

**Fire Mitigation Meeting**  
**11 May 2022**  
**Q&A with Chief Brian Oliver, BFRD Wildland Division**  
**Minutes**

**Attendees:**

Chief Brian Oliver — BFRD Wildland Division

Bob and Janet Evans

Don Middleton

Merilee and Jere Eggleston

Marty Hoerling

Ted and Melanie Russ

Katherine Yaffe

Ed and Kathy Sacks

John Bevilacqua

Susan Richstone

Marcy Cameron

Paul Culnan

Mike and Susie Koprowski

Susan Adams

Ashish Jain

Glenn Sanders

Annie and Robert Clarke

Larry Pedigo and Alex Behringer

Caroline Bushnell

Kelly Notaras

Chris Hamlin

Kat Carr

**Later arrivals:**

Sanford Baran — approx. midway through

Nancy Sanders — near end

Bob Evans called the meeting to order at 4:35 p.m.

He welcomed everyone and stated the purpose of the meeting as a review of what we have done, what we are doing, and an inquiry into what else we should be doing to mitigate wildfire risk in Shanahan Ridge Four.

He noted that the board has been working with Chief Oliver and others at Boulder Fire-Rescue for the past four years to develop our fire mitigation plan, which is on the SR4 website. He said we'd be reevaluating the plan based on our local experience with fire in the past six months and that the board wants input from everyone to help do that. He urged people to look around at the common areas to see the mitigation work that has been done to date.

He then thanked Chief Oliver on behalf of everyone in SR4 for the recent work BFRD and other agencies have done to protect our homes.

Merilee Eggleston gave a brief recap of what the existing fire mitigation plan consists of, work that's already complete, work that's yet to be done, and what's being done on an annual basis. She reported that the HOA has removed junipers and pinyons in the grassy open spaces, limbed up Ponderosas, lowered tall grasses in the vicinity of ladder fuels, and cleaned out pine needles. She added that we may do more depending on what we learn at this meeting.

Merilee started the Q&A off by asking if the flame length = 4 x fuel height rubric we were given four years ago, and which we've used to determine separation between field grasses and ladder fuels, is still appropriate in light of the Marshall and NCAR fires, in which grasses were heavily involved. She also asked how far embers from a grass fire can travel, and whether we fully understand the reach of flaming grass.

Glenn Sanders observed that because of last year's wet spring, we have an unusual amount of fuel in our fields, with potential for very large flame lengths.

Ed Sacks asked if the four times fuel height was an average or based on the most extreme conditions. Chief Oliver said it was an average, used as a baseline to determine limbing heights, etc. Merilee noted that the HOA has used that rubric but added some extra room to it.

In answer to Merilee's question, Chief Oliver said the best practices we've been talking about for four years are still the best practices. He said Marshall did open their eyes to a few things, but those conditions were so extreme there was virtually nothing they could do as a fire department to keep up with it. There was extreme drought and extreme wind. The grass carried the fire to the structures, but it wasn't the grass fire that ignited the structures. He said grass by itself is a very light, flashy fuel, and it cools very quickly. He said that as soon as it burns out, you can reach down and pick up the ashes. What the grass does is bring fire to other available, larger resources like junipers. He likened it to building a campfire with a handful of grass and a log — it won't work unless there are intermediate-sized twigs, etc., involved.

He said the Marshall fire stopped being a grass fire within about an hour and a half. It then became home-to-home ignition, throwing huge embers lofted by 100 mph winds.

Don Middleton asked, of the thousand homes that burned down, how many were directly ignited by grass? Chief Oliver responded that none were. He said it was all ladder fuels, such as grass burning into mulch, piles of debris, trash, etc.

Marty Hoerling asked about the grass as a carrier, or catalyst, of the fire. He posited that if instead of grass, those areas had been paved in concrete, the Marshall fire wouldn't have happened. Chief Oliver said that was a true statement. Marty asked if Chief Oliver agreed that what initiated the cataclysm of cascading events was the grasses. Chief Oliver agreed that the grasses started the process rolling. He also observed that if on that day a power line had arced into a dumpster with debris, flaming debris from

the dumpster would have been lofted into an adjacent home and started the same sort of cascade.

