax district that resides in Southwest Florida. GGFCRD encompasses one hundred three square miles, of which one hundred and two square miles would be considered wildland urban interface. The topography is flat with a criss-cross of canals. The vegetation consists of pine trees, sabal palm trees, palmetto palms and various grasses. The population is generally blue collar and retirees. The majority of

single family occupancies are located on one acre or large lots. There are several low rise condominiums, approximately 20 gated communities, an industrial park and several commercial retail centers as well as stand alone retail businesses.

In GGFCRD's wildland urban interface there has been very little accomplished in regard to fuel mitigation. To date the Florida Division of Forestry has provided mechanical fuel mitigation to approximately 750 acres through 13 different projects (V. Hill, personal communication, May 24, 2011). Mechanical fuel mitigation versus prescribed fire mitigation was used due to the high population of homes and businesses located in the wildland urban interface. The lack of a funded fuel mitigation program results in years and years of pine drape, needle and leaf duff as well as sabal palm tree litter. The dense understory has a significant impact on fuel load and the potential for wildland fire. As an example of the wildland urban interface fire potential, on May 29, 2008, the Naples Daily News reported an 800 acre brush fire in GGFCRD consumed three homes, damaged several others and damaged or destroyed multiple vehicles, boats and sheds (Naples Daily New, 2008). With the lack of funding for present or future fuel mitigation, a wildland urban interface fire prevention program would be of significant value.

In Southwest Florida the weather plays a large role in the wildland urban interface fire conditions. Starting in late December to February there are, on occasion, frosts which negatively affects vegetation. Depending on the duration and temperature, frost can add considerably to the fuel load in the wildland urban interface. The fuel load due to frost does not decompose in a rapid manner. This new fuel adds to the years of existing fuel.

Weather also affects the moisture in the fuel in the wildland urban interface. During the winter, spring and early summer there is very little rain. This is the most prevalent time of year for wildland urban interface fires. To compound the lack of precipitation is low levels of humidity. The National Weather Service provides Red Flag Fire Alerts. The Red Flag Fire Alert is issued when any of the following conditions are met: (a) The relative humidity is less than 35% for four hours or longer, (b) if relative humidity is less than 35% and the speed of the wind is more than 15 miles per hour (c) or relative humidity is below 35% and the dispersion index is above 75 (Florida Department of Agriculture & Consumer Services Division of Forestry, 2010. p.1.). During the periods of Red Flag Fire Alerts GGFCRD is at a heightened level of response due to the potential of wildland urban interface fire conditions.

Early summer brings thunder storms to Southwest Florida. With thunder storms comes lightning. Lightning strikes cause an unusually high number of response calls for GGFCRD in the wildland urban interface areas. Lightning affects may cause immediate damage by contacting home or business structures resulting in structural or electrical damage. Lightning may also cause a wildland urban interface fire immediately after a strike or hours to days later.

In addition to the complexity weather adds to the wildland urban interface, GGFCRD also is experiencing severe financial restraints. The financial restraints have caused significant challenges.

Southwest Florida, as well as the state and nation have been negatively impacted by the downturn of the economy. GGFCRD currently has 58 personnel down from seventy-one three years ago. Over the last three years 13 personnel have left GGFCRD

due to attrition and a buy out. This represents an eighteen percent decrease in total personnel. The loss of personnel has caused a decrease in staffing resulting in apparatus not available to respond.

The reduction in personnel and apparatus is significant due to GGFCRD's strategy on responding to wildland urban interface fires. In the months where wildland urban interface fires are prevalent, GGFCRD's strategy is to have as many personnel and apparatus respond as rapidly as possible. The rapid response strategy has had a positive impact on the containment and extinguishment of the wildland urban interface fire. When personnel and apparatus are not available, or have to travel greater distances to arrive on scene the fire size and intensity increases.

In the City of Santa Barbara Fire Department Wildland Fire Plan it identifies the relevance of response times to wildland urban interface fires. The Wildland Fire Plan reports that during times of high fire alert, wildland fires can grow rapidly resulting in larger fires. In addition, it reports that prolong response times may cause the fire to extend past its area of origin (City of Santa Barbara, 2004, p. 12).

GGFCRD has many challenges to address in the wildland urban interface; topography, fuel load, frost, relative humidity, lightning and the effects from the downturn in the economy. The problem addressed in this applied research project was that GGFCRD does not have a wildland urban interface fire prevention program. Considering the challenges, GGFCRD may be well served by engaging in a wildland urban interface fire prevention program.

The United State Fire Administration's (USFA) strategic plan identifies five goals. USFA goal number 1 states, "Reduce risk at the local level through prevention

and mitigation” (USFA, 2001. p. 1). This applied research project addressed the USFA strategic plan, goal number 1, which addressed reducing risk to firefighters and civilians through a wildland urban interface fire prevention program.

