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Ready, Set, Go!

Our vision for the future is that...

Communities situated in high fire hazard environments are designed, constructed, retrofitted, managed, and maintained in a manner that may require little or no fire suppression assistance during wildfire. Residents of these communities take personal responsibility for living in the Wildland Urban Interface (WUI), possess the knowledge and skills to effectively prepare their home for survival when wildfire is threatening, evacuate early and safely when ordered, and if trapped, practice learned skills to survive the wildfire.

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Introduction

“Changing climate and drought conditions, the build-up of hazardous fuels, and more homes in fire-prone landscapes are changing how we experience wildfire in America.” International Association of Fire Chiefs, Wildland Fire Policy Committee, 2009

Local government, like its State and Federal wildland fire agency partners have seen a dramatic increase in the severity, risks to life, property and the environment and costs associated with wildland fires over the past decade.

The Ready, Set, Go program is not an original message, it is a new approach at packaging existing public education to gain active public involvement toward reducing life and property loss associated with wildland fires. The program is presented in three steps:

1. **READY** – Prepare yourself, your family and your property.
2. **SET** – Monitor fire weather / activity and prepare to evacuate.
3. **GO** – Leave early when directed to by public safety officials.

A subsequent step is included to educate people how to survive, if trapped by a wildfire.

The Ready, Set, Go program is a collaborative process that is effective in improving coordination and communication between emergency response agencies and the community. Spending an adequate amount of time developing the Ready, Set, Go program in each community can help clarify and refine priorities to protect life, property, infrastructure, and valued resources.

The Ready, Set, Go program is organized in seven sections:

1. **Background / Problem Statement**
2. **Program Goals**
3. **Factors for Success**
4. **Preparation of Structures and People**
5. **Human Understanding and Decision Making**
6. **Contingency Planning**
7. **Recommended Actions and Desired Results**

Fire resources are maximized during major fire incidents, particularly during the initial attack, and the public must become part of the overall strategy to provide community safety. This program is just one option to explore and it can be customized to work in any community as no one program will work everywhere.

1. Background / Problem Statement

The problem is that there is a higher frequency of wildfires occurring and weather projections indicate this trend is not changing soon. Research is showing that climate change is a major contributing factor. Weather combined with the ever growing fuels management issues; indicate that wildland fires will be part of our future.

The problem is that fires can be more costly to suppress in the Wildland Urban Interface (WUI) or the areas where homes are intermixed within forests and wildlands. An increasing number of homes are at risk from wildfire as residential development continues to encroach on forest and wildland areas.

The problem is that no two wildfires behave in the same manner and, during the past decade, these wildfires are acting more erratically and the deaths and property losses are escalating. The residents who choose to stay or get trapped also cause a safety issue for public safety officials who, with already limited resources, must now try to effect rescues during these wildfires.

Historically, the fire service has conducted public education efforts to try to get the public's support in reducing fire losses. This effort began with the Smokey Bear advertising campaign to prevent wildfires. Now the focus is on getting communities to become fire-ready. There are several national and local programs that teach these tenets to create Fire Adaptive Communities. The problem is how to get the public education message listened to and turned into action by the public.

The fire problem within the WUI areas consists of two primary fuel types: accumulation of natural and exotic vegetation and the structures and ornamental landscaping that people create. Natural vegetation reduction or management is a long-term process that is becoming more difficult due to climate change and environmental conditions. This effort must continue to help restore our ecosystem and reduce fire size.

The structure fuel component is created as the population increases within traditional rural areas of the country. This fuel type is similar to timber in that lower density fuel loads require fewer resources compared to dense urban population areas. This structure fuel type is now greatly escalating the overall cost of wildland fires, both in terms of the fire suppression costs and property loss. New building codes and planning conditions are proving themselves to be effective at combating losses in new developments, but the existing structures in the WUI remain the biggest threat and the largest mitigation yield. Our greatest opportunity to reduce the impacts of wildfire lies in the implementation of "pre-fire activities", i.e., actions that take place before a wildfire occurs that improve the survivability of people and their homes. These actions

on structural fuels are usually more permanent in nature than the recurring efforts required on natural fuels.

The problem is people tend to have the expectation that, when they call 911, they will get a response to fit their needs. With an increase in population that has not had a corresponding public safety service increase; fire managers may not realistically meet those public expectations. The public must take personal responsibility for the specific hazards associated within their choice of habitation. Government must also fund public services commensurate with growth.

Over time, there is a growing problem with the number of residents that defy evacuation orders. Some of these residents are successful in staying and defending their property, but have limited training or experience and have based their actions on past wildfire experiences.