Jere Eggleston observed that the Elements Hotel in Superior, surrounded by asphalt, burned to the ground. Marty observed that at that point, ladder fuels had already become involved by the grasses, so even for the Elements Hotel, the grasses were the starting point. Chief Oliver agreed that the grass was the primary carrier. But he said it doesn't create spot fires the way larger burning embers do. He said grass has very little heat residence time. He said grass will throw embers, but they are out and cold within feet. It's the other, heavier fuels that can hold heat longer and get lofted by the wind that ignite other things.

Ed Sacks asked if Chief Oliver recommends doing anything to the grasses. Chief Oliver said he recommends nothing more than what we've already said. He said mowing can reduce fuel height, which will reduce flame length, but unless you remove that mowed grass, you're just redistributing fuels without removing them from the area, although the lowered height and flame lengths make it easier for the fire department to attack the fire. But he said mowing creates other ecological problems, such as grass that grows back faster.

Marty Hoerling pointed out that we have tall seasonal grasses that get two or three feet tall and then dry out by July or August. Jere Eggleston observed that that's when he and Bob Evans have been string trimming them around ladder fuels, because at that point they're done growing for the season and don't require multiple treatments. He did observe that while the grasses may stop growing, some weeds do not, so another pass later in the season is in order.

Merilee Eggleston asked for clarification on whether to remove cut grasses or not because of the large practical difference between simply string trimming and string trimming plus removal around a mile-long perimeter of fence line. Chief Oliver said leaving cut grasses is not as big a risk as leaving branches on the ground would be in thinning a forest.

Marty Hoerling acknowledged the large amount of grasses on our property and asked what other options exist for creating defensible space in the grasses — e.g., a fuel break band of some sort — and where such a thing should be placed.

Merilee asked how much good such a fuel break would do in a high wind. Chief Oliver said that on the day of the Marshall fire, with the fire brands being lofted that day, the fire break would have needed to be a half mile wide.

Ed Sacks asked about the value of grass mitigation in other, less extreme scenarios. Chief Oliver said that plans based on the most extreme scenarios are probably unworkable, that if we did that, we'd build houses out of concrete with no windows. Ed acknowledged that there is probably no way to protect against a Marshall-type fire, but his essential question went unanswered.

Glenn Sanders observed that while we may not want it to be the case, what we really all need to do is remove fuel from proximity to our homes, both to protect our own homes and those of our neighbors. He said it becomes incumbent upon the community members to mitigate close to their homes.

Jere Eggleston asked Chief Oliver to prioritize what we should be doing in our common areas and around our own homes to mitigate against wildfire.

Chief Oliver responded that the place to start is inside your house. He said have a Go bag, have a plan, have a communication plan for your family, make sure you know how to get your pets out, where you're going to go, whom you will contact, etc. Have those things in order first, because in a Marshall or worst-case scenario, all the fire department can do is get you out of harm's way.

Marty Hoerling commented that it was extremely fortunate that on the day of the NCAR fire, the winds weren't out of the west; otherwise, we might

have had a Marshall experience in our own neighborhood. Chief Oliver said that on that day the winds were out of the west everywhere but right here.

However, Marty went on to say, when we evacuated our neighborhood, the traffic on the only available exit route was so jammed that if we'd had west winds and the Marshall scenario, there would have been people trapped in their cars. He asked Chief Oliver if there was any way that situation could be improved.

Chief Oliver replied that work on that problem started after Marshall. Before he could discuss evacuation further, Glenn Sanders suggested a return to the subject of mitigation priorities first.

On that topic, Bob Evans offered information on some of what he's done on his own property, including clearing close-in plant materials from around his home and adding rock. Once again, attendees requested that Chief Oliver first finish his discussion of mitigation priorities.

Chief Oliver continued. He said the first priority outside the home is Zone 1, removing flammable, combustible material from around the first three feet from the home. This is a very high priority.

