Opposing Views Attachment #11

Caring USFS Officials will Always Take the Most Effective Action Available to Reduce the Risk Of Homes Burning and Loss of Life should a Wildfire Start Near Neighborhoods Located in the Woods

Not Analyzing an Alternative in Detail that Applies Dr. Cohen's Fine Fuels Removal Methods Discussed below Indicates the Responsible USFS Official Believes Timber Removal resulting from Hazardous Fuels Reduction Logging is more Important than Preventing Homes from Burning

Dr. Cohen's background

Dr. Jack Cohen is a research fire physicist who does his research in the Forest Service's Missoula Fire Sciences Laboratory at the Rocky Mountain Research Station. Dr. Cohen is a Forest Service employee. His research findings clearly show that commercial logging to reduce fuels will not protect homes from wildfire damage in the Wildland Urban Interface (WUI).

Dr. Cohen's Research Findings Represent Best Science and Empirical Evidence Shows his Fire Damage Risk Reduction Methods that remove the Fine

Fuels Near the Home are Far Superior to Hazardous Fuel Removal

Dr. Cohen Is likely the only Ph.D. fire physicist in America who specializes in determining the best actions to reduce the risk of wildfire damage to homes. Dr. Cohen is a well published scientist-author. He has published 12 peer-reviewed scientific papers summarizing his research findings.

Independent Sources Emphasize the Effectiveness of Dr. Cohen's Fire Damage Risk Reduction Methods

"Homeowners are their own first line of defense. Saving a home from wildfire depends primarily on two factors: roofing material and the quality of the "defensible space" surrounding it.[8] Research Physical Scientist Jack Cohen noted after visiting homes that survived the Rodeo-Chediski Fire and those that were consumed, that had homeowners followed guidelines for creating defensible space—described as creating an area around a structure where fuels and vegetation are treated, cleared, or reduced to slow the spread of fire—more homes would have survived."

***Fact Sheet:* Understanding Fire and Fire Behavior**
Ontario Aviation and Forest Fire Management
http://www.emifpa.org/PDF/FactSheetUnderstandingFire.pdf

Dr. Cohen's opposing view #1 - "Research results indicate that the home and its immediate surroundings within 100-200 feet (30-60 meters) principally determines the home ignition potential during severe wildland-urban fires. Research has also established that fire is an intrinsic ecological process of nearly all North American ecosystems. Together, this understanding forms the basis for a compelling argument for a different approach to addressing the wildland-urban fire problem." (Pg. 1 – abstract)

Source: *Wildland-Urban Fire—A different approach*
http://www.nps.gov/fire/download/pub_pub_wildlandurbanfire.pdf

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Dr. Cohen's opposing view #2 - "A senior physicist at the Stanford Research Institute, C.P. Butler (1974), coined the term "urban-wildland interface" and described this fire problem as follows:

> "In its simplest terms, the fire interface is any point where the fuel feeding a wildfire changes from natural (wildland) fuel to man-made (urban) fuel." (Pg. 1)

Dr. Cohen's opposing view #3 - "The results of the diverse analytical methods are congruent and consistently indicate that ignitions from flames occur over relatively short distances--tens of meters not hundreds of meters. The severe-case estimate of SIAM indicates distances of 40 meters or less. Experimental wood walls did not ignite at 10 meters when exposed to experimental crown fires. And, case studies found that vegetation clearance of at least 10 meters was associated with a high occurrence of home survival." (Pg. 4)

Dr. Cohen's opposing view #4 - "Analyses of southern California home losses done by the Stanford Research Institute for the 1961 Belair-Brentwood Fire (Howard and others 1973) and by the University of California, Berkeley, for the 1990 Painted Cave Fire (Foote and Gilless 1996) are consistent with SIAM estimates and the experimental crown fire data. Given nonflammable roofs, Stanford Research Institute (Howard and others 1973) found a 95 percent survival with a clearance of 10 to 18 meters and Foote and Gilless (1996) at Berkeley, found 86 percent home survival with a clearance of 10 meters or more." (Pgs. 3 and 4)

Dr. Cohen's opposing view #5 - "Extensive wildland vegetation management does not effectively change home ignitability." (Pg. 5)

