



# FOUR MILE FIRE PROTECTION DISTRICT newsletter

## Interview with 4 Mile Volunteer Clark Woodward

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Volunteer Clark Woodward

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*by Annette Dula, Newsletter editor*

### **How did you become involved in the Four Mile Fire Department?**

I'm a friend of volunteer Chris McKenny (now the Assistant Chief). Chris got me interested and then-Chief Margaret Hansen recruited me. I've been a volunteer for 4 years. It took me 8 months to get my feet wet. I've been active for 3 years.

### **Do you remember the first time you went on a call?**

My first memorable call was when a truck went off the road. It was full of painting supplies and it was on fire. I got into my bunker gear, grabbed a SCBA (self-contained breathing apparatus) air pack and off I went. I've been committed ever since.

### **What kinds of things do you do in the Department?**

I work at home so I have the freedom to respond to about 80% of fire and medical calls. I think it is important to go to as many calls as possible. We learn to work together that way. I help maintain the brush truck and I helped design the logo for the Department clothing. More recently, I've been setting the Department up with computer software I've developed that helps us to survey structures for wildfire hazards.

### **As a relatively recent graduate of CU, tell us more of how you've combined your educational background and professional interests with being a volunteer firefighter?**

I was a geography major and as part of my education I worked on GIS (geographic information systems). GIS allows you to combine different sources of mapping information to answer complex questions. Two years ago, then-Chief Margaret Hansen asked me to use GIS to map the WHIMS (Wildfire Hazard Identification and Mitigation Systems) data that the Department had previously collected. The WHIMS project gathered information about all the homes in the District, which the Department can use to assess the risk to each home in case of a wildland fire. The Department's needs and my interest in GIS gave me an opportunity to develop the survey and mapping software that I mentioned.

So I started a business building software for firefighters. Using the software, which runs on a Palm Pilot handheld computer, a firefighter can go out, assess a home and answer the WHIMS survey questions. Previously we did this with paper and pencil in the field and then later entered the information into a computer database. That took a long time, and then we still couldn't see the information displayed on a map of the district. With the software my company

*cont'd p.7*



**Four Mile Volunteer Clark Woodward**

# Four Mile Fire Department Begins Wildfire Hazard Assessment

The Four Mile Fire Department is undertaking a survey of the homes, available water sources and other geographic information, to help us prepare for future wildfires in our district. Collecting this information before a fire gives us invaluable knowledge when defending our community. In the following months, trained volunteers will be visiting each of the homes to collect the following types of information:

## **Access to your home**

Knowing the type of driveway or road that you use to access your home helps us send the correct type of fire engine to your home. For example, some steep or windy roads are only accessible by shorter four wheel drive engines. Also knowing whether we can turn an engine around at or near your home is a critical safety issue for fire fighters.

## **Nearby Water Sources**

Since our district does not contain much water, our volunteers will be collecting information about different water sources including location, size, and proximity to your home. We will identify the closest large water source to each home, critical time saving information during a wildfire or house fire.

## **Landscaping**

Identifying the type, density and proximity of vegetation to your home is another important part of our survey. Dense vegetation adjacent to homes makes defending your home more difficult. Thinned trees and mowed grasses can often mean the difference between success and failure for firefighters.

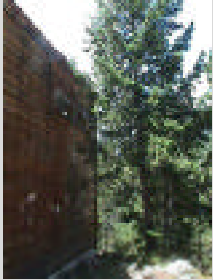
## **Construction**

There are many different types of home construction. Some are more vulnerable to ignition by wildfire than others. Our volunteers will collect information about decks, siding and roofing materials.

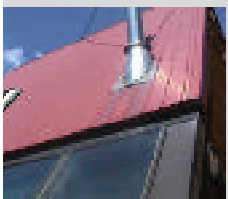
## **Possible Mitigation Ideas**

While we are at your home our firefighters will look to see if there are any obvious efforts that you can take to reduce your risk of losing your home during a fire. Ideas such as removing leaves, grass or wood from under decks and gutters can be quite easy and very effective.