Next, he said that maintaining the home is very important. Some of the best fire mitigation you can do is the spring cleanup chores — mow your lawn, clean your gutters, remove leaf debris from the places where it collects, getting loose, light, flashy fuel away from the home. Where those items collect in eddies is where embers are also likely to be directed.

From there, he said you start working out to trees and shrubs, determining whether they're close enough to your house to ignite it if they themselves were to ignite. He said to look for heat traps around the house, places where heat and smoke can be trapped, like eaves, which could set a roof on fire if exposed to heat from burning vegetation.

He said that even if a large item like a tree isn't close enough to your house to directly ignite it, it could throw large embers downwind that could land in a neighbor's leaf-filled gutters and set that house on fire.

He said that from there you continue to work out with mitigation. However, he observed that fire professionals use National Firewise principles, which deal in mitigation work at distances greater than individual homeowners can do in a neighborhood like ours. Thirty feet out for us is on our neighbor's property. So if we're going to be observant of the risks and distances set out in these principles, and create the appropriate mitigated spaces, the effort needs to be community wide.

Merilee Eggleston asked how much impact the grasses would have in the neighborhood if all the homes in it were fully mitigated. Chief Oliver replied that if everyone did all the things recommended by fire professionals, the grass would have very little impact. Fire in the grass would be a grass fire only, and would burn to the mitigation area and stop.

Glenn Sanders observed that that sort of mitigation would change a fire scenario in our neighborhood from something that is unthinkable to something we could cope with.

Merilee Eggleston asked if it would help if we created a break of mineral soil between grass that has been reduced to eight inches and adjacent ladder fuels, given that 8-inch grass can still burn. Chief Oliver said yes, it would, in a situation with little or no wind. With wind, probably not. He said the best bet is still to get rid of the ladder fuel.

Glenn Sanders amplified that by asking if it wouldn't be more reasonable to simply remove ladder fuels from proximity to grasses rather than doing additional work around the grasses.

Chief Oliver said that any time you can remove a juniper or a cedar or any member of that family is a win from a fire mitigation standpoint. He said they are very easily ignited, are giant ember generators, and their resin and

sap is highly volatile. They burn very hot and are hard to deal with from a firefighting standpoint.

Ed Sacks asked if that included Blue Spruces. Chief Oliver replied that a spruce isn't a juniper, and if it's limbed and maintained, it isn't nearly the problem a juniper is.

Susie Koprowski asked about the piles of needles that fall under the Ponderosas. Chief Oliver said that's fuel that should be removed from under the tree, and that the same fuel height and flame length rule of thumb applies to those. He said that surface area to volume should be considered. Duff that's six inches deep will produce flame lengths of two feet, on average.

Marty Hoerling asked for Chief Oliver's advice about the wood framing under nearly all our decks, even if the top surfaces are a composite material. These decks extend out toward the grasses, he said. Chief Oliver said that the campfire principle applies to these as well — an ember landing on a deck will have a hard time igniting it. But if there's a continuous bed of fuel running under the deck, it can form a heat trap that will ignite the deck. So we should be careful to keep potential fuels out from under decks.

Merilee Eggleston asked about deciduous materials. She asked if we should also be thinking of those as potential ladders. Chief Oliver said in the worst case scenario, yes. And the reason so many deciduous shrubs burned in the NCAR fire was that they were dormant and dry. He said that once the leaves fall off deciduous materials, the leaves are fuel. And while they are dormant and dry, in a Marshall scenario, deciduous trees can become gigantic ember generators.

Susan Richstone asked about risk from our dry split rail fences. She said she felt they were like kindling, an accident waiting to happen. Chief Oliver said those fences are fuel, and will burn and create a few embers. But if they're not connected to the house, if they're out in the open space, they

are not a very big concern. Susan observed that many Silver Plume residents have them between their homes, which are only a few feet apart, in some cases with trees and mulch around them. Chief Oliver said if residents keep the fuels around them cleaned out and they are kept from touching the houses, for instance by a steel gate or metal flashing, or something else that keeps the fence from contacting the side of the house, it will create the needed buffer to keep the fences from igniting homes. He also observed that there is no magic bullet.