Dr. Cohen's opposing view #6 - "Home ignitability also dictates that effective mitigating actions focus on the home and its immediate surroundings rather than on extensive wildland fuel management. Because homeowners typically assert their authority for the home and its immediate surroundings, the responsibility for effectively reducing home ignitability can only reside with the property owner rather than wildland agencies." (Pg. 5)

Dr. Cohen's opposing view #7 - "As stated, the evidence indicates that home ignitions depend on the home materials and design and only those flammables within a few tens of meters of the home (home ignitability). The wildland fuel characteristics beyond the home site have little if any significance to WUI home fire losses." (Pg. 5)

Dr. Cohen's opposing view #8 - "Home ignitability implies that homeowners have the ultimate responsibility for WUI home fire loss potential. As shown, the ignition and flammability characteristics of a structure and its immediate surroundings determine the home fire loss potential. Thus, the home should not be considered a victim of wildland fire, but rather a potential participant in the continuation of the wildland fire. Home ignitability, i.e., the potential for WUI home fire loss, is the homeowner's choice and responsibility." (Pg. 5)

Dr. Cohen's opposing view #9 - "However, public and management perceptions may impede homeowners from taking principal responsibility. For example, the Federal Wildland Fire Management, Policy and Program Review (1995) observes, 'There is a widespread misconception by elected officials, agency managers, and the public that wildland/urban interface protection is solely a fire service concern.' In a *Journal of Forestry* article, Beebe and Omi (1993) concur, stating that, 'Public reaction to wildfire suggests that many Americans want competent professionals to manage fire flawlessly, reducing the risks to life, property, and public lands to nil.' These statements agree with Bradshaw's (1988) description of the societal roles in the WUI problem. He observes that homeowners expect that fire protection will be provided by others. Contrary to these expectations for fire protection, the fire services have neither the resources for effectively protecting highly ignitable homes during severe WUI fires, nor the authority to reduce home ignitability." (Pg. 6)

Source for quotes #2 to #9 above: Reducing the Wildland Fire Threat to Homes: Where and How Much?
Presented as the Fire Economics Symposium in San Diego, California on April 12, 1999.
http://www.fs.fed.us/rm/pubs_other/rmrs_1999_cohen_j001.pdf

Dr. Cohen's opposing view #10 - "Vegetation management beyond the structure's immediate vicinity has little effect on structure ignitions. That is, vegetation management adjacent to the structure would prevent ignitions from flame exposure; but vegetation management away from the structure would not affect ignition from flame exposure and would not significantly reduce ignitions from firebrands." (Pg. 4)

Dr. Cohen's opposing view #11 - "Past reports and recommendations as well as experimental research and modeling suggest that W-UI fire-loss mitigation should

concentrate on the residence and its immediate surroundings. Any strategy for effectively reducing the W-UI fire problem must initially focus on residential fire resistance." (Pg. 5 – Conclusion)

Dr. Cohen's opposing view #12 - "Instead of all fire protection responsibilities residing with fire agencies, homeowners take responsibility for assuring firewise conditions and the initial fire defense of their residences during wildland fires. The fire agencies become a community partner that provides information, coordinates and assists in meeting firewise requirements, and provides fire suppression assistance." (Pg. 5)

Source for quotes #10 to #12 above: Structure Ignition Assessment can Help Reduce Fire Damages in the WUI
Published in *Fire Management Notes*, Volume 57 No. 4, 1997
http://www.fs.fed.us/rm/pubs_other/rmrs_1997_cohen_j001.pdf

Dr. Cohen's opposing view #13 - "My examination suggests that the abundance and ubiquity of pine needles, dead leaves, cured vegetation, flammable shrubs, wood piles, etc. adjacent to, touching and or covering the homes principally contributed to the residential losses." (Pg. 4)

Source: *Examination of the Home Destruction in Los Alamos Associated with the Cerro Grande Fire July 10, 2000*
Source: USDA Forest Service, Rocky Mountain Research Station, Missoula, Montana, 2000.
http://www.fusee.org/docs/Preparedness/Cohen_examlosalamos%20copy.pdf

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Dr. Cohen's opposing view #14 - "The wildland fire management approach for preventing WUI fire disasters largely addresses the wildfire outside the home ignition zone rather than a home's ignition potential as determined by the conditions within the home ignition zone. Since 2000, agency fire management policy initiatives have emphasized fire suppression." (Pg. 24)