As many of you know we undertook a similar survey several years ago. New homes have been built and many others have changed. We want to ensure that we have complete and accurate information about the homes. These surveys are for use only by the officers of the department and will not be made public. Please feel free to ask the surveyors to explain any part of the surveys. We are also available to present to you and your neighbors a more in-depth discussion about wildfires and their effect on our community and your home.



any factors influence risk to your home in wildland fire, including distance to nearby vegetation (above: tree next to wood house is a hazard) and construction materials (below: metal roof won't burn).



# What to Do When Your Dinner Catches Fire (...Seriously...)

by Bret Gibson

About this time last year a neighbor had a kitchen fire. Two folks were cooking up some deep fried food when the oil caught fire. The fire spread quickly to the cabinets above and threatened the house. I won't keep you in suspense: the house was saved and no one was hurt. The fire damaged the stove, two cabinets, some boxes and a bit of pride.

So why write about it? Well, we can all learn from such events. We can learn to heat oil slowly and to never leave it unattended. We can learn to cover the flaming pot with a metal lid or cookie sheet to smother the flames, to never throw water or use a wet cloth on the fire because a violent steam explosion will occur. Never pick up or move a flaming pot. You can be severely burned and the fire can easily spread.

Call the Fire Department (911) first, then try to put out the fire. Use an ABC extinguisher only if you already know how and if the fire is small and in one location. Remember to always fight the fire with an exit at your back. If the fire does not go out, evacuate the home. If you do put the fire out, call the Fire Department. Why call the Fire Department if you've already put the fire out? Simple: we are experts at fire. We know how and where to look for hidden fire extension (where the fire has spread, but you can't see it yet). In the case above we found fire smoldering in boxes above the stove an hour after the fire was "put out". We will come and make sure your home is safe (we want to)—and anyhow—who better to tell your heroic story to than "firefighters"?

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# Not Your Car in the Creek...?

Winter's here with early nightfall, freezing temperatures, hazardous road conditions, and hot toddies. It's the time of year when we get those "car in the creek" calls. We get most of them late on a Friday or Saturday night, after the party's over. Snow melting during the day freezes on the road when the sun goes down, leaving a thin slick of invisible ice. You come barreling around the curve just a little fast (yes, we know some of you enjoy zipping around those curves) and—whoops—before you even know it... your car has spun out into oncoming traffic, or skidded off the road into the creek or smashed into a nearby tree. That's when we hear about it ("*Four Mile Fire Department, respond to unknown-if-injury accident at ...*"). If you're lucky you get off with a damaged vehicle and injured pride. But if you're not so lucky—and it happens, believe it!—people get hurt or even killed. We always respond, but those are the calls we sure hate to hear.

Slow, slow, slow! Think about it (in fact, think about it next time you're driving the canyon.) The canyon is nine miles long from Sunset to Boulder Canyon. At 25 miles per hour, you can drive the entire length of the canyon in 21 minutes. At 35 mph it takes just over 15 minutes. Honestly: Is that six minutes worth risking a serious accident? And you already know about the hazards of drinking and driving, right...? All the above (but more likely, because your reflexes are slower)—and as a bonus, (assuming you survive) you get to explain yourself to the judge. No matter how good a driver you are—four-wheel drive or no—**please** take it easy on the roads this winter! Slow down—and enjoy the drive. Don't end up in the creek!

# Fell Those Trees, Now!

by Margaret Hansen

**Prime cutting time is from the first hard freeze to around May 1st. If you cut in the summer, you risk attracting the beetle.**



**Spruce budworm killed the top of this tree, a symptom of an unhealthy forest.**

**You can help by thinning the forest and watching for beetle infested trees. But cut now, not in the summer!**

This is the season to protect your home from next summer's wildfires. Sharpen your saw.

The problem: We live in a very unhealthy forest that will spread a fire that is too hot for firefighters to stop. If your house is in the path of such a fire and you have not done adequate mitigation to the adjacent forest to change the fire's behavior, run for your life as you wave goodbye to your house.