Kathy Sacks asked if metal flashing alone would be enough to protect a house from a burning fence. Chief Oliver said flashing would create a delay and a break of the direct fuse that would give firefighters time to get in and fight the fire. If the fence is allowed to burn for a long period of time, there could be enough heat generated at the point of the flashing to ignite the house. If there are not enough fire resources, as in a Marshall situation, homeowners will have to take action on their own. He did not specify what actions at this point; presumably prior mitigation and significant fuse-breaking.

Caroline Bushnell asked how much of a moot point the fence discussion was if a house had fire-resistant siding like fiber cement board or stucco. Chief Oliver said that would be a hugely beneficial factor and could keep an ember from igniting the home, depending on the fuels adjacent to the house and what portions of the house are still combustible materials, like soffits, garage doors, trim, etc. He said a wood fence touching a fire-resistant siding is less of a concern, but still a concern if enough radiant heat is generated to ignite whatever is behind the siding.

Marty Hoerling asked if some of the homes that burned in Louisville had HardiBoard siding. Chief Oliver said yes, absolutely. He said the wind was blowing so hard during that event that in some homes it created enough of a vacuum to buckle the garage door from the inside out, rip it off, and let embers into the home. There were also enough large debris being blown around to break windows.

Marty observed that the risks we mitigate for are the tail risks, the ones that kill us. He said that despite what others at the meeting might be saying, we don't plan for the mean, we plan for the tails. He asked if climate change was increasing, or fattening, the tails for us in terms of neighborhood fire risk compared to 20 years ago. Chief Oliver responded that he believes so. He said you can look at the number of fires and acres burned, and the extension of peak fire season around the world, such as huge fires in Siberia. He said we don't have fire season any more, that fire risk is a year-round situation.

Glenn Sanders commented that over 20 years, our fire risk has increased simply as a function of the growth in size of the fuels in our neighborhood, creating much more risk and moving us further into the tails for that reason alone.

Relative to split rail fences, Merilee Eggleston mentioned that she was surprised to see how little affected the rail fences were in the NCAR burn area. Chief Oliver said that the grasses there didn't generate enough heat energy to ignite them, and that they are new, solid, pressure treated wood that is more resistant to fire. He said they are less ignitable than our drier, less massive split rail fencing. He said that our split fencing is a somewhat lighter fuel to start with, has crevices and fissures open to fire, and is more dry.

Glenn Sanders asked about spray-on fire retardants and whether they would be effective in reducing risk from fences adjacent to houses.

Chief Oliver said they've experimented with some fire retardant paint products and they are pretty effective, although they're very expensive. There is a product called Fortify, made by Phos-Chek, that is a fuels treatment, similar to what firefighters drop out of airplanes, but it's clear, not red. It's meant to be used every six months to make fuels less combustible, although it needs to be reapplied after big rains. Merilee Eggleston asked how toxic it was. Chief Oliver said the manufacturer says it's safe, but the kind they drop out of airplanes is not good for the environment and will

pollute water and kill fish, etc. The firefighters don't drop it within 300 feet of a live water source. He said it is essentially a robust fertilizer dyed red.

Don Middleton asked which of the many things people have around their houses — e.g., firewood, junipers, fences attached to the house — scared him more than others. Chief Oliver said everything works in concert, and the weakest link can cause a catastrophic failure. If you put flashing on the fence but don't do anything with the woodpile, you still have a problem. Don also asked about fences and other collected items between homes that prevent firefighter access. Chief Oliver agreed this could be a problem.

Jere Eggleston suggested that might be a good jumping off point for how the fire department triages a neighborhood when they come in. Chief Oliver said most places in Boulder are pretty defensible and have good access for the firefighters. He said the triage they do in a fire event is basically the same things they've done in some neighborhoods already, with their risk-related color coding system. Our neighborhood has been assessed, and there are four homes that are red on Silver Plume, meaning the fire department can see highly fire-risky items on their properties from the street.