Evacuations are a local issue, based upon many factors (incident type, activity, number of people affected, fire preparedness level, road system, transportation system, relocation centers, available resources to implement plan, etc.), therefore evacuation alternatives must be determined locally. Incident commanders must evaluate all contributing factors when creating evacuation plans to achieve the highest level of public safety while balancing the challenges of a dynamic incident. The problem is that there needs to be adequate evacuation resources, uniform and consistent evacuation terminology (refer to FIRESCOPE 2007 Field Operation Guide 420-1), model practices, notification ability and re-entry procedures so residents can re-enter as early and safely as possible.

2. Program Goals

1. Protect life and property by creating and maintaining Fire Adaptive Communities.
2. Improve evacuation procedures.
3. Improve firefighter and public safety.
4. Encourage personal responsibility toward the overall solution.
5. Acceptance of the strategy to: Prepare your property and yourself, leave early, follow evacuation orders and survive.

3. Factors for Success

Fire agencies have been providing public education messages for many years, so one might ask; "Why is Ready, Set, Go different from past efforts?" The following factors will be instrumental in gaining program effectiveness:

Collaboration between the public, government and neighbors. In 1997, FEMA established Project Impact to help communities reduce their disaster tolls by building partnerships among businesses, agencies, churches, neighborhoods and others. This effort showed that amazing things can happen when working in close partnerships with one another by making long-term changes in their

disaster profiles. Project Impact identified common issues that communities face when dealing with tornados and hurricanes with the thought that, if they modify key factors that contribute to safety/damage, then the community would be better off when the next disaster occurs. Project Impact sought to change that culture to make hazard mitigation an integral part of the community and the people lives.

Use of science – Home Ignition Zone research. Traditional beliefs that homes were ignited by the flaming fire front are being disproved by scientific research studies. Jack Cohen (USFS Researcher) has done several field tests to determine how homes can be ignited and the results indicate that ember intrusion is the primary cause of home ignitions.

Target audience identification. Each fire agency must recognize their target audience to whom they intend to reach out to. This includes understanding the social, economic and demographic nature of these communities. Example, a rural community (intermix) may be more self sufficient than an urban home subdivision (interface) and the communication message needs to fit the character of the community so the target audience can readily relate. This applies to printed materials and visual graphics on videos. Fire agencies should also review the national public survey on how the public receives our current messages (PIFE study, 2008).

Recognition that government cannot be the answer all the time. The Community Emergency Response Team (CERT) training began as an offshoot of earthquake preparedness training. During a major earthquake, studies found that the limited emergency resources would be prioritized to critical infrastructure targets. This recognition of priorities also found that the CERT program would focus on neighbor helping neighbor and that the population needs to accept personal responsibility for their own preparedness and actions. It meant that residents had to accept the premise of: If you choose to live in a hazard area, then you must become more self-sufficient.

Recognizing Long-Lasting Change Takes Time. The emotions following a disaster are usually short-lived, recognizing this is paramount in allowing change agents to take advantage of this opportunity. Change management requires opportunities, perseverance and focus on the goal. One must be committed to the change being implemented, not be deterred easily and recognize that true change occurs over time, not immediately. Commitment builds trust among participants.

Setting Priorities. Stakeholders (public, fire agencies, law enforcement, media, Red Cross, utility companies and local government) may have a limited budget and time commitment toward achieving the entire program tenets. Therefore, through local discussions, these stakeholders should reach consensus on their

specific program priorities that will benefit their community. A phased-in program is better than no program at all.

Leave Early and Early Return. The public generally trusts public safety officials because of their training and experience. They should accept evacuation orders and leave early, but be ready for an early return if possible. Public safety officials will need to have re-entry plans developed as evacuation orders are issued, but they must assure the public's safety before re-entry is directed.

Understanding that no programs can be universally applied and there are clear, understandable messages. Public officials must issue direction based upon the general population. Specific direction and modifications can occur, but only when there are clear communications with the affected populace, usually in small groups with effective two-way communications.

Creating Public Education Tools to Reach the Masses. There needs to be a variety of media tools to conduct outreach for the overall goals. Community group meetings will only obtain a small percentage of residents. We must understand the needs of our urban, suburban and rural communities and develop a variety of tools and methods to reach into each residence. It's usually not the strategy or principles that fail; it's the buy-in and action of the targeted stakeholders.

Focus on our Saves and not the Losses. After every emergency incident, the media carries the story of how many lives and property were lost because these are tangible numbers. The real story is what was saved, but public officials need to identify these stories and communicate this message better.