In the National Fire Academy, Executive Fire Officer program, the Executive Analysis of Community Risk Reduction (EACRR) course is delivered. In the EACRR course material it is reported that the goal of the program is to enable the participant to be a front runner in risk reduction in a planned approach. The ECARR material goes on to say that this goal is in line with the USFA’s five year objectives. (National Fire Academy, 2009)

LITERATURE REVIEW

The concept of wildland fire prevention is not a new revelation in the fire service. The National Fire Prevention Association (NFPA) introduced and adopted NFPA 224, *Fire Prevention for Summer Homes in Forested Areas* in 1935 (NFPA, 2008). Since that time there have been wildland fires that have resulted in the loss of numerous lives as well as structures and property. Appropriately, the NFPA has revised and update the standard multiple times. In 1997, the standard was renumbered to NFPA 1144, *Standard for Reducing Structure Ignition Hazards from Wildland Fire* (NFPA, 2008). The most current NFPA 1144 Standard was last revised in 2008 (National Fire Protection Association, n.d.).

In 1944, the United States Department of Agriculture (USDA) Forest Service created the fire prevention image of Smokey Bear. In 1950, Smokey Bear became real to life. Firefighters found a treed, burned and scared bear cub. The cub got caught in a New Mexico wildland fire that burned more then 17,000 acres. The firefighters rescued

the cub and nursed him back to health. The firefighters name the cub Smokey and he became the figure of wildland fire prevention for the USDA Forest Service (United States Department of Agriculture Forest Service, n.d.).

In determining a nationally recognized wildland urban interface fire prevention program there are three programs that are readily available and provide a significant amount of support. The programs were: Community Wildfire Protection Plan (Healthy Forest Initiative, n.d.), Firewise (Firewise Communities, n.d.) and Ready Set Go! (Ready Set Go!, n.d.).

The Healthy Forest Restoration Act required the development of the Community Wildfire Protection Plan (CWPP). The CWPP was developed in 2004 by the efforts of the National Association of State Foresters, Western Governors' Association, Society of American Foresters, National Association of Counties, and the Communities Committee of the 7th American Forest Congress (Western Governors' Association, 2006. p. 3). This program encourages the use of residents and business owners to abate the challenges of the wildland urban interface. This was accomplished by providing wildland urban interface fire prevention education to the residents and business owners, offering community fire risk reduction planning and offering to train and equip fire districts in the wildland urban interface. Grants offered by various agencies would be necessary to accomplish the goals described in this program. Areas that have obtained a CWPP would be eligible, when available, for fuel reduction grants through the HFRA (Forest and Rangelands, n.d.).

The South Carolina Forestry Commission (SCFC) has implemented a plan to use data collected through Firewise assessments to establish a CWPP. The CWPP that is

being established in this case focuses on: educating the residents and business owners about wildfire, collective planning and implementation and to establish fire prevention activities. With the system in place Firewise was utilized on the local areas such as gated communities or neighborhoods and the CWPP encompasses the larger area such as a town or county (South Carolina Forestry Commission, n.d.).

Firewise was conceived after the destruction of approximately 1400 homes in 1985. The USDA Forestry Service, the U.S. Department of Interior and the NFPA worked in conjunction to develop a national project to address risk reduction in the wildland urban interface. It was not until 1997 that the national project, named Firewise, was available via the internet. (Firewise Communities, n.d.) Firewise educates the residents on how to live in the wildland urban interface and defend against wildfires. Residents are encouraged to work with neighbors to provide a Firewise Community. Although one focus of this program is on residents and neighbors working together there is information provided for firefighters and forestry professionals. Firewise offers educational courses to aid the different participants in the program (Firewise Communities, n.d.).

To meet the Firewise designation the following has to be achieved: Obtain a wildland urban interface specialist to provide a community assessment and produce a plan which includes community consensus strategies that is completed by the residents and business owners. Develop a Firewise Taskforce Committee that will oversee the Firewise program. Promote a Firewise Community/USA Day every spring to focus on the community consensus strategies. Institute a \$2.00 per capita program which will be used

for the local Firewise program. Provide an annual report on the programs activity (City of Ashland, n.d.).

In late 2003, the State of Ohio established Firewise Ohio. It is reported that the program was a success and has taken opportunities to obtain; funding, fire prevention supplies and planning assistance. The State added two additional Firewise programs in 2008 (State of Ohio, 2008).

The RSG program was developed by the International Association of Fire Chiefs (IAFC). This program utilizes the firefighters as instructors to educate the residents and business owners about the danger associated with living in the wildland urban interface. RSG is designed to support existing programs such as Firewise and other wildland urban interface fire prevention programs. The identifiable difference between this program and others is the focus on the individual; resident or business owner (IAFC, 2011).

RSG is set up into three teachable sections: Ready; requires the resident or business owner to be accountable for the family, home, structures and property. The resident or business owner is educated on how to prepare the family, home, structures and property prior to a wildfire incident. This would include establishing a defensible space, house hardening, putting together an emergency cache including important documents and escape plans (IAFC, 2011).