Chief Oliver said people could sign up for a detailed home assessment that will give them specific information about how to make their property safer. They can offer information only; they have no power to tell homeowners to cut down trees or remediate anything. He emphasized that homeowners are meant to take the information from the assessment and factor in their own comfort level and what they value around their homes. He did mention that they have a backlog of about 420 homes at this point, but that they're working on expanding staff to be able to assess more homes more quickly. He guessed it might take 3 to 4 months to get caught up.

He also said the City of Boulder is starting to look at creating mitigation codes and forced (by ordinance) fuel reduction. He said this is years away, but it is in the works.

Merilee Eggleston asked about BFRD's plans to make disposal services available to neighborhoods that want to do mitigation. Chief Oliver noted that Western Disposal offers a 40% discount on a special pickup for fire mitigation. Merilee observed that Western will also pick up organic debris for free on compost pickup day if it's appropriately bundled.

She also noted that the State of Colorado offers a tax break (subtraction) for fire mitigation costs up to \$2500 per year.

Marty Hoerling commented that what sparked this meeting was how frightened people in our neighborhood were by the NCAR fire. He said residents began to look at our surroundings differently, as threats rather than simply beauty. He pointed specifically to the grasses. He asked if we buy ourselves appreciable mitigation of hazard by dealing with those grasses either by cutting them down once a year or making a barrier 10 feet out from the backs of the homes. He observed that SR6 did a complete cut of their grasses this year. He wondered if we should do the same, although for us cutting all the grasses is almost prohibitive, since it's such a big space. He said we want to be effective, but we don't want to do nothing, although he acknowledged that we have been doing some mitigation of the grasses. He asked what Chief Oliver would advise us to consider doing in addition to what we are doing.

Chief Oliver said that we need to establish what it is we value about the grass and what our risk tolerance is. If the community feels the grasses are sufficiently terrifying that, as a community, we want to lower them all and install an irrigation system, or pave the area, that's our decision to make.

He said that from a purely fire suppression/management standpoint, turning our grasslands into irrigated turf, like a golf course, would be ideal. But he acknowledged that that isn't realistic.

Glenn Sanders asked if trimming all the grasses represented a significant bang for our buck. Chief Oliver said the thing that would make us safest on a community level would be to reduce fuels from the homes out. So he said

lowering grasses is toward the end of the priority list for the fire department. He said that when they come in, they will look at what is immediately adjacent to a home and decide if they can defend it. They may not have the resources to stop an approaching fire, but if a home is well mitigated close in, they will be able to defend it as a grass fire passes by, steering the fire around the home. So bang for the buck is work from the house out.

Merilee Eggleston tried to clarify just what extra benefit additional grass trimming would provide, given that in any event the HOA will continue its policy of selective grass mitigation around ladder fuels adjacent to the fields.

She wanted to know if there would be additional benefit from a continuous trimmed swath. She noted that SR6 trimmed all their grasses not because they were told they'd be safer because of it, but because their homeowners felt more comfortable with that approach and were willing to pay for it. She noted that the peace of mind needs might be the same in SR4, but she was trying to understand the issue from a fire physics standpoint. She said that there was essentially no point in lowering grasses next to a home like Bob and Janet Evans', which is ringed in rock for several feet out from the home. Chief Oliver agreed. She asked if we should be looking at a uniform mitigation, or should we simply continue to do what we have been doing, perhaps with an additional margin.

She asked Marty Hoerling if she had framed the question appropriately to get the information he was looking for. Marty responded that as he understood it, the community would need to decide what its values were and understand what kind of risk we were and were not accepting.

Chief Oliver offered that every little bit of mitigation helps. If you create a mowed section all the way around the perimeter, that means better access for the fire department, lower flame lengths, and an easier firefight.

Marty asked, if we had a fire come into the neighborhood and we didn't touch the grasses as a preventative, residents might come back and say "I

told you I was nervous, I told you why I was nervous, and look what happened.” He said even if there is no causal link, the appearance of lack of mitigation might result in recrimination.