It wasn't always so. Before the miners arrived in 1859, frequent low intensity fires kept the forest healthy. Fire scars on old trees indicate that "ground" fires occurred every 15 to 20 years. A ground fire clears out underbrush, small seedling trees, and duff made up of needles and pine cones. But it does not kill larger trees. Some of these fires were from lightning strikes, but many were set by native Americans to improve forage for game and make the game easier to hunt. The result was a forest with an average of 70 feet between tree trunks and trees of varying age; a park where there was sufficient moisture to support the vegetation. If your house is in such a forest and you keep the area around the house free of flammable materials, it will survive an approaching fire without the Fire Department's help.

The miners changed the forest. They cut trees for mine timbers, cabins, and heat. Dee Bailey's old pictures (pp. 5, 8) show many of the hills in Four Mile denuded of trees. The forest came back into its present unhealthy condition because, by the time it started to regrow, fire suppression was considered a good thing to do.

The result: The forest is too dense for the available moisture. It is mostly single aged. Although the trees vary in diameter, the majority are 60 to 80 years old. Size has been determined by which tree got the most moisture. Large areas have 90% or more of one tree species. All these factors combine to make the forest ripe for beetle infestation. And various beetles are having a field day

because weak trees cannot overcome a beetle attack.

Weak fir and spruce trees are attacked by the Spruce Budworm. The moth lays its larvae on undersides of needles in July. The larvae begin eating new growth the following spring. Usually the damage starts near the top of the tree and works downward, taking more than one year to kill the tree. If you thin the forest so it has healthy trees and a diversity of species, spiders and birds will control the outbreak. You can see the result of an outbreak in an unhealthy forest on the south side of the canyon west of Copperrock. Firefighters can not stop a fire in a forest with that much growth.

Weak ponderosa's worst enemy is Black Bark Beetle. Over the last few years you probably have noticed an increasing number and size of brown clumps of trees. This is the Black Bark Beetle working toward another epidemic. In the early 1970s many areas lost most of their ponderosa. Look at the east face of Melvina Hill. It was dense forest. Now it is primarily juniper, a high fire danger tree.

Black Bark Beetle has one generation per year. Starting about the beginning of August, adult beetles fly from the trees they killed while larvae to attack new trees. Depending upon how warm the early spring was and how long it stays warm in the fall, flight can span from the middle of July until freezing weather. A healthy tree will secrete enough pitch to repel the beetle. A stressed tree gives off ethylene gas which attracts the beetle. An attack is almost always fatal within a year because the beetle carries blue stain fungus, which clogs the tree's pores.

If the Black Bark Beetle successfully attacked a tree on your property last fall, that tree needs special treatment to keep the beetle from killing nearby trees this year. The treatment options, which apply to all branches over 2 inches in diameter, are: burn it this winter, strip all the bark off to kill the larvae by drying, or poison and cook the beetles. The last method requires that you spray it with a recommended poison (check with

McGuckin or a nursery), stack it in a sunny location, and cover it completely with 6 mil plastic. Seal any punctures in the cover with duct tape. Hold down the bottom edges of the plastic with rocks to keep it from blowing off, then shovel dirt on the edges to completely seal the plastic to the ground. The poison will not be 100% effective. Block the escape of any larvae that matured into beetles.

Now is the time to thin the forest because all the destructive larvae are snuggled up in their trees. You have time to remove or store the wood so you do not attract adult bugs onto your property next summer. Prime cutting time is from the first hard freeze to around May 1st. If you will burn the wood in your wood stove or fireplace, this is also the ideal cutting time because there is less sap in the tree, which results in less creosote clogging your chimney. Remove all slash from your winter cutting by July. Do

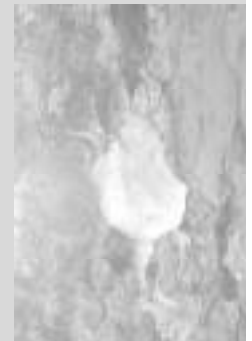
not stack new cut wood against a live tree. Both slash and logs smell attractive to bugs.