The Set section includes having the resident or business owner's vehicle prepare for evacuation. The emergency cache should be in the vehicle. It requires the for the resident or business owner to listen to the news on the wildland fire and track the wild fires progression. It also suggests looking for information from the local fire district (IAFC, 2011).

Go! stresses that the resident and business owner evacuate when it is appropriate. Evacuation early assists the firefighters by reducing the traffic flow during the most challenging times of the wildland fire. Also, when the resident or business owner leaves earlier in the wildland fire it lessens the demand placed on the firefighters to monitor the resident or business owner activity (IAFC, 2011).

Chief Tony Watson of Pigeon Forge Tennessee described RSG as, “Dynamic.” (2011) Chief Watson goes on to explain that the Pigeon Forge Fire Department has been delivering the RSG program for over a year. The delivery has been through public service announcements, wildland urban interface fire prevention material and community associations. Chief Watson (2011) describes the department’s firefighters as, “Ambassadors of the program.” The Chief went on to say that the residents and business owners had joined forces to form a solid program (Watson, 2011).

PROCEDURES

The purpose of this research paper was to identify the issues for a GGFCRD forest, brush and grass fire prevention program. The procedures in the research were personal interviews and a focus survey.

The purpose of the personal interviews were to determine the number of forest, brush and grass fires each of the three surrounding fire districts have had in the previous three years, determine what, if any, wildland urban interface fire prevention programs that are currently being utilized, and if a wildland urban interface fire prevention program did exist; what program, who manages the program, how much is funded for the program, how do you determine success and do you believe a wildland urban interface fire prevention program would benefit your community?

If there is a wildland urban interface fire prevention program in practice the following questions were asked: (a) What wildland urban interface fire prevention program do you use? (b) Who is responsible for the wildland urban interface fire prevention program? (c) . How much does your fire district fund for the wildland urban interface fire prevention program annually? (d) How do you determine that your current wildland urban interface fire prevention program is successful?

If there is not a wildland urban interface fire prevention program in practice the following question were asked: Do you believe a wildland urban interface fire prevention program would be of benefit to your community?

An interview of a chief officer from three fire districts was completed. The interviewees were: Big Corkscrew Island Fire Control and Rescue District Fire Chief, Rita Greenberg (Appendix E), North Naples Fire Control and Rescue District Assistant Chief, James Cunningham (Appendix F) and East Naples Fire Control and Rescue District Fire Chief, Keith Teague (Appendix G) . There was an attempt to interview the fire chief from each fire district, but scheduling prevented one interview and that fire district's assistant fire chief officer was interviewed. It was requested that each chief officer allow 45 minutes for the interview.

The three surrounding fire districts were chosen due to the likeness in conditions that affect GGFCRD. Examples of the conditions would be: wildland urban interface, weather, fuel load and economic challenges. The most significant condition that would have an affect on a fire district's wildland urban interface fire prevention program would be fuel load. As you move further to the south, east or north the fuel load changes considerably. To the south and east you have large, expansive grass prairies. To the

north you have hard wood forests. Neither grass prairies nor hard wood forests are found within the boundaries of GGFCRD or three surrounding fire districts.

A focus group survey was completed by the staff and line personnel of GGFCRD (Appendix F). GGFCRD staff and line personnel were chosen to assist in identifying the following: (a) If a wildland urban interface fire prevention program would benefit GGFCRD, (b) What were the benefits and challenges of a wildland urban interface fire prevention program? (c) Would the staff and line personnel support a wildland urban interface fire prevention program? and (d) Are there any additional thoughts on a wildland urban interface fire prevention program? Included in the focus group were the following: The assistant chief, fire marshal, training officer, suppression battalion chief, lieutenant, engineer and firefighter. The focus group was advised that the survey would take approximately 60 minutes.

The questions that were asked of the focus group were: (a) Do you believe that Golden Gate Fire District could benefit from a wildland urban interface fire prevention program? (b) What benefits do you believe the fire district would obtain from a wildland urban interface fire prevention program? (c) Would you be willing to find time in your schedule to participate in a wildland urban interface fire prevention program? (d) What do you see as the challenges to a wildland urban interface fire prevention program? and (e) Do you have any additional thoughts on a wildland urban interface fire prevention program?

The interviews and focus group data collecting was limited by specific factors. The interviews were limited by the number of fire districts that experience the same fuel load, weather, resources and economic challenges. These specific factors greatly reduce

the number of applicable interviewees. The focus group process limitations were due to GGFCRD's number of staff and line personnel. The limited number of personnel challenged the amount of information obtained during the focus group process.

RESULTS

The interviews provided information that compared the number of forest, brush or grass fires in each fire district, what wildland urban interface fire prevention program was being utilized in each fire district and if no wildland urban interface fire prevention program was in place would such a program be of benefit to the fire district.

Fire Chief Rita Greenberg (personal communication, June 30, 2011) from Big Corkscrew Island Fire Control and Rescue District (BCIFRD) was interviewed on June 30, 2011. The interview lasted 30 minutes. In the interview Chief Greenberg was asked and answered the questions from Appendix D.

