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OPERATOR: Welcome to today's National Wildlife Federation conference call hosted by Dr. Amanda Staudt entitled "Increased Risk of Catastrophic Wildfires." During the presentation all lines will be in a listen only mode, a question and answer session will follow the presentation and instructions for asking questions will be given at that time. Thank you for your attention, I would now like to turn the conference over to your host, Dr. Amanda Staudt.

AMANDA: Hi, good morning, or good afternoon everyone - depending on where you are. I am Dr. Amanda Staudt, I'm the Climate Scientist with the National Wildlife Federation. Welcome to this press conference on Increased Risk of Catastrophic Wildfires: Global Warming's Wake Up Call for the Western United States. I will be serving as your host and moderator. The purpose of this teleconference is to provide you with the latest science about those factors that are contributing to heightened wildfire risk in the western United States. Mainly global warming combined with past fire suppression.

I think it's fair to say that the massive wildfires raging in California this summer are symptomatic of a trend toward more and bigger fires in the Western U.S. Our thoughts and prayers are with those families in California who have been dealing with these fires, especially those who suffered the tragic loss of firefighters in the Shasta Trinity National Forest helicopter crash.

Today the National Wildlife Federation is releasing a mini-report, providing more information about global warming and other factors that make increasing wildfire activity likely in the future. The report, which is the 2nd in a series that we're producing to connect the dots between global warming and extreme weather events, is now available on our website. That is www.nwf.org/news. Again that's www.nwf.org/news.

All right, so the way we're going to proceed today is to first start with 4 short presentations which will be followed by ample time to address any questions that you may have. I will just go first speaking on behalf of the National Wildlife Federation, which is the nation's largest conservation organization. Our mission is to inspire Americans to protect wildlife for our children's future. I will be summarizing the available climate research on trends in wildfire activity during my remarks.

I am very pleased to also have 4 others with me on the call today. The 2nd presentation will be given by Dr. Steve Running from the University of Montana. Dr. Running will share his expert perspective on forest ecology and it's relation to wildfires.

The 3rd speaker will be Tom France, the Regional Executive Director of the National Wildlife Federation's Northern Rockies Natural Resource Center in Mazula Montana. Mr. France will talk about forest and firefighting management and policy.

And the 4th presentation will be given jointly by Don Feser, the Disaster Preparedness Coordinator from the San Bernardino City Fire Department, and also a former U.S. Forest Service Type I Incident Commander, along with George Avery who is the Battalion Chief for the San Bernardino California City Fire Department. Mr. Feser and Mr. Avery will talk about their extensive on the ground experience fighting fires in southern California's wild land/urban interface.

A brief note, the smoke jumper Wayne Williams is not able to be on this call today due to an unexpected family matter. All right, so those are the introductions and I'm just going to jump right into my opening remarks and we'll go from there.

So let's get going then. The Western United States have seen a 4 fold increase in the number of major wildfires each year, and a 6 fold increase in the area of forest burn since the mid-1980's. Global warming contributes to increased wildfire activities in at least 4 ways: 1st higher temperatures have led to fire seasons that last about 78 days longer. 2nd dryer conditions, especially in the southwest, increase the flammability of vegetation. 3rd more lightning strikes associated with stronger storms can ignite more fires. And finally, warmer and drier conditions are conducive to widespread insect infestations that can leave broad ranges of dead and highly combustible trees. When these global warming impacts are combined with decades of fire suppression that allowed unsafe

fuel loads to accumulate as well as the ever expanding human settlements in and near forests, the result is increasing vulnerability to major fires.

One study projects that the overall area burned across 11 western states will double by late this century if average summertime temperatures increase about 3 degrees Fahrenheit. Montana, Wyoming, New Mexico, and Utah could be hit particularly hard. Let's be clear, fire is a natural and beneficial part of many forest ecosystems and we need to allow some fires to burn and thus return our forests to more natural conditions with trees of different ages, lower fuel loads and more space between the trees. But the number and intensity of fires today is challenging fire managers and forest communities throughout the west. For example, 2007 was the 2nd busiest fire season since 1960, with more than 9 million acres burned. The federal government spent $3 billion that year in fire prevention and suppression. These activities now account for 45% of the US Forest Service annual budget.