Dr. Cohen's opposing view #15 - "Preventing WUI fire disasters requires that the problem be framed in terms of home ignition potential. Because this principally involves the home ignition zone, and the home ignition zone primarily falls within private ownership, the responsibility for preventing home ignitions largely falls within the authority of the property owner. Preventing wildfire disasters thus means fire agencies helping property owners mitigate the vulnerability of their structures. The continued fire management focus on fire suppression suggests the WUI fire problem persists largely

as a consequence of framing the WUI fire problem primarily in terms of the fire exclusion paradigm." (Pg. 25)

Dr. Cohen's opposing view #16 - "The continued focus on fire suppression largely to the exclusion of alternatives that address home ignition potential suggests a persistent inappropriate framing of the WUI fire problem in terms of the fire exclusion paradigm." (Pg. 25)

Source for quotes #14 to #16 above: The Wildland-Urban Interface Fire Problem: A Consequence of the Fire Exclusion Paradigm
Published in *Forest History Today*, Fall 2008
http://www.foresthistory.org/Publications/FHT/FHTFall2008/Cohen.pdf

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Dr. Cohen's opposing view #17 - "For the same reason, mitigating home ignition potential during extreme wildland fires must focus activities within and immediate to the residential area, i.e. the home ignition zone. But the home ignition zone largely corresponds to private property. Thus, with minor exception, the authority for effectively reducing the home ignition potential belongs to homeowners. Public land management agencies can facilitate homeowner mitigations and these agencies may be able to reduce fire intensities and the extent of burning around communities. But these agencies cannot accomplish the necessary and sufficient actions necessary to prevent residential fire disasters during extreme fire conditions by treating beyond the home ignition zone." (Pg. 2)

Source: *Thoughts on the Wildland-Urban Interface Fire Problem*, June 2003
http://www.nps.gov/fire/download/pub_pub_wildurbaninterface.pdf

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Dr. Cohen's opposing view #18 - "A home with its immediate surroundings (about 100-150 feet from the structure) is called the Home Ignition Zone. Many factors about the HIZ determine the potential for ignition during a wildland fire, such as flammable wood roofs and materials like trees, grass, decks, or adjacent structures leading up to a home." (Pg. 1)

Source: Saving Homes from Wildfires: Regulating the Home Ignition Zone
Published in *Zoning News,* May 2001
http://www.battle-creek.net/docs/fire/Zoning.pdf

Dr. Cohen's opposing view #19 - "SIAM calculations indicate that large wildland flame fronts (e.g., forest crown fires) will not result in piloted wood ignitions (e.g., the typical variety of exterior wood walls) at distances greater than 40 meters (Cohen and Butler [In press])." (Pg. 4)

Dr. Cohen's opposing view #20 - "Field studies conducted during the International Crown Fire Modeling Experiment (Alexander et al. 1998) provided measured data for comparisons with SIAM model estimates. Total heat transfer (radiation and convection) and ignition data were obtained from heat flux sensors placed in wooden wall sections. The instrumented walls were located on flat, cleared terrain at 10, 20, and 30 meters downwind from the edge of the forested plots. The forest was variably composed of an overstory of jack pine *(Pinus banksiana)* about 13 meters high with an understory of black spruce *(Picea mariana)*. The spreading crown fire produced flames approximately 20 meters high." (Pg. 5)

Dr. Cohen's opposing view #21 - "Five burns were conducted where wall sections were exposed to a spreading crown fire. As the crown fires reached the downwind edge of the plot, turbulent flames extended into the clearing beyond the forest edge. In two of the five burns, flames extended beyond 10 meters to make contact with the wall section placed at 10 meters from the forest edge. When flame contact occurred, the walls ignited; however, without flame contact, only scorch occurred. The wooden panels at 20 and 30 meters never ignited and the panel at 30 meters never scorched." (Pg. 6)

Dr. Cohen's opposing view #22 - "Case studies of actual W-UI fires provide an independent comparison with SIAM and the crown fire experiments. The actual fires incorporate a wide range of fire exposures. The case studies chosen examine significant factors related to home survival for two fires that destroyed hundreds of homes. The Bel Air fire resulted in 484 homes destroyed (Howard et al. 1973) and the Painted Cave fire destroyed 479 homes (Foote 1994). Analyses of both fires indicate that home ignitions depend on the characteristics of a home and its immediate surroundings. Howard et al. (1973) observed 95 percent survival for homes with nonflammable roofs and a vegetation clearance of 10 to 18 meters. Foote (1994) observed 86 percent survival for homes with nonflammable roofs and a clearance of 10 meters or more." (Pg. 7)