Chief Greenberg reported that BCIFCRD responded to 228 forest, brush or grass fires over the prior three years. When asked if BCIFCRD had a wildland urban interface fire prevention program she responded that the district has no structured wildland urban interface fire prevention program. The Chief went on to say that the district has a working relationship with the Florida Division of Forestry (DOF) and through DOF has the ability to utilize wildland urban interface fire prevention program resources. At this time the Chief used a community news letter, which is an internet, home owners association, electronic mail group that she provides seasonal sensitive risk reduction information through. (Rita Greenberg, personal communication, June 30, 2011)

Due to Chief Greenberg answering question #2 in the negative, the next question asked was if, in her opinion, she believed that a wildland urban interface fire prevention program would be of benefit to the community. The Chief reported that working with DOF and utilizing the community news letter she was meeting the needs of the community. (Rita Greenberg, personal communication, June 30, 2011)

Chief Greenberg also reported that the BCIFCRD had one person assigned to inspections, prevention and public education. This person was responsible for all risk reduction programs and projects and was very limited in participation due to a lack of time. Chief Greenberg went on to say that line personnel would assist with public education when time permitted (Rita Greenberg, personal communication, June 30, 2011).

Assistant Chief Cunningham (personal communication, June 30, 2011) from North Naples Fire Control and Rescue District (NNFCRD) was interviewed on June 30, 2011. The interview lasted 25 minutes. In the interview Assistant Chief Cunningham was asked the questions from Appendix D.

Assistant Chief Cunningham reported that NNFCRD has 244 forest, brush and grass fires in the previous three years. Assistant Chief Cunningham responded to question #2 in the negative. He reported that NNFCRD has a working relationship with the DOF. And that if a circumstance occurred that required a wildland urban interface fire prevention program he would look to DOF for guidance. Assistant Chief Cunningham mentioned that the DOF had discussed the Community Wildfire Protection Plan and Firewise wildland urban interface fire prevention programs, but that in NNFCRD's the programs did not meet the needs of the community. The Assistant Chief

went on to report that he had read about RSG and was currently working on a RSG program for NNFCRD. (James Cunningham, personal interview, June 30, 2011)

Due to Assistant Chief Cunningham responding to question #2 in the negative the next question asked was, if in his opinion, a wildland urban interface fire prevention program would be of benefit to the community. The Assistant Chief responded in the affirmative. He went on to say that NNFCRD was concerned about the wildland urban interface and how to best protect the residents and firefighters during wildfire season. (James Cunningham, personal interview, June 30, 2011)

Assistant Chief Cunningham reported that NNFCRD has one person wholly dedicated to public education with assistance from other personnel when necessary. He went on to report that the public education person would be working on preparing a RSG program, which would include a presentation and home hazard risk reduction inspections. In addition, he said the RSG program would be within the capabilities and meet the needs of NNFCRD (James Cunningham, personal interview, June 30, 2011).

Chief Teague (personal conversation, July 5, 2011) from East Naples Fire Control and Rescue District (ENFCRD) was interviewed on July 5, 2011. The interview lasted 35 minutes. In the interview Chief Teague was asked the questions from Appendix D.

Chief Teague reported that ENFCRD had 193 forest, brush and grass fire during the last three years. Chief Teague responded to question #2 in the affirmative. He reported that ENFCRD has a Firewise Community. When asked who is responsible for the Firewise Community program he answered that it was a partnership between ENFCRD, DOF and the community. He went on to say that ENFCRD's public education

person was the point of contact between DOF and the community. Appendix D, Interview question #5 asks how much is funded to support the wildland urban interface fire prevention program. Chief Teague reported that there is not a specific line for wildland urban interface fire prevention. He did report that the Firewise program was included in the public education person's role. When asked how he determines if ENFCRD's wildland urban interface fire prevention program is a success, he replied that the Firewise Community only involved one community or homeowner's association and that there was still a considerable amount of work to do. Chief Teague was asked if he believe that the Firewise Community benefited the community as a whole. He reported that the Firewise program affects the community it is associated with, not the community as a whole. In regard to the community as a whole there is work that needs to be done. (Keith Teague, personal communication, July 6, 2011)

Chief Teague reported that ENFCRD's public information person wore many hats, but public education was the focus. He did report that line personnel as well as other personnel in ENFCRD would assist when necessary with public education events. He continued to add that due to the extreme economic challenges that ENFCRD are facing has eliminated any additional wildland urban interface fire prevention programs at this time (Keith Teague, personal communication, July 6, 2011).

The focus group provided information on GGFCRD's personnel opinion of a wildland urban interface fire prevention program, Appendix F. The questions asked if a wildland urban interface fire prevention program would benefit GGFCRD, what were the challenges and benefits of a wildland urban interface fire prevention program, would the

staff and line personnel support a wildland urban interface fire prevention program and are there any additional thoughts on a wildland urban interface fire prevention program?