In addition to the risks to people and property, large fires can have lasting impacts on forest ecosystems and the wildlife species they support, as Dr. Running will discuss further in his remarks. These fires can also release tremendous amounts of carbon dioxide into the atmosphere basically enhancing global warming until the forest can grow back. In recent years, fires in the western United States have released carbon dioxide into the atmosphere equivalent to about 11% of the regions annual fossil fuel emissions. Today's new era of more frequent and intense fires demands a new approach to managing our forests and fire risk. We must address the root of the problem and reduce the global warming pollution that fuels more severe fires. At the same time, it is critical to restore our forests to more natural conditions and fire cycles, to step up protections for people and property, and to jump start new forest growth after catastrophic fires.

At this point I'm going to turn it over to Dr. Steve Running from the University of Montana. Steve?

STEVE: Yes, good morning. As I sit here in Mazula Montana often times the center of our western fire season, I'm pleased to say that for once we're having a wonderful summer here. So many people that I talk to around Mazula say these are the summers that we remember from the 1970's and 1980's. We've had almost no fires, the sky is blue every day and one of the primary reasons we're having such a good summer is we had a very

deep and long snowpack. We got late spring snowfall that has kept the high mountains wetted down. And this to me, this good summer reminds me of what's been happening in most of the summers of the last decade where our snowpack is often gone by the 1st of April all the way up to 7000 or 8000 feet we'll have no snow left, and those fires or those forests start their summer dry down way early in the spring. Snow is obviously the best fire retardant ever invented, and so as long as we have snow on the ground we're in good shape. But once it's gone our summertime rainfall throughout the western U.S. does very little to rehydrate our ecosystems. The rainfall evaporates within an hour or two of falling and so summer rainfall doesn't help our ecosystems, its wintertime snowpack. And so the trend we are now seeing and this good summer makes such a contrast from our previous ones, is that as we lose the spring snowpack we're going into years with more and earlier wildfires and that as Amanda said, last longer and grow larger. It's kind of ironic to note that Billings Montana had a wildfire burning on January 8th this year, the dead of winter, and there was a wildfire burning.

The last comment I'll make on our western fires and ecosystems is that I expect some of these fires to not re-grow as forests. The western landscape is irritifying due to warmer temperatures and lower snowpack, and some of these forests that are burned off will probably return as grasslands or shrub lands because the site is no longer moist enough to carry a forest. So I see these fires as the part of an ecological transition that is going to continue through the west as these disturbances reset the ecosystem succession and they come back as a different ecosystem that had burned off in the wildfires.

With that I think I'll turn it back to Amanda.

AMANDA: Thanks Steve. At this point we're going to turn it over to Tom France who is the National Wildlife Federation's Northern Rockies Natural Resource Center in Mazula Montana. Tom?

TOM: Good morning and I'd just echo Steve's comments about a wonderful summer in western Montana. Everyone I talk to looks vaguely haunted when they think back on last summer when we saw days and days of 100 degree temperatures and smoke in the sky for the better part of 6 weeks, and fires literally all around the town. And that made everybody remember 2004 and 2002 and 2000 and 1988 when we had other big fire years and makes a summer like this all the more precious really.

As global warming has occurred in the west and we've seen more and bigger fires, it's really apparent to all of us that in some cases and under the right conditions the ability to fight fire effectively have really diminished, in some cases it's just impossible. In some cases the only way fires go out is a season ending event in September, those season ending events seem to come later and later in the month. And with that reality it is also apparent that one of the things we need to be doing is keeping the human footprint out of harms way and trying to develop strategies that would lead people not to build in the wild land/urban interface, to lead people to build houses and businesses in locations that are close to firefighting services and ways out of the woods. Unfortunately, many of our policymakers don't seem to have taken that message to heart and I'd site to the ongoing negotiations between Deputy's Undersecretary Mark Ray in the Park Department of Agriculture and Plum Creek Timber where the secretary's office is trying to facilitate access for Plum Creek to cross national forest lands and access Plum Creek lands in western Montana and Idaho and Washington. And Plum Creek's corporate purpose at this point is no longer as a timber producer but rather as a real estate trust, and Plum Creek's business plan calls for maximizing revenues by selling off recreational properties where the value of those properties exceeds whatever might be expected from a timber operation. And this effort to provide Plum Creek with access and let them avail themselves of development opportunities is absolutely at cross purposes with the science of global warming. And in places like Mazula and Mazula County we have county governments stepping up and saying this is wrong headed, we're going to be the ones saddled with the costs of fighting fires, we're going to be the ones that have phone calls from scared endangered property owners that are demanding fire services, and I just think that we need to be looking to new policies that really look to reduce the human footprint in forested landscapes because that's the only way we're really going to effectively protect people from the fires that have occurred in the past and will certainly occur in the future.