Glenn Sanders remarked that the question he was hearing was, “Is cutting the grass just a panacea, and is the real mitigation to be done next to the houses?” He said from what he’d been hearing, real mitigation is to be done next to the houses, and it needs to be done uniformly through the neighborhood, that each and every home that catches fire represents an incredible elevation of risk for the entire neighborhood.

He said this is something we haven’t wanted to face — the notion of compelling residents to remove landscaping that we all adore.

Merilee noted that there are people in the neighborhood who are very much opposed to cutting any more grass. They value their quality of life relative to these materials more than they fear a fire. Some mention loss of habitat for wildlife, and biodiversity. Glenn acknowledged that there is a significant emotional component to mitigation decisions. Merilee said that component won out to some extent four years ago, which is why our mitigation plan includes a very limited treatment of the field grasses.

Ed Sacks pointed out that we all need to take our own actions based on what we think, value, and fear. But we do have an HOA, and what we’re talking about is whether there is an incremental benefit to the HOA mowing the grasses down to 8 inches. He asked if there was any incremental benefit at all in trimming more of the grasses. And if there is, he suggested we consider doing so.

Christy Randolph suggested adding peace of mind to the equation and that she felt that was significant. Others agreed with that.

Chief Oliver said once again that every incremental thing that’s done is adding benefit. The risk can’t be reduced to zero, but it can be made much more manageable.

Don Middleton asked what would happen if we had paved all our fields, and then had a Marshall-class event, with neighborhoods to the west burning and large flying embers coming our way. He said he assumed we would not be safe, even with the grasses entirely gone. Chief Oliver agreed. He said depending on home construction, those embers could still put the neighborhood at risk. He said you can do all the mitigation in the world, but once you get home-to-home ignition, all bets are off. He observed that our communities are way too densely built for fire safety, and once homes start burning, all the fire department's plans for holding the fire to the open spaces go out the window. They have no method to stop a Marshall-type conflagration.

Don pointed out that there are medium-range scenarios as well, in which there's still an ember storm, but if you've sufficiently hardened your home, it's survivable. He observed that in a less extreme case, the fire department might be able to stop home-to-home transmission, but that in Marshall, there was too much fire and not enough resources.

Don also mentioned that mowing comes with its own risk of sparking a fire, and Chief Oliver agreed that was true at certain times of the year. Boulder OSMP won't mow strips along the open space when grass is dry for that reason. He said that environmental impacts, ecological impacts, and fire-start risk all come with mowing, in addition to the city not having the resources to maintain those strips. He said that for them, the juice isn't worth the squeeze.

Marty Hoerling asked Chief Oliver to come back to evacuation and how we would escape fire going down Greenbriar. Chief Oliver said that they'd realized after the Marshall fire that evacuation was a bit of a problem. They realized that some of the warning systems were old and archaic and they weren't designed for an evacuation such as Marshall required. In the old days, firefighters would put a map on the hood of a truck and look at the areas they felt needed to be evacuated, then draw a map they would describe to Dispatch. This was all predicated on the reverse 911 system, when homes all had landlines.

Now, they don't. So fire and emergency services have moved to other systems such as Everbridge, which requires people to opt in for notifications. Not everyone has. During the NCAR fire, they put out a wireless emergency alert, or WEA, which was set up after the Marshall fire, because warnings there were too spotty. WEA alerts work like an Amber Alert; if you have a cell phone that's within a certain tower's reception area, you'll get the alert. The area neighborhoods are divided into polygons, with an assigned number. Our neighborhood is 1A. They can send alerts to specific polygons.

But in the NCAR fire, they needed to alert hikers on trails, so they cast a wider net with the WEA alert, and the bleedover from that got to Martin Acres and elsewhere it didn't need to go, such as Broomfield. One person got it in Bozeman, MT.

Glenn Sanders tried to summarize: the NCAR fire alert was anomalous, more people were evacuating than needed to be, and it won't happen again. Chief Oliver said he hoped so.