Dr. Cohen's opposing view #23 - "The high survival rate for homes with nonflammable roofs and 10-20 meter vegetation clearances included firebrands as an ignition factor,

thus indicating that firebrand ignitions also depend on the ignition characteristics of the home and the adjacent flammable materials." (Pg. 8)

Dr. Cohen's opposing view #24 - "Wildland fuel reduction beyond the home ignition zone does not necessarily change home ignitability; therefore, wildland fuel reduction does not necessarily mitigate the W-UI fire loss problem." (Pg. 9)

Dr. Cohen's opposing view #25 - "Effective landscape fuel reduction does not necessarily prevent W-UI home fire destruction." (Pg. 10)

Dr. Cohen's opposing view #26 - "Fire losses depend on home ignitions and home ignitions depend on home ignitability. Thus, home ignitability, being limited to a home and its immediate surroundings, offers us the opportunity to separate the W-UI structure fire loss problem from other landscape-scale fire management issues. This conclusion has significant implications for the actions and responsibilities of homeowners and fire agencies, such as identifying and mapping the potential for W-UI residential fire destruction, identifying appropriate and effective mitigating actions, and determining who should take responsibility for home ignitability." (Pg. 10)

Dr. Cohen's opposing view #27 - "Thus, wildland fuel reduction that is effective for reducing the wildland fire intensity might be insufficient for reducing the destruction of highly ignitable homes. In contrast, a low home ignition potential reduces the chances of fire destruction without extensive wildland fuel reduction. These findings indicate that the W-UI home fire loss problem is a home ignitability issue largely independent of landscape fuel reduction issues." (Pg. 10)

Dr. Cohen's opposing view #28 - "The extent of the home ignition zone corresponds more to specific home and community ownership than to the landscapes of federal, state and local land management agencies. This suggests a corresponding responsibility for W-UI home fire loss potential residing with homeowners and communities. Thus, the home should not be considered a victim of wildland fire, but rather a potential participant in the continuation of the wildland fire. Home ignitability, i.e., the potential for W-UI home fire loss, is a homeowner and community choice and responsibility." (Pg. 11)

Source for quotes #19 to #28 above: What is the Wildland Fire Threat to Homes? Presented as the Thompson Memorial Lecture, April 10, 2000
http://www.nps.gov/fire/download/pub_pub_wildlandfirethreat.pdf

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Dr. Cohen's opposing view #29 - "Model results indicate that ignitions from flame radiation are unlikely to occur from burning vegetation beyond 40 meters of a structure. Thinning vegetation within 40 meters has a significant ignition mitigation effect." (Pg. 81)

Dr. Cohen's opposing view #30 - "Vegetation management to prevent ignitions from radiation does not require extensive vegetation removal hundreds of meters from a structure. Our analysis indicated that 40 meters was sufficient for a 20 meter flame height." (Pg. 86 – Conclusions)

Source for quotes #29 and #30 above: Modeling Potential Structure Ignitions from Flame Radiation Exposure with Implications for Wildland/Urban Interface Fire Management Presented at the 13th Fire and Forest Meteorology Conference. Lorne, Australia, 1996
http://www.firewise.org/resources/files/WUI_HIR/Modelingpotentialignitions.pdf

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Dr. Cohen's opposing view #31 - "Miracles aside, the characteristics of the surviving home and its immediate surroundings greatly influenced its survival." (Pg. 15)

Dr. Cohen's opposing view #32 - "Based on severe-case assumptions of flame radiation and exposure time, SIAM calculations indicate that wild-land flame fronts comparable to crowning and torching trees (flames 20 meters high and 50 meters wide) will not ignite wood surfaces at distances greater than 40 meters (Cohen and Butler, in press). Figure 2 shows the radiant heat a wall would receive from flames depending on its distance from the fire. The incident radiant heat flux, defined as the rate of radiant energy per unit area received at an exposed surface, decreases as the distance increases." (Pg. 17)

Dr. Cohen's opposing view #33 - "Analyses of both fires indicate that home ignitions depend on the characteristics of a structure and its immediate surroundings. Howard et al. (1973) observed 86 percent survival for homes with nonflammable roofs and a clearance of 10 meters or more." (Pg. 19)