4. Preparation of Structures and People

In the Institute for Business and Home Safety (IBHS) Mega Fire Report (2008) following the Witch fire in San Diego, California, they reported the key to protecting lives and reducing property losses begins with hardening structures. Structures within the wildland are not lost from direct flame impingement, but rather from the ember environment. Embers may precede the flaming fire front, carried by the winds and distributing burning brands or embers over long distances. These embers fall, or are wind driven into receptive fuels at structures, often going undetected for some time. As the fire front passes, these small embers may ignite incipient fires that spread to the home and then from home to home in a neighborhood. Key retrofits include fire-safe roofs and **vent rescreening to 1/8 inch mesh.**

In new developments, updated fire and building codes are addressing proper home locations and construction types. Older, existing residences need to make retrofits to improve the structure's survivability. These actions need to include defensible space areas, water supply, access, identification and ornamental landscaping. There are also maintenance issues involved in living within the

WUI. Residents should reduce the ability of embers to start small fires by cleaning leaves, **pine needles, twigs and branches** off roofs and rain gutters. They should also remove combustibles near the structure like firewood stacked by the house, patio furniture, attached wood fences and ornamental landscaping.

People need to mentally prepare themselves to handle the stress of a wildfire. They need to create situational awareness of wildfires by understanding what the fire environment is like. Then they need to create their own Wildfire Action Plan with a checklist to enhance their preparedness status.

5. Human Understanding and Reaction

Researchers indicate that it takes a significant amount of mental preparation by homeowners to not panic and flee when flames are licking at their doors. “The noise alone of a wildfire front is phenomenal. Then the sun goes away, and the sky goes dark in the middle of the day. It’s haunting and the people need to understand that before they ever think about staying.”
(<http://news.ucanr.org/newsstorymain.cfm?story=1180>)

Ready, Set, Go is a program that tries to provide real-life wildfire situational awareness for the public. Fire agencies will instruct what it’s like before, during and after a firestorm from a firefighter’s perspective. The public will learn that even experienced firefighters never treat one fire like the next as fire, fuel and weather conditions constantly change, making every fire different. Hopefully, the public will learn from the firefighter’s experience and when a trusted public safety official issues evacuation orders, the public will leave early so they don’t become trapped.

Studies have shown that people who are taught about certain tactics and train on exercising those tactics have a higher level of repeating those skills as a reaction, not decision making during adverse conditions, based upon training and experience. The fire service cannot readily expect that the public will act and make decisions as trained firefighters do during a firestorm condition with only limited training. The “fight or flight” syndrome occurs during these times and may manifest itself as panic or irrational behavior. This is why this program focuses on the reaction to: **LEAVE EARLY!**

6. Contingency Planning (how to survive, if trapped)

Everyone who lives within a WUI area should have a contingency plan developed before a fire starts in case they can’t, or are prevented, from evacuating. Fire service officials do not endorse anyone defying an evacuation order, but they realize some people may get trapped and should have basic survival skills. These skills are based upon public education information that provides the resident with some situational awareness, proper actions to take before, during and after a fire.

Some residents have experienced a wildfire and may have the expectation that one fire behaves like another. This false assumption can lead to complacency and reduce preparedness. Just as experienced firefighters know that every fire behaves differently, residents must be educated on fire behavior to understand its complexity and danger. This is not learning how to fight a wildfire; it is a component of survival skills.

7. Recommended Actions and Desired Results

This program is just one option for a local government or fire agency to consider adopting. It is a generic baseline public education program that can be modified to fit a community's needs and desires. There also needs to be collaboration between stakeholder groups involved; public, law enforcement, media, Red Cross, utility companies, government officials and the fire service.

There are several tools and processes that can be used for program implementation:

- A.** Conduct regional community meetings to provide an overview of the wildland fire problem and the basic tenets of Ready, Set, Go. An overview video message and the Wildfire Action Plan are available. This action is just an orientation and not a fully implemented program. It may be introduced by high ranking fire officials and public education specialists.
- B.** The next step is to begin to reach the masses by mailing Wildfire Action Plans to targeted groups and conducting small focus groups via CERT, FIREWISE groups, Fire Safe Councils, CWPPs, etc. These small group meetings are best instructed by the local fire company who has ties to these groups. The public relies on these firefighters every day and trust what they say. These firefighters are also the ones who can modify and/or provide specific information to these residents based on local conditions. A video message is available that shows the hands-on actions homeowners must take to implement the Ready, Set, Go program at their own home.
- C.** The public education program needs to have commitment of all stakeholder groups, so there is a consistent message being transmitted to the public. This is especially true for those communities within the same media market.
- D.** This is not a one-time public education campaign. To be successful, it needs to be an on-going effort to reach residents who continue to relocate into WUI areas and may not have any experience with wildfires. The printed Wildfire Action Plans and video messages were designed as a more passive method to reach the masses and can be mailed or posted on fire agency Web sites.