He said the other thing that made evacuation difficult was that many people got the alert who weren't at home at the time and they decided to drive into the evacuation zone to get their belongings.

He also said they are now looking at and beginning to implement a new system that is more targeted and will give people a better understanding of whether an evacuation notice affects them and what their evacuation routes are. It also does real-time fire modeling and traffic engineering, so they know exactly where to send police officers to control traffic and which roads need to have contra flow applied to expedite evacuation.

So he said the systematic gridding of smaller polygons and the real-time fire and traffic monitoring will help them keep evacuations more orderly and efficient. He observed that most of the people who perished in the Camp Fire in Paradise, CA, died stuck in their cars in traffic. He said that from an emergency manager's standpoint, this is one of his biggest fears. He said it

didn't happen at the Marshall fire simply because there were so many routes available for people to use.

Chief Oliver also reemphasized that you don't need to wait for an evacuation notice. He said if you see smoke and feel yourself to be in danger, just go.

Merilee Eggleston asked if the trees that got singed in the NCAR fire would die and need to be removed. Chief Oliver said that if less than 50 percent of the needles were singed, the tree has a chance of coming back if it gets enough water and nutrients. Otherwise, it would probably die and need to be removed.

Marty Hoerling asked if the trees were singed by something other than the grasses. Chief Oliver said that what singed them was the build-up of pine needles underneath the trees.

Merilee asked Chief Oliver to address how and if OSMP mitigation efforts in the NCAR area had affected the ability to successfully fight the fire. Chief Oliver said it was huge. He said it opened up the crown spacing, woody material was removed in the grass, and existing trails in the area created fuel breaks, as did the skid roads created by the mitigation operations, all of which slowed the fire progression down. He said the mitigated areas changed the way the fire was behaving to the point that it was relatively easy to contain.

Glenn Sanders suggested that spacing of elevated ladder fuels in our neighborhood was important. Chief Oliver said any time you can break either horizontal or vertical continuity of fuels, you're reducing fire pathways.

On that note, Merilee reminded everyone that in the next week or two, all the large junipers in the parking islands would be coming out. There was a scattering of applause, but Susie Koprowski observed that there would be no more privacy in the neighborhood. Chief Oliver said there were other

things to plant, and Merilee assured Susie we would find some suitable plant materials to create privacy.

Marty Hoerling brought the discussion back to grasses by sharing a model he uses in his mind that consists of a moat and a castle. He said in the castle are all the valuables, and the moat is there to keep the hoards out. He said that to him, you want to keep the fire from coming into the neighborhood, although once fire is in the neighborhood, other sorts of mitigations become important to keep the fire from doing damage.

But, he said, in terms of keeping the fire out of the neighborhood in the first place, the moat struck him as a very important analogy. He said that's what the grasses mean to him in part, although not entirely. He asked Chief Oliver to tell him what's right and what's wrong with that simple view.

Chief Oliver responded that it was a cool analogy, and it works up to a point, but the hoards have catapults with boiling oil and burning arrows coming over the walls — that's the ember storm. He said the moat would stop the flaming front, it would create a break, but then you have to worry about what embers are landing inside the castle keep.

Ed Sacks commented that there's a difference, because the embers are coming from a place that's outside the HOA's responsibility and the grasses are the HOA's responsibility. He said there are two different legal paths there. Chief Oliver observed that the HOA is responsible for the moat.

Merilee Eggleston asked the gathering what they were thinking, and what the membership is asking the HOA to do in the places over which they have jurisdiction. Ed Sacks asked for a uniform break of some limited space to help the fire department and give residents better peace of mind. Paul Culnan thought we should mitigate not a uniform amount around the perimeter, but base the mitigation on a 30-foot distance from the home. Marty Hoerling brought up the subject of putting stones underneath the split-rail fence line. He also said he favors a uniform 10-foot break around the whole perimeter.

Don Middleton asked if the idea of stones under the split rail was similar to the idea of creating a mineral soil break between the lowered grasses and nearby ladder fuels. Chief Oliver said it was along the same lines, but maintaining it and keeping the grass out of it would be important.