Dr. Cohen's opposing view #34 - "Using the model results as guidance with the concurrence of experiments and case studies, we can conclude that home ignitions are not likely unless flames and firebrand ignitions occur within 40 meters of the structure. This finding indicates that the spatial scale determining home ignitions corresponds more to specific home and community sites than to the landscape scales of wildland fire management. Thus, the W-UI fire loss problem primarily depends on the home and its immediate site." (Pg.20)

Dr. Cohen's opposing view #35 - "Thus, the W-UI fire loss problem can be defined as a home ignitability issue largely independent of wildland fuel management issues. This conclusion has significant implications for the actions and responsibilities of homeowners and fire agencies, such as defining and locating potential W-UI fire problems (for example, hazard assessment and mapping), identifying appropriate mitigating actions, and determining who must take responsibility for home ignitability." (Pg.20)

Dr. Cohen's opposing view #36 - "The W-UI fire case studies indicated approximately 90 percent survival with a vegetation clearance on the order of 10 to 20 meters for homes with nonflammable roofs. Thus, the case studies support the general flame-to-structure distance range of 10 to 40 meters as found through modeling and experiments." (Pg.20)

Dr. Cohen's opposing view #37 - "A change needs to take place in the relationship between homeowners and the fire services. Instead of home-related presuppression and fire protection responsibilities residing solely with fire agencies, homeowners must take the principal responsibility for ensuring adequately low home ignitability." (Pg.21)

Source for quotes #31 to #37 above: Preventing Disaster Home ignitability in the Wildland-Urban Interface
Published in the *Journal of Forestry* 98(3): 15-21, 2000
http://www.nps.gov/fire/download/pub_pub_preventingdisaster.pdf

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Dr. Cohen's opposing view #38 - "Many scientists and natural resource agencies suggest extensive fuel treatments to reduce the possibility of severe and intense wildfires that could damage ecosystems, destroy property, and take human life (USDA Forest Service, 2000; GAO, 2003a,b). However, there are a number of misconceptions and misunderstandings about fuel treatments and their use as a panacea for fire hazard reduction across the United States (Finney and Cohen, 2003; Franklin and Agee, 2003)." (Pg.1998)

Dr. Cohen's opposing view #39 - "Given the right conditions, wildlands will inevitably burn. It is a misconception to think that treating fuels can ''fire-proof'' important areas. It would be virtually impossible to exclude fire from most temperate terrestrial ecosystems because ignition sources are prevalent and fuels cannot be eliminated. Ignition is rarely affected by fuel treatment." (Pg.1998)

Dr. Cohen's opposing view #40 - "Treating fuels to facilitate suppression is an example in circular logic. If fuel treatment makes suppression more successful in general, then less area will be burned in the short run and more acreage will tend to burn under extreme conditions, when suppression is ineffective. The inevitable result is that more area is burned in fewer, more unmanageable events with greater consequences. In addition, fire suppression leads to continued fuel accumulation and, in turn, more difficult conditions for suppression. This phenomenon has been described as ''the wildland fire paradox'' (Brown and Arno, 1991). Rather than creating conditions where fire is easier to suppress, fuel treatments should strive to create conditions where fire can occur without the need for suppression." (Pg.1998)

Dr. Cohen's opposing view #41 - "Bessie and Johnson (1995) show weather (fuel moisture and wind) is far more important than fuels in determining fire behavior; reducing fuels may have a limited impact on fire occurrence." (Pg.1999)

Dr. Cohen's opposing view #42 - "Treating fuels to reduce fire occurrence, fire size, or amount of burned area is ultimately both futile and counter-productive." (Pg.1999)

Dr. Cohen's opposing view #43 - "Since the home ignition zone largely occurs on private lands, most land management agencies do not have the authority to mitigate the WUI ignition potential directly (Cohen, 2000b). However, the opportunity exists to explicitly define responsibilities for the WUI fire potential (i.e. the home ignition zone) consistent with areas of jurisdiction and separately from ecological wildfire issues." (Pg.1999)

Dr. Cohen's opposing view #44 - "It may not be necessary or effective to treat fuels in adjacent areas in order to suppress fires before they reach homes; rather, it is the treatment of the fuels immediately proximate to the residences, and the degree to which the residential structures themselves can ignite that determine if the residences are vulnerable." (Pg.1999)