Some guidelines for both a healthy forest and improved wildfire safety: The outer branches of adjacent trees should not touch. The State Forest Service recommends 10 feet clear between trees. Trees do not grow in a uniform pattern; your actual spacing will vary. If you have a clump of 2 or 3 trees which you want to save, treat them as one tree and provide clear space around the clump. Keep trees of different ages and different species so a single pest cannot wipe out the whole stand.

For specific help with your property, call Bret Gibson, Chief, at 303-444-0882.



**Town of Crisman, c. 1884 looking west toward Logan Mill. Notice how sparse the forest is on the hillside, compared with today. Before the miners settled in the district, natural ground fires kept the forest healthy. Miners cut trees for fuel, and by the time the forest grew back, our modern approach to fire suppression allowed much thicker growth. The result is an unhealthy thick forest that will burn fast and hot. *Special thanks to Dee Bailey for providing the historic photographs.***



**A Sign of Trouble**  
**It's hard to photograph, but here's a pitchout from a Black Bark Beetle attack on a ponderosa pine. The beetle eats a hole in the bark, and the tree emits a glob of goopy yellow-white sap to repel the beetle. The sap often drips down the trunk of the tree. See story opposite.**

# From the Chief: New Apparatus is on the Way



Chief Bret Gibson

We are really getting to be up-town. The Four Mile Fire Department is about to turn a corner. Soon, the average age of our fire trucks will be **lower** than the voting age. This is made possible with the up-coming arrival of the **new** Engine three. This truck will replace a 1971 Ford mini-pumper that has served us well, but whose time has come.

The old Ford was purchased as a “used” vehicle and put into service as a “temporary truck” — one that we intended to sell just as soon as the new Engine One was in service. That was ten years ago. At that time, the Boulder Mountain Lodge donated land for a station, and a new home for Engine Three was born. With the majority of our calls coming from nearby Boulder Canyon, it filled a real need.

But tired and just plumb wore out, the old fire truck is stepping aside for a new 2000 International 1700 series custom built fire truck. Margaret Hansen designed the new truck with the help of Chuck Gray and a great deal of input from the Department officers and fire fighters. Similar to Engine One, the new Engine Three will

feature a 750 gallon per minute pump with state of the art compressed air foam system, four wheel drive with a turning radius that make Subarus jealous. A sleek low profile design makes getting equipment on and off a pleasure, as well as driving almost as easy as the family car. This new rapid response truck with full firefighting capabilities will be a most welcome new addition to our fleet. Look for it to be in your area around July!

With this new equipment on the way—and more planned—we’ll be even better able to fight the fires and get aid to those in need. But we all must remember that the first and **best** line of defense from disaster is prevention. Our canyon has not had a full house fire in several years. This is not because the fire fears our new trucks or our trained firefighters. Instead, this is more likely a result of our collective preventative measures, and quick response to trouble. The fifteen-dollar smoke detector, the thirty five-dollar fire extinguishers, and taking a few extra moments on the drive through the canyon. These are truly what have kept you and your neighbors safe and happy. Please keep up the good work and never hesitate to call on us for trouble or just to ask, “How can I make it safer?”

May the year 2002 bring you peace and harmony, may it be safe and filled with joy.

Bret Gibson  
Your Fire Chief

**Four Mile’s new engine Three is under construction. It’s planned to be in service by summer.**



developed, we can gather the survey data and then see the homes we've surveyed on a map. I've been lucky to be part of a Department that has worked with my company in developing this software.

**What has been the most difficult part of your training as a volunteer?**

Keeping my skills up. Fortunately, Four Mile has a low call rate. But this means that we don't get to practice what we learn in training. I keep my skills honed by volunteering in the emergency room at the hospital and by riding along in ambulances. As for training, I used to want to know a little about everything. But for the last two years, I've focused primarily on medical training and wildfires. Now, I think I can better serve the department by focusing on just a couple of things.