And so with that I throw the ball back to Amanda again.

AMANDA: Thanks Tom. Now we're going to head over to California and hear from Don Feser from the San Bernardino City Fire Department. Don?

DON: Yeah, good morning. Just to give you a little background from the standpoint of my work history and experiences. The - I

actually started working with the U.S. Forest Service back in the early 1970's and my career extended through last year so I had about 34 years of experience, not only as a frontline firefighter but the last position I held for about a 6 year period was the Fire Chief for the Angeles National Forest in southern California. My experiences are throughout the western United States not only fighting fires but also dealing with natural disasters, drought, hurricanes, etc. And since about 1985 in addition to working the fire lines I also started gaining experience on the incident management teams, the teams that are put together to deal with large fires and disasters.

AMANDA: Don if I could interrupt you for a minute, you're fading out a little bit and a little bit quiet, you want to try and get a little closer to the?

DON: Yeah. It might just be the connection but I got the handset right to my mouth, I'm not using the speaker. Is this any better?

AMANDA: That's a little better, thank you.

DON: Anyway so some of my experiences dealing with fires and also the history although I don't go back that far, but I wanted to bring up a point from the standpoint - and it's a good thing that the guys from Montana are on the line - but a real watershed advantage from the standpoint of fire suppression occurred after 1910. And that was the large fire blowup in northern Idaho and Montana. And at that time that was considered the worst fire season of all time. And as a result of that there was a real mindset change from the standpoint of how a federal agencies and the public perceived the fire as being either good or bad, and at that time it was obviously bad. So there was a slow build up of suppression capability starting in 1911 that extended and essentially hit a high watermark about the mid-1970's. Another significant watershed event occurred in the year 2000 which at that time became the worst fire season since 1910 and a lot of that also occurred in northern Idaho and Montana. And I spent a lot of my summer in Montana in the year 2000. Since then, since 2003 that mark from the standpoint of being the worst fire season ever has been essentially surpassed by the 2003 fire season and also the 2007 fire season. And what's happening out there is the old concept, the old fire triangle that every firefighter knows from the standpoint of having heat and having fuel to burn and having oxygen to support the process has been essentially replaced not necessarily from a physical level but from an environmental level. And then we

have the 3 W's - and that's WAUI, as in Wild and Urban Interface, Weather in terms of climate change, and Wood finally, the 3rd W dealing with an increase in biomass as a result of climate and/or past land practices.

So there in a nutshell you kind of have a history that brings you up to date from the standpoint of - obviously there were administration changes over the years and different philosophies from the standpoint of how land was going to be managed and how fire was going to be managed on the landscape. I'll also bring you from the standpoint of directly related to California, since 1985 which is kind of when we really started noticing an increase in large fires and the ferocity of the fires and the resistance to the fire control, occurred around - I'll pick a date, 1985. As an example, since 1985 the 15 of the 20 largest fires by acreage burned in the state of California occurred since 1985 to the present day. To reinforce the concept of the wild land/urban interface problem since 1985 16 of the 20 largest fires that destroyed structures and the largest structure lost occurred during that period of time. So the trend is definitely there and there really is not a very cohesive approach from the standpoint of how to deal with that. I'll talk a little bit about that too.

It's not just California that's experiencing these problems, it's throughout the western United States, it's in the western Pacific, and it's in areas of the world that shouldn't normally be having wildfires. But these fires occur as a result of fuels conditions and as a result of warming climates.