The focus group was asked if a wildland urban interface fire prevention program would benefit GGFCRD. Of the seven participants, six replied in the affirmative, one replied in the neutral and no one replied in the negative.

When asked what benefits could be obtained from a wildland urban interface fire prevention program the answers follow: lower property losses from wildland urban interface fires, firefighter personal safety, less resources (apparatus and personnel) required, community awareness of GGFCRD's needs, lower homeowner's insurance costs, lowers costs associated with apparatus damage, personnel injuries and good public relations.

The question of willingness to find time resulted in five answering in the affirmative and two answering in the negative. When the participants were asked what were the challenges of a wildland urban interface fire prevention program the responses were: time commitment, lack of community interest, scheduling challenges, sustainment of defensible space post initial clean up, funding, motivating public during rainy season, and building community support.

When questioned on additional thoughts there were a few responses: Will GGFCRD support a program, GGFCRD provides stickers to residents that participate in a wildland urban interface fire prevention program, on narrow lots without neighbors how to prepare defensible space and provide more and better assessable gates in fenced areas.

The focus group identified multiple benefits to a wildland urban interface fire prevention program. GGFCRD has determined that a wildland urban interface fire

prevention program is important to the residents, business owners and GGFCRD. In *Forests and Rangelands* (2008) there is an article on the Olympic National Forest fire prevention program. In the article it stresses that fire prevention presentations at area events introduces and reinforces the fire prevention message (*Forests and Rangelands*, 2008). This article as well as others reinforces the reason the district is pursuing a wildland urban interface fire prevention program.

In the Applied Research Proposal three research questions were identified. It was these three questions that were the basis for identifying issues of a wildland urban interface fire prevention program at GGFCRD.

The first research question was: How many forest, brush or grass fires had occurred in GGFCRD's boundaries in the previous 36 months? GGFCRD's reporting system was used to determine that over the last 36 months 422 forest, brush or grass fires had occurred within GGFCRD's boundaries. During the interview procedure it was reported the by Chief Greenberg (personal interview, June 30, 2011) that BCIFCRD responded to 228 forest, brush or grass fires over the prior three years. North Naples Fire Control and Rescue District responded to 241 forest, brush or grass fires over the previous three years (James Cunningham, personal interview, June 30, 2011). East Naples Fire Control and Rescue District reported 193 forest, brush and grass fires over the past three years (Keith Teague, personal communication, July 6, 2011). The three districts interviewed reporting systems do not record acres consumed by fire or the dollar amount of lost property.

The second research question was: Is there a wildland urban interface fire prevention program that would align with GGFCRD's needs? Data obtained from the

Community Wildfire Protection Plan (Healthy Forest Initiative, n.d.) and Firewise (Firewise Communities, n.d.) identified that each of these two wildland urban interface fire prevention programs required resources beyond the capability of GGFCRD.

Assistant Chief Cunningham (personal communication, June 30, 2011) reported that the RSG program was in the development stage at NNFCRD. He continued to say that NNFCRD would develop a presentation and offer a home hazard risk reduction inspection. In Assistant Chief Cunningham's interview he reported that the RSG program was within the capabilities of NNFCRD and would meet the needs of the district. Chief Greenberg (personal communication, June 30, 2011) communicated that BCIFCRD did not have a nationally recognized wildland urban interface fire prevention program. Chief Teague (personal communication, July 5, 2011) responded that ENFCRD had one Firewise gated community and that there was no other wildland urban interface fire prevention programs being considered at this time.

The focus group (Appendix F) identified several factors that would be of benefit to GGFCRD if a wildland urban interface fire prevention program were implemented. The major factors were lower costs from wildland urban interface fires, safer environment for residents as well as firefighters and good public relations.

In addition to the benefits the focus group identified challenges. These most significant were: Time commitment, funding and building community support.

When the focus group was asked if GGFCRD would benefit from a wildland urban interface fire prevention program the response was over whelming in favor. Of the seven participants; six responded in the affirmative and one in the negative.

It was identified in the research that the RSG program would provide three teachable sections: Ready, requires the resident or business owner to be accountable for his/her own family, home, structures and property. The Set, section includes having the resident or business owner's vehicle prepare for evacuation. Go, stresses that the resident and business owner evacuate when it is appropriate. (IAFC, 2011). These three sections aligned with the GGFCRD's needs.

The third research question was: What would be required to implement a wildland urban interface fire prevention program for GGFCRD? In the interviews Assistant Chief Cunningham (personal communication, June 30, 2011) discussed NNFCRD's development plan. In the development plan several steps were identified as important to the success of the program: Choosing a coordinator, utilizing the firefighters, developing a power point, establishing a list of groups to present to, develop a public service announcement, contact the media, obtain program handouts and develop an attendance sheet, organization information sheet and completed home assessment sheet. In the interviews with Chief Greenberg (personal communication, June 30, 2011) or Chief Teague (personal communication, July 5, 2011) neither provided data to support the development of a wildland urban interface fire prevention program. In the focus group, the question of what would be required to implement a wildland urban interface fire prevention program was not addressed.