Merilee reported on Helen Petach's behalf that she and her husband do not support trimming any more grass, but they do support increased mitigation around individual homes as being more effective.

Glenn Sanders noted that Merilee had said earlier that at some level, the HOA's responsibility is safety for the neighborhood. He said he agrees with that entirely. He said that in his view, a ruling about fire safety level in the neighborhood would be one of the most valuable things the HOA could do for the neighborhood. He said he would like people to consider that, with the rationale that if one person's home catches fire, it endangers the rest. He favors a mandate that would give the HOA the power to do things like prohibit the planting of junipers next to homes or request that people remove particularly fire-risky items, with help from the HOA, because they are a hazard to the entire neighborhood. He said the intent would be not to tell people what to do, but to recognize that requiring the elimination of hazards is the community-minded thing to do. Glenn acknowledged we would likely not be fully successful.

John Bevilacqua submitted that such a scheme would be unenforceable.

Merilee noted that it would be easier for us if the City of Boulder goes down that path and controls fire-hazardous plant and other materials on a municipal basis. Glenn agreed. Chief Oliver observed that any such ordinances are only as good as their ability to be enforced.

Glenn went on to say that the level of seriousness of homeowner mitigations can't be overstated. He said we've seen the devastation of the Marshall fire, we've seen a hair-raising increase in frequency of local fires, and that it seems as if it's not an inevitability, but it is a likelihood that fire will sweep through our neighborhood. He acknowledged that there is an

emotional component to refusing to do fire mitigation, but that if one neighbor is willing to take the risk of losing their home to fire, he or she also enforces that decision on the neighbors. He said this is a life safety issue.

Jere Eggleston said that the City of Boulder has adopted the International Wildland-Urban Interface Code, which applies to all new construction. He said he thought the city has amended its code to include a few requirements for existing construction as well, such as prohibiting wood piles under decks. Chief Oliver said that was true and that the code applies to remodels of more than a certain percent, perhaps 25 percent. He also said that the fire department is trying to leverage this code to find the appropriate place for requirements around juniper plantings, etc.

Marty Hoerling noted that he has chaired the city's Environmental Advisory Board for the past three years and one of the things they are most concerned with is risk of and resilience to fire that burns through a town, both the air quality issues and the burning of the town itself. Discussions around this have been contentious. Some say, if you can't stand the heat, get out of the kitchen. If you're concerned about the fire risk from the junipers and the trees and the wild grasses in a place like Boulder, then you're in the wrong place. They would say you can't enforce your restrictive ecological footprint on those who have chosen to come here because of that ecological footprint. It gets complicated quickly.

Glenn Sanders observed that you can easily turn that argument around, and Marty wholly agreed. As in, if you can't adhere to our local fire laws, move. Glenn felt that making such things compulsory is unworkable, and that in the absence of compulsion, all we have is education, persuasion, and leading by example.

Don Middleton brought up the subject of insurance rates going up for those in fire-risky areas. Chief Oliver said insurance carriers do their own risk assessments that are different from BFRD's, but that they are beginning to offer discounts to those in the Wildland-Urban Interface who have done good fire mitigation on their properties. The insurance companies that

cover properties in Boulder County have an agreement with Wildfire Partners, a county program. Wildfire Partners uses criteria similar to those used by BFRD and most fire protection entities like NFPA.

Glenn Sanders pointed out that most people are grossly underinsured for the loss of their home, so he suggested everyone look hard at their policies.

Merilee Eggleston reported that she found out insurance companies don't look into prior mitigation when they get a claim for a loss. Jere Eggleston noted that they will get involved when you're rebuilding, they will look at what you're doing, because they're paying for it.

Don Middleton observed that if your house burns down because your wiring was not installed to code, the insurance company won't pay. Glenn said he just wanted to let people know how important it is to verify that your homeowner's insurance is adequate.

With no more questions for Chief Oliver, the meeting was adjourned at 6:17 p.m.

Respectfully submitted,

Merilee Eggleston  
Secretary, Shanahan Ridge Four Homeowners Association