



MITIGATION Outlook

"taking action today to reduce the effects of tomorrow's disasters!"

Mitigation Office
Arizona Division of Emergency Management (ADEM)

May - June 2007

V
O
L
U
M
E

1

E
D
I
T
I
O
N

2

MITIGATION BASICS

Floods, wildfires, winter storms and other hazards injure and displace people every year. While no one can prevent disasters from happening, their devastating and costly effects on people, property and the environment can be reduced or eliminated. Taking action to reduce this long-term risk is called hazard mitigation.

The first step towards building a safer community is to understand the hazards and risks you face. Determining the best approach to identifying potential mitigation measures requires community-wide

planning. These invaluable efforts will greatly assist in not only preventing or reducing losses if a disaster strikes, but aid in the recovery and rebuilding process.

Some example of mitigation strategies include:

- **Retrofitting** - designing or modifying a structure to make it more resistant to disaster damage.
- **Acquisition and Relocation** - homes repetitively damaged by floods may be purchased and homeowners relocated out of the floodplain.

- **Building Codes and Regulations** - modifying or adopting building codes and regulations to reduce property loss and damage.
- **Landscaping** - creating a defensible space around your home.
- **Public Awareness** - informing the community about potential mitigation opportunities.

While no means of prevention can completely eliminate the effects of disasters, hazard mitigation can significantly reduce the long-term impact.

WILDFIRE PROTECTION TIPS



Rodeo Chediski Fire

It's fire season in Arizona. Our high temperatures along with our drought conditions increase the potential for devastating wildfires. Wildfires have dramatically increased over the years causing injuries to people, and damaging property and

the environment. People who own homes in or near forested areas are vulnerable to these destructive fires.

You can protect your home from wildfires by following these basic tips:

Create and maintain a defensible space around your home and other outdoor structures.

- Thin and remove vines, trees, shrubs, tall grasses and other flammable vegetation within 30 feet from your home.
- Prune bushes and shrubs, remove dead leaves and overhanging branches.
- Regularly clean your roof and gutters by removing leaves, branches and pine needles/cones.
- Remove trash and debris near your property.

- Plant fire resistant plants.
- Place woodpiles and wooden picnic tables away from structures.
- Store combustible or flammable materials in approved safety containers away from structures.

Create a secondary safety zone at least 125 feet around structures.

- Remove fallen trees and firewood debris.
- Trees or bushes should be thinned to maintain 10 feet between tree canopies.
- Trim trees up from the ground to eliminate ladder fuels.
- Ask the power company to clear branches from power lines.

Taking these simple steps will help you protect your family and home from wildfires.

In This Issue:

| | |
|-----------------------------------|-----|
| Mitigation Basics..... | 1 |
| Wildfire Protection Tips..... | 1 |
| Fire Facts Quiz..... | 2 |
| Hazard Mitigation Planning..... | 2 |
| PDM-C Update..... | 2 |
| HMGP Update..... | 2 |
| Drought and Wildfires..... | 2-3 |
| Mitigation Project Spotlight..... | 3 |
| Wanted!..... | 3 |
| The Mitigation Staff..... | 3 |

For additional wildfire resources, please go to www.az211.gov and/or www.firewise.org. You can also read about the threat and prevention of wildfires on FEMA's web site at <http://www.fema.gov/hazard/wildfire/index.shtm>.



FIRE FACTS QUIZ

1. True or False

More than two out of every five forest fires are started by people.

2. Multiple Choice

_____ fires and 152,428 acres burned in Arizona in 2006.

a) 1,078 b) 3,080 c.) 860

3. What are the three elements that must be present in order for fire to burn?

(Check your answers on page 3.)

PDM-C UPDATE

ADEM has not received any information on the Pre-Disaster Mitigation Competitive (PDM-C) grant projects which were submitted to FEMA for potential funding. ADEM anticipates receiving information in May or June. We will keep you posted!



HMGP UPDATE

Section 404 of the Stafford Act, as amended, authorizes federal funding for hazard mitigation measures under the Hazard Mitigation Grant Program (HMGP). In September 2006, FEMA declared a major disaster for Arizona due to summer monsoon floods in Gila, Graham, Greenlee, Navajo, Pima, and Pinal Counties. In reviewing the projects submitted for HMGP under this declaration, there are still some monies available to assist jurisdictions with viable projects. Monies were initially available only to applicants in the declared disaster areas. Since HMGP funds are still available, ADEM is now accepting applications statewide through August 10, 2007. If you would like to submit a project for consideration, please contact Bob Kimmell.

HAZARD MITIGATION PLANNING

Chances are your community now has an approved hazard mitigation plan. This plan is a living document that requires adjustments to maintain its relevance and remain a useful tool and resource.

Your hazard mitigation planning team should continuously monitor and document any changes to the recommended actions in your plan. This is essential for determining the progress made on your hazard mitigation initiatives and in performing your annual evaluation. Annual evaluations are critical to updating your plan every five years as required by the Federal Emergency Management Agency (FEMA).