**What do you like best about being in the Fire Department?**

In addition to the 'warm-fuzzy' feeling of being part of a community, I'm turned on by the mental and physical challenges of working in emergency services. I particularly enjoy the problem-solving aspect of emergency work. You've got to be flexible and know how to adapt to a situation. I like that.

**Is there anything that troubles you particularly about being a volunteer firefighter?**

Sometimes I get nervous and don't feel confident that I can perform the job that I need to do. Sometimes I worry that I'm in over my head. That's why it's important that we train every month.

**Most of our firefighters are home owners, rather than renters. Why do you as a home renter give up your free time to fight fires, respond to emergency medical calls and go to trainings?**

I had the opportunity to buy a house, but I decided to start a company instead. By the time I became a firefighter I had settled into the house that I rent in Four Mile and I felt that I was part of the community. Being a resident here in the community and being part of the fire department go hand-in-hand for me. Besides, I enjoy helping people.

**What have you learned from being part of the Four Mile Fire Protection District?**

Generally I've learned a lot about firefighting and emergency services. I've learned a lot about wildfires, about how they burn; I've learned tactics for fighting them. I have an intimate knowledge about the geography of the Four Mile District. There are also less tangible benefits: I've learned that firefighting is a more complex activity than I had thought. I've learned that there is a large amount of knowledge out there that can make you a better firefighter. I've especially learned to have a deep respect for the volunteer firefighters who have been doing this for many years.

**As you said, many of the firefighters have been around for many years and are extremely competent. You represent a relatively young group of firefighter now coming into the Department. Can you talk about that a little?**

There's a definite increase in people my age working in the Department. Fortunately, the department is almost evenly split between "old-timers" and "the new crowd." I think we need that balance between the more experienced and the less experienced volunteers. New people add enthusiasm to the Department and the more experienced teach us how to be good firefighters. And we work closely together no matter how long we've been in the department. When older volunteers retire, we have trained younger ones to replace them.

**Have you had experience outside our District?**

I've worked with the county wildfire crew and the Northern Colorado crew.

**The department got a new Chief last year. Can you describe his leadership style?**

We've all worked with Bret in the past; he's been in the trenches with us. He is in tune with our responsibilities. He is very aware of each firefighter. He makes sure every training and every call is a learning opportunity for firefighters. I have a lot of respect for Bret.

**What do you do when you're not doing Fire Department work?**

Work and more work. But I do like fly fishing, telemark skiing and mountain climbing.

**Being a resident here in the community and being part of the fire department go hand-in-hand for me. Besides, I enjoy helping people.**

**—Clark Woodward, Four Mile Fire Dept Volunteer**

We publish two Newsletters a year.

We welcome photographs or stories relevant to the Fire Department. Call Annette Dula, editor, 303-440-7056 or email: dula@spot.colorado.edu

Thanks to these Newsletter contributors: Bret Gibson, Margaret Hansen, Mark Gross (layout), & Don Witte (production).

Special thanks to Dee Bailey for providing the historic photographs of Four Mile Canyon.



Notice how few trees adorn the hills in this undated photograph of the town of Salina, courtesy Carnegie Library and Dee Bailey —please see story, p.4

## District Service Record

### Calls in 2001

Medical calls:	45
Fire calls:	18

## Training Schedule

Training sessions are held at 7:00 p.m. at Station Two, in Salina.

- **Emergency Medical Services** training sessions are held the second Thursday of each month.
- **Fire Fighting** training sessions are held the third Thursday of each month.
- **To volunteer** for any of the crews, or to find out more about how to join the fire department, please call one of the coordinators below:

Fire Chief Bret Gibson  
303-444-0882

Lou Ann Shirley (Auxiliary)  
303-442-4271

Dave Hustvedt (Medical)  
303-442-2814

### FOUR MILE FIRE PROTECTION DISTRICT

87 Four Mile Canyon Drive  
Boulder, Colorado 80302

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Return to Sender.

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Please call Margaret Hansen (443-7659) if the name on the mailing label was not yours, if your address has changed, or if the newsletter was mailed to "Occupant".