DISCUSSION/INPLICATIONS

The data obtained from the literature, interviews and focus group had provided information to determine the issues of a wildland urban interface fire prevention program at GGFCRD. This information will be utilized to determine what wildland urban

interface fire prevention program would align with GGFCRD and what would be required to implement the program.

Wildland fires have occurred since prehistoric times. It was not until the introduction of humans that wildfire become a concern (Nix, n.d.). In 1935, the National Fire Protection Association developed and implemented NFPA 224, *Fire Prevention for Summer Homes in Forested Areas*. Since the first writing of NFPA 224, the standard has been up dated several times and now is identified as NFPA 1144, *Standard for Reducing Structure Ignition Hazards from Wildland Fire* (NFPA, 2008). These standards emphasize the importance of wildland urban interface fire prevention.

Since the first writing of NFPA 224, there has been and continues to be a multitude of wildland urban interface fire prevention programs. Many wildland urban interface fire prevention programs are area specific and have not been recognized or embraced as a national program. This research paper has identified three nationally recognized wildland urban interface fire prevention programs: Community Wildfire Protection Plan (Healthy Forest Initiative, n.d.), Firewise (Firewise Communities, n.d.) and RSG (Ready Set Go!, n.d.).

The program, Community Wildfire Protection Plan (CWPP) requires a significant amount of resources to develop, implement and sustain. This program provides education to civilians, training and equipment to fire districts and risk reduction planning (Forest and Rangelands, n.d.). During the interview with Assistant Chief Cunningham he mentioned CWPP, in the dialogue he reported that the CWPP did meet the needs of NNFCRD (James Cunningham, personal interview, June 30, 2011). South Carolina Forestry Commission had developed and implemented a CWPP. In this example

Firewise was used at the gated community and small neighbor level and the CWPP was developed for the town or county (South Carolina Forestry Commission, n.d.). GGFCRD would not have the staff or expertise to consider such a large undertaking as the CWPP.

Firewise is a nationally recognized wildland urban interface fire prevention program. This program requires a considerable amount of resources, time and energy to meet the Firewise designation. Included in the requirements is a wildland urban specialist to assess the community and develop a strategic plan, develop a taskforce of area residents and business owners, encourage an annual Firewise Community/USA Day every spring and provide an annual report. (City of Ashland, n.d.).

During the interview procedures for this research, Firewise was mentioned in the interview with Assistant Chief Cunningham. Assistant Chief Cunningham did not identify Firewise as meeting the needs of NNFCRD (James Cunningham, personal interview, June 30, 2011). Chief Teague spoke about the Firewise program in ENFCRD. He reported that the program was a success due to the dedication of the residents of the gated community in which it was located, DOF and ENFCRD. He went on to say that due to the current economic challenges within ENFCRD that any further wildland urban interface fire prevention programs would be placed on hold. (Keith Teague, personal communication, July 6, 2011). Due to the limited staff and resources, GGFCRD would not have the capabilities to develop and implement a Firewise program.

The RSG program (RSG) was developed and delivered by the International Association of Fire Chief's (IAFC). This program is able to be provided with very limited resources; it supports Firewise and the Community Wildfire Protection Plan and is delivered as a product for the resident or business owner (IAFC, 2011).

Assistant Chief Cunningham reported that he had read about RSG and that NNFCRD was in the process of developing the program (James Cunningham, personal interview, June 30, 2011). Chief Greenberg (personal interview, June 30, 2011) reported that although BCIFRD did not have a structured wildland urban interface fire prevention program she was meeting the needs of the district by working with the Florida Division of Forestry and providing the electronic new letters. Chief Teague (personal communication, July 5, 2011) responded that, due to the demands being placed on the district's staff that there is no time devoted to a wildland urban interface fire prevention program.

Chief Tony Watson of Pigeon Forge Tennessee has been providing RSG for over one year. Chief Watson delivered the RSG through public service announcements, wildland fire prevention material and community associations. He described RSG at Pigeon Forge as a solid program. (Watson, 2011)

The data collected on wildland urban interface fire prevention programs, suggests that the RSG program would align with GGFCRD. RSG aligns well for four reasons: It meets the needs of GGFCRD, GGFCRD is capable of supporting the program, RSG provides a user friendly support system and RSG is applicable to Firewise and Community Wildfire Protection Plan.

GGFCRD is experiencing an economic challenge that has significantly reduced staffing at all levels, including command, suppression, prevention and support staff. This reduced the ability of the existing staff from writing grants, implementing large scale events and research planning for Firewise or a Community Wildfire Protection Plan.

Although the RSG program will require a coordinator to oversee the program and utilize firefighters to educate the public, it could be accomplished at very little cost.