In 2001, and this is very similar to what happened in 1911, Congress approved a major increase in suppression preparedness funds in terms of being able to deal with the worst largest fire season in history. As a result of that, still in 2003 and after that fire activity increased, acreage burn increased, so the suppression aspect is not the solution. There has to be a baseline from the standpoint of capability, but the overall strategy from the standpoint of managing fire on the landscape has got to change more drastically than even though it has changed somewhat over the last 10 to 15 years. I'll give you an example of that. In 2000 there was no thought of doing any perimeter control on the fires in the western Montana in the Bitter Valley. The direction at that time was to only do point protection, that is protecting infrastructure, protecting structures and essentially were managing those fires in time and space and we were managing it throughout the summer and basically herding them towards a season ending event as rain or

snow. These same strategies are having to be employed on more and more fires since 2003, and in fact it's getting to the point where once a fire gets established in a certain geographic area based on the fuels conditions and weather, it's essentially going to become a season ending event or you're going to limit your suppression based on limited resources to only doing the necessary items to protect life and property. That's where firefighting and fire management is heading and will continue to head into the future based on these conditions. I just wanted to mention also that this management strategy is going to have, and has had other spinoffs and other impacts from the standpoint of increased cost and not only to the taxpayer but costs from the standpoint of having to live a summer in highly polluted air because fires are being managed, or having to be managed under that strategy. You're talking about the fire effects on the ecology, on the ecosystem, hot intense head fire runs and very hot soil moistures as a result of those fuels burning off. Or on a an opposite note perhaps, a more strategic use of under burning and burning under the right conditions in order to contain the fire or manage the fire that may have a positive impact from the standpoint of wildlife habitat. Economic impacts are huge from the standpoint of not only the suppression but in the infrastructure loss, or the potential thereof with the protection costs associated with it. But also you're dealing with the impacts from the local economy from the standpoint of loss of revenue, a lot of times in these areas there's lots of tourism, people don't want to go there, they don't want to go to Glacier National Park because it's all smoked in all summer long. So there's a tremendous potential for any firefighter or an incident commander such as myself to have to deal with what we call the 4 fronts of any fire. You have the fire front itself, dealing with the fire; you have the financial front of the incident; you have the political front; and you have the media front. Balancing all 4 of those fronts can be extremely complex and difficult but it's essentially what exists now in this new fire environment.

And I'll pass it on.

AMANDA: Thanks Don, that was really interesting and I think we'll move onto George Avery, also from the San Bernardino California City Fire Department. George?

GEORGE: Hi everyone. My name is George Avery, I'm a Battalion Chief here in the city of San Bernardino. We're situated in San Bernardino County at the foothills of the San Bernardino mountain range. And just a little brief history on my history,

I've been a firefighter for 20 years on the ground and I'm also a federal Type II incident management team member. I've been to fires in Montana, a few years ago Nevada, Idaho, all over California. And also operated as a strike team leader for the 5 engines that I'm in charge of that go to different areas. I recently came back from the GAP fire in Goleda California which consumed over 9000 acres. And I've also been, my experiences with the old fire here in the San Bernardino National Forest and also went into the city of San Bernardino itself. This started with the Grand Prix fire, as everyone knows, and then on the heels of the Grand Prix fire while it was going on the Old Fire started. So I was involved in both of those and then last year the Slide and the Grass Valley fire in Lake Arrowhead and the Running Springs area.

So my take on it, of everything that's been going on is just to give you a sense from the firefighter standpoint here in San Bernardino County. We sit on the total slope of the San Bernardino mountain range which is a transverse mountain range in the south-central mountain area. The sustained south aspect exposure, whereas the sun is just beating down on the south aspect of the mountain, and then you culminate that with the… it's… with the Santa Ana wind conditions and then now the higher density of wild land/urban interface areas - this is definitely a major target hazard in the southern California area, much like areas in San Diego County and Santa Barbara, and where Chief Feser was from - the Angeles. So we, in looking at the news today where the governor had declared a federal disaster area for California because of the drought conditions, and you combine that with the 3 mortality issues and the changing environmental and climate conditions - the firefighting forces are having to bolster up beyond its own capability. We are now having to rely on resources out of the region, out of the country from New Zealand and Canada and now from the military. So I think the fire service as a whole had to be reactionary at first because of the number of fires that we were encountering, but now have become proactive in having a number of meetings at the federal, state, local areas that have really tried to develop strategy and tactics to combat these potential major disasters.

These mega fires that we've been realizing here as of late have really prompted a major force at all levels of government and we as firefighters are seeing it. Here recently last year we had a mobilization center here in the city of San Bernardino that we've never had before. And a mobilization center is just an area, basically a staging area for firefighter resources to

standby for rapid deployment anywhere in the southern California area. As it stands we had firefighters from all over the western United States here in our backyard and which proved to be absolutely miraculous and great forethought because when they were there over the Thanksgiving holiday they were deployed into the Angeles National Forest where another major fire broke out. So it's this sort of thought process and forecasting and reaction from all levels of government that has really been helping we as firefighters out and being able to protect our communities.