Your planning team may ask the agencies or people with duties identified in the mitigation strategy to submit a progress

report on projects being implemented. If there are issues with a project or program, the planning team will be better able to understand the problem. We recommend the following information be included in the progress report:

- The action's objectives.
- The lead and supporting agencies responsible for implementation.
- Estimated duration of the project, including timelines and milestones.
- Availability of resources needed for implementation, funding, staff time and technical assistance.
- Types of permits or approvals required to implement the actions.
- Details of how the actions will be accomplished and who the duties will be assigned to.
- Current status of the project, including issues hindering progress.



DROUGHT AND WILDFIRES

Drought conditions in Arizona make the state especially vulnerable to wildfires. In general, Arizona has received less precipitation than average every year since 1996, with the exception of 1998. Rain is an important form of precipitation, but reduced snowpack in the mountains is just as important in the effects of drought.

Studies show there is a significant correlation between drought and wildfires. Extended periods of drought will increase the fire risk with hotter and faster spreading fires because land cover is present, but extremely dry. Wildfire danger calculations include fuel moisture as a significant factor. The ignition point of drier fuel is lower than that of fuel con-

taining more moisture. Therefore, dry fuels are ignited more easily and the radiated heat from an existing fire will ignite drier fuels further away than for moist fuels, causing a more rapid spread.

A fire that starts in a properly thinned forest with healthy, non-drought affected trees will often stay on the ground. However, if the trees are dry, fire will start burning up the trees in a "laddering" effect and can eventually reach the canopy of branches. The fire then spreads along the canopy much faster than it would spread if restricted to just the grasses and litter on the ground.

Severe drought conditions cause another major problem. Trees that are

continued on page 3 

MITIGATION PROJECT SPOTLIGHT

The Cottonwood Wash Barrier Project was constructed at a low-water crossing at Cottonwood Wash in the Town of Pima, Arizona. Storm water runoff from heavy rainstorms flow through the Cottonwood Wash making the wash impassable and posed a significant hazard to motorists who try to drive across. To solve this problem, the Town of Pima erected swinging gates on either side of the wash, effectively creating a barrier to protect people while eliminating the amount and cost of public safety manpower previously required.



In order to fund this mitigation project, the Town of Pima applied for HMGP funds which are administered by the Arizona Division of Emergency Management (ADEM). The HMGP is a post-disaster program and becomes effective after a Presidential Disaster Declaration. In this case, HMGP became effective after the 2005 Winter Flood disasters. The project was completed within three months with a total project cost of \$12,500. The federal share paid \$9,375 of the total cost and the local share paid the remaining \$3,125.



Cottonwood Wash Project

The Mitigation Office is still in the process of developing a comprehensive mitigation web site and we welcome you to link to our page when completed.

(DROUGHT AND WILDFIRE continued from page 2)

stressed by lack of moisture are more susceptible to insects. Insects can thrive and eventually kill the trees. The dead trees then dry out more and become a fuel for wildfires. Arizona has lost millions of trees to Bark Beetles over the past several years during the driest periods.

Drought conditions can also hinder fire suppression tactics because of inadequate water supplies. Also, dry soils impede fireline construction, aviation activity, and the "mop-up" of hot spots.

For additional information on drought, please view the Arizona Department of Water Resources (ADWR) web site at www.azwater.gov.

Fire Facts Answers:
 1. **False:** It is more than **four out of every five** forest fires are started by people. Negligent human behavior, such as smoking in forested areas or improperly extinguishing campfires, is the cause of many forest fires.
 2. **3,080** fires were burned in Arizona in 2006.
 3. **Oxygen, fuel and heat** combine to make what is called the "Fire Triangle." These are the three elements needed for fire to burn.



WANTED!

We encourage you to share your community's completed and ongoing mitigation project stories to be featured in the *Mitigation Project Spotlight* as well as the Mitigation section of ADEM's web site. **Submissions are due the last Monday of each month.** You may post this newsletter on your web site to reach more people in your community. Please contact Nenetta Alfonte for additional information.

THE MITIGATION STAFF

Darlene Trammell
 State Hazard Mitigation Officer (SHMO)
 (602) 231-6254
darlene.trammell@azdema.gov

Robert (Bob) Kimmell
 HMGP/FMA/RFC Program Manager
 (602) 231-6349
robert.kimmell@azdema.gov

Courtney Walters
 Administrative Assistant
 (602) 392-7539
courtney.walters@azdema.gov

Susan (Sue) Wood
 State/Local Planning Manager
 (602) 392-7518
susan.wood@azdema.gov

Nenetta Alfonte
 Outreach/Web Site Coordinator
 (602) 231-6379
nenette.alfonte@azdema.gov

Fax No. (602) 392-7538