Remember – There's only one action when ordered to evacuate – "LEAVE"

Links and Resources

General Resources

- California Fire Alliance—CWPP Resources: <http://cafirealliance.org/cwpp>
- Firewise website: <http://firewise.org>
 - Key Public Opinion Research Findings on the Ecological Role of Fire and the Benefits of Fire Management, Partners in Fire Education (PIFE) study, 2008
- The Healthy Forests Initiative and Healthy Forests Restoration Act:
<http://www.fs.fed.us/projects/hfi/field-guide/web/page15.php>
- International Association of Fire Chief's Leader's Guide for Developing a Community Wildfire Protection Plan: http://www.iafc.org/associations/4685/files/CWPP_rev062005.pdf
- National Database of State and Local Wildfire Mitigation Programs, a source for information on ordinances: <http://www.wildfireprograms.usda.gov>
- Tribal Wildfire Resource Guide (2006), Intertribal Timber Council: http://www.itcnet.org/issues_projects/issues/forest_management/reports.html
- Nevada's "Living with Fire" program
- BLM Partnership Web Site: <http://www.blm.gov/partnerships/tools.htm>
- Western Collaborative Assistance Network: <http://westcanhelp.org/>
- Forest Service Partnership Resource Center:
<http://www.partnershipresourcecenter.org/index.shtml>
- FIRESCOPE 2007 Field Operations Guide ICS 420-1, Chapter 20 "Protection Action Guidelines)
- Project Impact 1997, FEMA
- Rural Voices for Conservation Coalition (Collaboration issue paper): <http://www.sustainablenorthwest.org/quick-links/resources/rvcc-issue-papers>
- Strategies for assisting low-income and underserved communities develop and implement CWPPs: <http://ri.uoregon.edu/programs/CCE/communityfireplanning.html>

Reducing Structural Ignitability

- Australian Safe in Place information:
http://www.rfs.nsw.gov.au/dsp_content.cfm?CAT_ID=202 and
http://www.rfs.nsw.gov.au/dsp_content.cfm?cat_id=515
- California Ignition-Resistant Building and Fire Codes:
http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes.php
- Firewise Guide to Landscape and Construction, booklet:
<https://www.cmsassociates.com/firewise.nsf/avcatalog?open>
- Wildfire! Preventing Home Ignitions DVD, explains the research of Jack Cohen, USDA Forest Service, on how homes ignite and how to minimize potential for ignition: <https://www.cmsassociates.com/firewise.nsf/avcatalog?open>

Reducing Structural Ignitability: Articles and Publications

- Cohen, Jack. Structural Vulnerability and the Home Ignition Zone: The key to preventing residential fire disasters during extreme wildfire, letter from Jack Cohen to Douglas McDonald, Feb. 4, 2008
- Cohen J. 2001. Wildland–urban fire—a different approach. In: Proceedings of the Firefighter Safety Summit, Nov. 6–8, 2001, Missoula, MT. Fairfax, VA: International Association of Wildland Fire & other articles by Jack Cohen: http://www.nps.gov/fire/public/pub_publications.cfm.
- Institute for Business & Home Safety, (IBHS) 2008 Mega Fires – Witch Fire Study
- ICC, International Wildland-Urban Interface Code 2006, International Code Council, Country Club Hills, IL, 2006
- NFPA 1141, Standard for Fire Protection Infrastructure for Land Development in Suburban and Rural Areas, 2008 edition, National Fire Protection Association, Quincy, MA, 2007
- NFPA 1144, Standard for Reducing Structural Ignitions from Wildland Fire, 2008 edition, National Fire Protection Association, Quincy, MA, 2007

Fuels Reduction and Restoration Resources

- The National Association of State Foresters Field Guidance for Identifying and Prioritizing Communities at Risk: <http://www.stateforesters.org/reports/COMMUNITIESATRISKFG.pdf>
- Management Tools for CWPP Implementation: Stewardship Contracting and Biomass Utilization <http://ri.uoregon.edu/programs/CCE/communityfireplanning.html>
- Woody Biomass Utilization Desk Guide: http://www.forestsandrangelands.gov/Woody_Biomass/documents/biomass_deskguide.pdf
- USDA Forest Service Stewardship Contracting Resource page: <http://www.fs.fed.us/forestmanagement/projects/stewardship/index.shtml>

Monitoring and Evaluation Resources

- Community Wildfire Protection Plan Monitoring and Evaluation Guide: <http://ri.uoregon.edu/programs/CCE/communityfireplanning.html>
- Public Response to Wildfire: Is the Australian “Stay and Defend or Leave Early” Approach an Option for Wildfire Management in the United States?, 2008, Sarah M. McCaffrey and Alan Rhodes
- Multiparty Monitoring Resources:
 - Rural Voices for Conservation Coalition—Multiparty Monitoring Issue Paper: <http://ri.uoregon.edu/programs/CCE/communityfireplanning.html>
 - USDA Forest Service Collaborative Restoration Program—Multiparty Monitoring Guidelines: <http://www.fs.fed.us/r3/spf/cfrp/monitoring/index.shtml>
 - Red Lodge Clearinghouse: http://www.redlodgeclearinghouse.org/resources/handbook_full.htm