One other last example is the mountain area taskforce here in San Bernardino County which is comprised of federal, state, local, private, and volunteer agencies. And they institute aggressive evacuation plans, vegetation management with the bug kill issues that we've had, they have instituted fire safe councils, they've changed … they've been instrumental in changing particular fire codes and building codes in this particular area. So they've… if many people can remember a lot of the staple guidelines for defensible space was 30 feet. Well now it's 100 to 300 feet that everyone is advocating. So we as a fire service are having to change and adapt to these environmental changes, the mega fires that we're seeing more frequently than ever, and now it's just a matter of commitment with knowing that this is the climate that we're going to have to live in for an extended amount of time in the future. So with that I pass it back to Amanda.

AMANDA: Thank you George. And to all the speakers. At this point we would like to open it up for discussion and welcome questions from those reporters who are on the line. So operator if you could open it up please?

OPERATOR: Thank you. At this time we'll begin the question and answer session. To ask a question press zero followed by a one on your touchtone phone. Questions will be answered in the order they are received. If you have a question press zero followed by a one now. Please hold for a moment while our system compiles your responses.

Our first question comes from Damien Bulah from San Francisco Chronicle, please go ahead.

DAMIEN: Hi thanks. I was just curious about the talk of forests that are burned off and won't return in the same form. Can you guys talk a little more about where specifically that

may happen, why, and what impact that will have in the future? Good or, I would think, bad.

STEVE: Yeah. I think that was my comment so I'll take the question. These are basic principles of biogeography that our ecosystems in the west are arranged on the landscape based on the water balance and water availability. And we can see that particularly when you change aspects from a south facing slope to a north facing slope just in the same locale, that small change in water balance can often change the ecosystem. And so the point I was making was that on the drier sites which if I have to predict it will probably be the lower elevations, southwest facing slopes, as those slopes burn off as forest some of them may not return as forest. Because it's now drier than it was when those forests were established 50 or 100 years ago. And we're trying to build computer model projections to give a more accurate mapping of this potential so that's research that's underway.

AMANDA: Does that answer your question Damien?

DAMIEN: Yeah, and just the last part of that – what impact would that have in terms of carbon, in terms of fire danger, erosion? What impact would that have in the future?

STEVE: Well in terms of fire danger, you're – we know where the climate signal is going over the next 50 years to a reasonable approximation. You're actually growing less fuel on that landscape and so the fire danger may not necessarily go up because even though it's warmer and drier there's less fuel there. We will see – we already see – significant erosion after wildfires now. That's one of the first thing the land management agencies go after the minute the flames are out is to protect the land from erosion with various techniques. So that's always a major response that they work on. And so I'm afraid we're going to have more erosion problems if we continue to have more acreage burned.

AMANDA: Great. And then the last question was about the carbon emissions to the atmosphere and Steve correct me if I'm wrong, but if we're removing forest and replacing it with ecosystems that are less carbon intensive that'd be a net source of CO2 to the atmosphere.

STEVE: Well both a net source of CO2 as the fire as burned and then we're weakening that carbon sync as we go forward in time because a less robust ecosystem is growing back. And so that

will generate a slow insidious weakening of the forest carbon syncs that we currently benefit from.

AMANDA: All right, can we move onto the next question?

OPERATOR: And our next question comes from Jeff Duman with Reno Gazette Journal, please go ahead.

JEFF: Hello there. I understand that we're talking about impacts across the west here, but I'm hoping somebody could bring it real close to home for us to what exactly we might be looking at in the Sierra Nevada/Lake Tahoe area.

AMANDA: Any of our California folks have any thoughts there?

GEORGE: Don I'm sure you've fought as many fires up there as I have, but from an incident commander standpoint what have you found?