Dr. Cohen's opposing view #45 - "WUI fuel treatments can be designed such that an extreme wildfire can occur in the WUI without having a residential fire disaster. Although general wildfire control efforts may not benefit from fuel treatments during extreme fire behavior, fuel modifications can significantly change outcome of a wildfire within a treatment area. Research has shown that a home's characteristics and its immediate surroundings principally determine the WUI ignition potential during extreme wildfire behavior (Cohen, 2000a,c, 2003, 2004). The area that primarily determines WUI ignition potential is called the home ignition zone (Cohen, 2001). WUI fuel treatments can address the home ignition zone by removing flammable materials immediately adjacent to residences.")Pg. 1999)

Dr. Cohen's opposing view #46 - "Treating fuels may not reduce suppression expenditures. It is a natural mistake to assume that a successful fuel treatment program will result in reduced suppression expenditures. Suppression expenditures rarely depend directly on fuel conditions, but rather on fire location and on what resources are allocated to suppression. The only certain way to reduce suppression expenditures is to make a decision to spend less money suppressing fires." (Pg. 2000)

Dr. Cohen's opposing view #47 - "Thinning to reduce crown fire potential requires careful evaluation of the tradeoffs in treatment effects on potential surface fire behavior and crown fire behavior (Scott and Reinhardt, 2001). Thinning will often result in increased potential surface fire behavior, for several reasons. First, thinning reduces the moderating effects of the canopy on windspeed, so surface windspeed will increase (Graham et al., 2004). It also results in increased solar radiation on the forest floor, causing drier surface fuels. It may also cause an increase in flammable grassy and shrub fuels over time, due to the reduced tree competition." (Pg.2000)

Dr. Cohen's opposing view #48 - "Some viable fuel treatments may actually result in an increased rate of spread under many conditions (Lertzman et al., 1998; Agee et al., 2000). For example, thinning to reduce crown fire potential can result in surface litter becoming drier and more exposed to wind. It can also result in increased growth of grasses and understory shrubs which can foster a rapidly moving surface fire." (Pg.2000)

Dr. Cohen's opposing view #49 - "Treating fuels may not improve ecosystem health. Ecosystem restoration treatment and fuel treatment are not synonymous. Some ecosystem restoration treatments reduce fuel hazard, but not all fuel treatments restore ecosystems. Ecosystem restoration treatments are often designed to recreate presettlement fire regimes, stand structures and species compositions while fuel treatment objectives are primarily to reduce fuels to lessen fire behavior or severity—this is known as ''hazard Reduction.'' Achieving fuel hazard reduction goals in the absence of ecosystem restoration is insufficient (Dombeck et al., 2004; Kauffman, 2004)." (Pg.2000)

Dr. Cohen's opposing view #50 - "Conversely, some fuel treatments can reduce fuels but create stands that are quite dissimilar from their historical analogs. Examples include mastication treatments that break, chip, or grind canopy and surface woody material into a compressed fuelbed and thinning treatments that remove the fire adapted species and leave shade-tolerant, late successional species." (Pg.2000)

Source for quotes #38 to #50 above: Objectives and considerations for wildland fuel treatment in forested ecosystems of the interior western United States

Published in *Forest Ecology and Management* 256, 2008
http://www.firewise.org/Information/Research-and-Guidance/WUI-Home-Ignition-Research/~/media/Firewise/Files/Pdfs/Research/CohenFuelTreatment.pdf

Concluding Comments

Nearly all Forest Service projects that claim to lessen the risks to homeowners living in the WUI propose to reduce hazardous fuels. The NEPA documents that analyze these fuels reduction treatments conveniently do not mention Dr. Cohen's methods because the Purpose & Need is to reduce fuels … **not** (emphasis added) to protect homeowners as it should be.

Reducing hazardous fuels is an alternative way to lessen the risks to homeowners living in the WUI. It is definitely not a goal or objective unto itself and should never appear in the Purpose & Need.

However there is a reason most USFS line-officers deal with WUI risks this way. They know hazardous fuels reduction treatments include the logging of merchantable trees which produces volume and helps them meet their supervisor's volume expectations and spends the allocated "timer" money each FY.

Line-Officers who propose hazardous fuels reduction projects are clearly more interested in accumulating volume than they are protecting the public in the WUI.

There are laws that prohibit such actions by a public servant whose salary is partially paid by the families living in the WUI.