RSG has a user friendly online support service. The site provides basic information as well as provides an opportunity to become a RSG fire district. Participating as a RSG fire district offers additional information as well as current published media on participating districts, program handouts and support material, innovative delivery concepts and the ability to communicate with other participating districts (Ready Set Go!, n.d.).

RSG is designed to compliment and support other wildland urban interface fire prevention programs. This includes Firewise Communities, Fire Smart and Living with Fire (Ready Set Go!, n.d.).

It is perceived that the RSG program will offer an opportunity to GGFCRD to address the different civic groups in the community. The presentations would provide an opportunity to GGFCRD to establish a relationship with the different groups. After the presentation is delivered there would be a question and answer period, during that time GGFCRD would answer questions in regard to the wildland urban interface fire prevention presentation as well as other questions concerning GGFCRD or residents.

Another perceived aspect of the RSG presentation that would be of value, is that GGFCRD is not soliciting funds, a vote or any other tangible item. It is an opportunity for GGFCRD to offer an educational moment and equally important to open lines of communications between the residents and business owners and GGFCRD. Although GGFCRD has scheduled monthly fire commission meetings, this would give individuals an opportunity to meet and talk to a GGFCRD representative one on one.

RSG is proposed to facilitate communications between GGFCRD and the public. It would benefit GGFCRD to return to the groups in the future to discuss wildland urban interface fire prevention as well as other topics of their choice. This would result in a closer relationship between the community and the GGFCRD.

If RSG was implemented, the research identified the organizational implications that would be anticipated were reported in the focus group's responses. The focus group reported the following: The time commitment of a program coordinator to develop and implement the program, the lack of community interest in a new program that only affects the community 4-6 months a year, scheduling challenges of line personnel to assist with the presentations and home hazard assessments and the funding of the program.

If GGFCRD choose not to implement the RSG program the organizational implications could be a continuation of current wildfire season losses. This includes loss of property, damage to apparatus and equipment and personal injury risks to the home and business owner as well as the firefighters.

RECOMMENDATIONS

The research has developed recommendations to address the problem and purpose statement of the Wildland Urban Interface Fire Prevention Program document. The recommendations, as written, should provide the guidance to develop an effective and cost efficient wildland urban interface fire prevention program utilizing RSG.

The following steps are recommended: Choose a coordinator, educate GGFCRD's firefighters on the program, solicit the firefighters for input and participation, develop a presentation power point, establish a list of civic groups, develop public service

announcements, offer wildfire home hazard assessments, provide program handouts and develop an attendance sheet, organization information sheet and completed wildfire hazard assessment sheet.

These recommendations could be a guide to implement RSG. Deviations from the recommendations presented may be necessary to meet the needs or capabilities of the fire district.

A possible progression would be to begin with the RSG program. As RSG matures and moves into the specific neighborhoods consider focusing on the communities becoming Firewise Communities. After the Firewise Community program grows to encompass multiple neighborhoods discuss what would be required to develop and implement a Community Wildfire Protection Plan.

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Appendix D

Personal Interview

Interviewee: _____ Date: _____

Fire District: _____ Position: _____

1. How many forest, brush and grass fires occurred in your fire district in the last three years?

2. Does your fire district currently have a wildland urban interface fire prevention program?

If you answered yes to number 2 proceed on with number 3, if you answer no go to number 7.

3. What wildland urban interface fire prevention program do you use?

4. Who is responsible for the wildland urban interface fire prevention program?

5. How much does your fire district fund for the wildland urban interface fire prevention program annually?

6. How do you determine that your current wildland urban interface fire prevention program is successful?

7. Do you believe a wildland urban interface fire prevention program would be of benefit to your community?

Appendix E

Personal Interview

Interviewee: Rita Greenberg_____ Date: June 30, 2011_____

Fire District: Big Corkscrew Island Fire District_ Position: Fire Chief_____

1. How many forest, brush and grass fires occurred in your fire district in the last three years?

228

2. Does your fire district currently have a wildland urban interface fire prevention program?

No

The district has not structured wildland urban interface fire prevention program.

The district has a working relationship with the Florida Division of Forestry.

The relationship between the district and the Florida Division of Forestry provides wildland urban interface fire prevention resources.

The Chief utilizes an internet based community news letter.

The news letter is sent out when an urgent message needs to be delivered

If you answered yes to number 2 proceed on with number 3, if you answer no go to number 7.

3. What wildland urban interface fire prevention program do you use?

4. Who is responsible for the wildland urban interface fire prevention program?

5. How much does your fire district fund for the wildland urban interface fire prevention program annually?

6. How do you determine that your current wildland urban interface fire prevention program is successful?

7. Do you believe a wildland urban interface fire prevention program would be of benefit to your community?

Working with Florida Division of Forestry and providing an electronic news letter meets the needs of the district.

The district has a fire inspector that is responsible for inspections, prevention and public education.

If required, line personnel will assist with public education if there is time in the work schedule.