DON: Well there's been a lot of money spent in the Tahoe area, they've gone after a very aggressive fuels management program from the standpoint of thinning and doing some under burning in that area to try to restore some of the pre-settlement type forest conditions. Of course they'll always have the challenges with the build up of the population in that area. I think that you're likely to see more large fires in that Tahoe basin area in the future than even with the fuels treatments. A couple years ago they had a pretty significant fire that started early in the season up in that area. The thing that changes too is that even though that area may not have had historical fires and you have the various aspect changes, you may have some good north slope area that generally retains moisture longer and you get good snow packs in that area, but when you get into a drought situation those areas that are generally that would not burn because of the aspect now becomes part of the available fuel. So that's where you get the mega fire type situation when the areas that generally historically had been safe and you can run a fire that's on a southwest facing slope up to a ridge and contain it because it wouldn't slop over or wouldn't spot over onto the north slope. In a drought situation now those north slopes are burning and it adds significantly to the fire containment issues.

AMANDA: And Don if I could add to that, the snow pack in the Sierra Nevada is also decreasing, we've seen an 11% decrease in snow pack since 1950. And it's melting earlier, peak river flows are happening about 4 weeks earlier in the spring. So as

Dr. Running mentioned previously, earlier melting of the snow pack would lead to the fire season starting earlier each year in that region.

Does that answer your question Jeff?

JEFF: Yeah, and just a housekeeping matter if both Don and George could spell their names?

DON: Yeah it's Don, common spelling, and then Feser - the spelling on that is Frank, Edward, Sam, Edward, Robert. F-E-S-E-R.

GEORGE: And this is George Avery, common spelling for George, last name Avery, A-V-E-R-Y.

JEFF: Thank you.

OPERATOR: And our next question comes from Paul Hansen with KZYX News Radio - please go ahead.

PAUL: As we look at the increasing risk of wildfires, where do people come down on the position of let it burn but of course, protect human life and property?

DON: Well I brought some of that up, I can at least start to address it.

AMANDA: Is this Don talking?

DON: Yeah, this is Don Feser. What it comes down to actually has to be a fairly practical decision from the standpoint of if you only have one fire burning then you have the luxury of throwing more resources at the fire and maybe doing more of a full containment. The problem is that we've seen in recent years is we have multiple fires burning in multiple regions of the country or throughout the west and resources are not going to be available, you're going to have to deal or develop your strategy based on the resources that you're allocated. And that includes not only aircraft but fire engines and firefighters on the ground. So from that standpoint then you have to set priorities. Priorities are then therefore going to be life and property and you may on any particular fire you may be dealing with a direct suppression to control on one flank of the fire and you may be essentially not letting the fire burn but managing the fire within geographic boundaries on a less critical area of the fire.

When you get in the huge, huge fire situations then it becomes a lot more strategic from the standpoint of looking at where are you most likely to be able to contain the fire and not be able to just go after it and try to minimize the acreage burned.

AMANDA: Tom I'm wondering if you might want to add to that a little bit about the beneficial role of fire for ecosystems as well. Or Steve, one of you.

STEVE: I can talk on that one. In the west because it's so dry, our dead plant material just doesn't decompose. Our dead trees, shrubs, grasses can stand there for literally decades on the landscape and they just don't rot away because it's too dry in the summer and often too cold in the winter. And so fire has always been our natural recycling system to recycle old dead plant material.

AMANDA: Right.

TOM: Yeah and this is Tom France I'd just add that there really is a razors edge right now between the recognition by our firefighters, primarily with the forest service, that letting fires burn is an effective forest management strategy, a necessary component of ecosystem management much needed in many parts of the west where we have older forests. And at the same time, these fires can so quickly get out of control and the political situation if you will where angry homeowners translate to angry politicians makes the decision whether or not to fight a fire very, very difficult. It makes the second guessing of a wrong call, a call not to fight a fire that then becomes bigger and larger than anyone anticipated subject to much second guessing. And I really have a lot of admiration for forest service incident commanders and the forest service decision makers that have to make these difficult decisions and I guess personally I'd like to see them make more calls to let fires burn because I think that's so necessary. But I certainly understand why they often err on the side of caution.

DON: Yeah just to add a little bit more to that, it has changed the job from the standpoint of being an incident commander. And we talked about the 4 fronts of the fire, but you end up spending a lot more time in front of people in town meetings, in front of politicians and government officials explaining and trying to get their concurrence from the standpoint of the strategies are really the ones that make the most amount of sense. But there's always tradeoffs that the community has to be

able to be willing to buy off on in order for that to become a reality. So it really is local government that is involved from the standpoint of the process.

TOM: If I may, a follow up on that. You talk about angry homeowners and angry politicians when you have to make these difficult decisions, but it also seems that part of the problem is the politicians allow homeowners to build right up next to a federal BLM or forest service lands and they become the focal point of trying to save their property maybe at great expense to taxpayers to save a few homes that are built right up next to federal land.

I guess the question is, do we need a buffer, a wider buffer around federal forest lands where homes are simply not allowed?

DON: Part of the model from the standpoint of where this country may need to look at is when you look at countries like Australia and New Zealand and some of the horrific fires they have back there, they're encumbering the property owner a lot more from the standpoint of knowing, preparing and defending their property but also not being an issue from the standpoint of having to evacuate the residents. So it really comes down to a lot more from the standpoint of personal responsibility in this day and age, and not relying on the fire services to be able to do everything for you.

TOM: And I guess I think we all know that land use decisions are pretty controversial in both parts of the west, maybe all parts - but I certainly think the climate change that is occurring is also changing the political climate and more and more local governments recognize the problem with building out into borderlands with national forest. As I say, Mazula County has stepped up and really challenged the forest service and undersecretary Ray over this Plum Creek negotiation in large measure because they don't want to be saddled with protecting remote recreational or second home development. And so I think it's a situation where the political reality is changing and local governments are more and more recognizing that they have to step in and at least think about policies and incentives or disincentives to keep people out of harms way in the forest.

AMANDA: All right, thank you Tom. The next question?

OPERATOR: And our next question comes from Lauren Marillo with Climate Wire, please go ahead.

LAUREN: So the 2 main factors it seems like we've been talking about here are the impact of fire suppression policies and then also changes in the weather availability from changes in snow pack and things like that. Are there areas where wildfires are increasing but the impact of suppression policies are less the factor? Are there areas where you can isolate out a little bit of the signature of global warming?

AMANDA: Steve do you want?

STEVE: Yes. The High Boreal Forests up in the High Boreal forests there's almost no people and so they - and also the forests don't have a lot of timber value and so they frequently aren't suppressed at all. They're just allowed to sit out and burn until they burn out. And so the Boreal Forest fire frequency is accelerated much like these lower latitude forests. And that's probably the best example I can think of of what you're asking about foresting out the climate signal from the suppression signal.

DON: Yeah, I'd like to comment on that too. And really it's difficult to paint the fire issue with the same brush throughout the country. If you can compare and contrast let's say southern California where the Chaperelle fields down here, with the brush and some of the timber areas have generally burned on a fairly regular basis. It's not an issue from the standpoint of suppression that has contributed to the fuel load, it's more of a climate type issue with the standpoint of at least the limited timber that we have is the capacity of the land to support trees that were germinated and grew 100 years ago. And that doesn't exist right now. So that's contributed to some of the insect infestation and the fire problems we've had down here. And I saw that trend start basically going back to the late 1970's in southern California down around the San Diego area on the Cleveland National Forest. So, but there are places in this country where definitely allowing a natural process to continue itself under the right conditions is very important and a part of the overall strategy. I can give you an example, in 2003 I was on fires in northern Montana adjacent to Glacier National Park. Essentially our objectives from the standpoint of keep the fire in the box was to manage our fires or allow them to continue a natural process as long as they were west of the continental divide, keep them out of Alberta Canada. And essentially other than that you were good to go. So those processes are important in areas like that in terms of the fires that burn in those environments in high elevation are essentially (inaudible) replacing fires. When it's time for

them to burn, it burns the entire stand. So that's a natural process that needed to be allowed to continue. The obvious limitations were you don't want to run the fire into our neighboring country and there were some issues from the standpoint of keeping it off the east slope of the mountain range. But those types of decisions and strategies are implemented all the time.

AMANDA: All right thank you Lauren for your question. Is there another question?

OPERATOR: And we have no further questions at this time.

AMANDA: All right. So I will proceed to close with a few items of business, however if any other questions come up please do let us know.

First a reminder that the mini-report is now available at www.nwf.org/news, and if you have any further questions please contact Mr. Alieo Weinemann using the information on the press release, that's Alieo Weinmann available directly at 202-797-6801. Or at weinmanna@nwf.org. Again those are 202-797-6801 and weinmanna@nwf.org.

Thank you for joining us today, and this concludes our conference.

OPERATOR: Thank you all for your attention, this concludes today's conference call. All participants may now disconnect.

(End of recording).