Appendix F

Personal Interview

Interviewee: James Cunningham _____ Date: June 30, 2011 _____

Fire District: North Naples Fire District _____ Position: Assistant Fire Chief _____

1. How many forest, brush and grass fires occurred in your fire district in the last three years?

244

2. Does your fire district currently have a wildland urban interface fire prevention program?

No

The district has a solid partnership with the Florida Division of Forestry.

If the district developed a wildland urban interface fire prevention program that was beyond the district's capabilities he would look to the Florida Division of Forestry for assistance.

The Florida Division of Forestry had discussed a Community Wildfire Protection Plan with the district, but the district did not see the fit between the community and the programs.

The district is currently developing a Ready Set Go! Program.

The program will consist of the following: Choosing a coordinator, educating the firefighters on the program, soliciting the firefighters for input and participation, develop a program power point presentation, develop a list of community groups that would benefit from a program presentation, develop public service announcements for television, radio and print, procure wildland urban interface fire prevention program material, develop a home hazard risk reduction inspection form and develop program tracking system.

The program is perceived to meet the needs of the district.

If you answered yes to number 2 proceed on with number 3, if you answer no go to number 7.

3. What wildland urban interface fire prevention program do you use?

4. Who is responsible for the wildland urban interface fire prevention program?

5. How much does your fire district fund for the wildland urban interface fire prevention program annually?

6. How do you determine that your current wildland urban interface fire prevention program is successful?

7. Do you believe a wildland urban interface fire prevention program would be of benefit to your community?

Yes.

The district is concerned about the wildland urban interface and how to best meet the needs of the residents and firefighters.

The district has one person who is dedicated to public education.

The public information person will develop the program for the district.

Appendix G

Personal Interview

Interviewee: Keith Teague_____ Date: June 30, 2011_____

Fire District: East Naples Fire District_____ Position: Assistant Fire Chief_____

1. How many forest, brush and grass fires occurred in your fire district in the last three years?

193

2. Does your fire district currently have a wildland urban interface fire prevention program?

Yes

If you answered yes to number 2 proceed on with number 3, if you answer no go to number 7.

3. What wildland urban interface fire prevention program do you use?

Firewise Community.

4. Who is responsible for the wildland urban interface fire prevention program?

The Firewise Community was a partnership between the gated community, the district and the Florida Division of Forestry.

The district has one public education person, this was the point of contact for the district.

5. How much does your fire district fund for the wildland urban interface fire prevention program annually?

There is no line item for Firewise Communities in the budget.

The Firewise Community program was included in public education person's job description.

The district is under extremely challenging economic times and no funding will be allocated in the near future for another wildland urban interface fire prevention program.

6. How do you determine that your current wildland urban interface fire prevention program is successful?

The Firewise Community encompasses one gated community in the district.

The Firewise Community only affects the specific community or neighborhood where it is applied, not the community in totality.

7. Do you believe a wildland urban interface fire prevention program would be of benefit to your community?

Yes.

Due to the financial issues facing the district no funding will be allocated for wildland urban interface fire prevention programs.

The public education person has many responsibilities with wildland urban interface fire prevention being one. Currently the public education person is dedicated to assisting the district with the challenges being experienced.

Appendix H

Focus Group

Participants	Division	Position
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Date:

1. Do you believe that Golden Gate Fire District could benefit from a wildland urban interface fire prevention program?

Yes No Neutral

2. What benefits do you believe the fire district would obtain from a wildland urban interface fire prevention program?

3. Would you be willing to find time in your schedule to participate in a wildland urban interface fire prevention program?

4. What do you see as the challenges to a wildland urban interface fire prevention program?

5. Do you have any additional thoughts on a wildland urban interface fire prevention program?

Appendix I

Focus Group

Division	Position
Operations Chief	Assistant Chief
Fire Prevention	Battalion Chief
Shift Battalion Chief	Battalion Chief
Training	Captain
Suppression	Lieutenant
Suppression	Engineer
Suppression	Firefighter

Date: June 30, 2011

1. Do you believe that Golden Gate Fire District could benefit from a wildland urban interface fire prevention program?

Yes - 6 No - 0 Neutral - 1

2. What benefits do you believe the Fire District would obtain from a wildland urban interface fire prevention program?

Lower property losses from wildland urban interface fires, firefighter personal safety, less resources (apparatus and personnel) required, community awareness of GGFCRD's needs, lower homeowner's insurance costs, lowers costs associated with apparatus and personnel damage and injuries and good public relations.

3. Would you be willing to find time in your schedule to participate in a wildland urban interface fire prevention program?

Yes - 5 No - 2 Neutral - 2

4. What do you see as the challenges to a wildland urban interface fire prevention program?

Time commitment, lack of community interest, scheduling challenges, sustainment of defensible space post initial clean up, funding, motivating public during rainy season, and building community support.

5. Do you have any additional thoughts on a wildland urban interface fire prevention program?

Will GGFCRD support a program, GGFCRD provides stickers to residents that participate in a wildland urban interface fire prevention program, on narrow lots without neighbors present how to prepare defensible space and provide more and better assessable gates in fenced areas