

Collateral Damage: The Environmental Effects of Firefighting

The 2002 Biscuit Fire Suppression Actions and Impacts

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Western Fire Ecology Center

May 2004

EXECUTIVE SUMMARY

The newsmedia and politicians commonly portray firefighting incidents in the most superficial and sensationalistic terms, as essentially heroic military-style campaigns against the destructive forces of Nature. Federal closures of National Forests are routinely declared during wildfires, thereby prohibiting on-the-ground monitoring of firefighting actions by the public and the press. The result is that fire suppression operations are rarely critically examined, and the public is kept in the dark about firefighting actions and their associated risks, costs, and impacts.

Collateral Damage: The Environmental Effects of Firefighting describes the direct, indirect, and cumulative environmental impacts of firefighting, and offers specific examples from the 2002 Biscuit Fire in southern Oregon. The 499,570 acre Biscuit Fire was the Nation's largest wildfire in 2002, and at a cost of over \$155 million, became the world's most expensive firefighting incident in history. The Biscuit Fire area is currently the site of the largest Forest Service timber sale proposal in modern history as the agency intends to "salvage" log over half a billion board feet of burned trees, including trees that were felled for firelines or were killed during suppression firing operations. The Biscuit Fire suppression actions and post-fire logging proposal has generated intense public controversy that continues to grow.

The Cumulative Ecological Effects of Fire Exclusion

The past century's policy to systematically suppress and exclude all wildland fires has led to widespread alteration and degradation of many fire-adapted ecosystems. Ironically, one of the cumulative effects of past fire suppression and fire exclusion is that each time a wildfire is successfully contained and controlled, this makes it more difficult to suppress future wildfires, increasing the probability that they will defy fire control efforts.

In the Siskiyou National Forest an average 20,833 acres burned annually until the 1940s, but increasing investments in suppression resources over the next 60 years reduced the average annual burned acreage to only 2,772 acres, just 13 percent of the pre-suppression era average amount. In some areas—but not all--this caused significant changes in the density, structure and composition of live vegetation, and the size, amounts and distribution of dead fuels. Moreover, fire exclusion has caused a decline in landscape and biological diversity: pine and oak savanna, deciduous woodland, and meadow habitats that were historically maintained by relatively frequent low-intensity fires have

become smaller by up to 50 percent in the Siskiyou National Forest.

The ecological changes in vegetation and fuels caused by past fire exclusion were important factors influencing fire spread and intensity, but like other large wildfire events, the Biscuit Fire was primarily influenced by climate and weather factors. At the time the Biscuit Fire started, the area had been through prolonged severe drought and was experiencing record-breaking temperatures. During the terrain and wind-driven "blow-up" episodes, the wildfire burned rapidly and intensely across many different vegetation types and fuel profiles including sparsely-vegetated "serpentine" soil areas and deforested clearcuts. Moreover, suppression firing operations played an important role in the spread of the fire.

The Direct Environmental Effects of Fire Suppression

Fireline Construction

Constructing firelines by handcrews or heavy equipment results in a number of direct environmental impacts: it kills and removes vegetation; displaces, compacts, and erodes soil; and degrades water quality. When dozerlines are cut into roadless areas they also create long-term visual scars that can ruin the wilderness experience of roadless area recreationists. Site-specific impacts of firelines may be highly significant, especially for interior-dwelling wildlife species sensitive to fragmentation and edge effects.

On the Biscuit Fire approximately 405 miles of fireline were constructed; this compares to 500 miles of existing logging roads in the fire area. Firelines were constructed through highly erosive slopes comprised of serpentine soils that are prone to gully erosion and are slow to revegetate. Over 57 linear miles of dozerline were carved into serpentine soils; in some places dozerlines were up to 40 feet wide.

Out of approximately 160 miles of dozerlines, at least nine miles were constructed within riparian zones and involved 196 stream crossings. These activities dumped sediment directly into streams, degrading water quality and fish habitat.

Tree Felling

Another component of fire suppression involves tree cutting and vegetation removal. Both small-diameter understory and large-diameter overstory trees are felled to construct firelines, helispots, and safety zones.

Firelines constructed in the northern portions of the Biscuit Fire were located in areas of mature/old-growth forest, and many large-diameter trees were felled by bulldozers and fellerbunchers. Many of these trees were subsequently cut to commercial length, decked, and later sold in so-called "hazard tree" and "salvage" timber sales.

Besides habitat loss and scenic degradation, an additional impact of tree felling along firelines is, ironically, the creation of new fuel hazards by leaving "windthrows" of downed woody debris and vegetation. Many Biscuit firelines now pose a significant fire hazard requiring expensive fuels

reduction treatments.

Chemical Use

A host of different toxic chemical fire retardants are used during fire suppression operations. Concentrated doses of retardant in aquatic habitats can immediately kill fish, or lead to algae blooms that kill fish over time. Some retardants degrade into cyanide at levels deadly to amphibians. When dumped on the ground, the fertilizer in retardant can stimulate the growth of invasive weeds that can enter remote sites from seeds transported inadvertently by suppression crews and their equipment.

Suppression policies call for pilots to avoid dumping retardant into water bodies, but airtankers were ordered to the Biscuit Fire even when visibility was poor due to smoke conditions, and communication was not available to direct them to targets. Consequently, fire retardant was dropped within some riparian areas, including heavy direct applications into tributaries of the lower Illinois River. In just one zone of the Biscuit Fire, 491,547 gallons of the fire retardant, Phos-Chek, was used at a cost of \$594,776, with over 104,664 gallons used on a single day (August 14).

Water Use

The water-borne pathogen, *Phytophthora lateralis* is present throughout the Siskiyou, and is usually fatal to Port Orford cedars ("POC"). Chlorine was used to treat potentially contaminated water that was used in fire engines, tank trucks, and helicopter buckets, and to wash vehicles before entering uninfected POC areas. A total of about 4.5 million gallons of chlorinated water had been used in suppression actions by August, 2002. Yet, 227,960 gallons of untreated contaminated water was dumped on the boundary of a POC protection area located near Gasquet, California. Untreated water was also permitted to be dropped from helicopters on ridgetops under the assumption that POC grows only in lower drainages. New infestations of POC disease are expected to result from suppression equipment using contaminated water.

Other impacts to fish and riparian habitats in the Biscuit Fire occurred due to water pumping, the use of chlorine bleach to disinfect water, and improper pumping procedures. When a water tender broke down and the operator jettisoned his entire load of chlorinated water into the stream, this killed approximately 80 native cutthroat fish.

Suppression Firing Operations

One of the many paradoxes of fire suppression is that it involves a considerable amount of human-caused fire reintroduction under the philosophy of "fighting fire with fire." The most routine form of suppression firing, "burnout," occurs along nearly every linear foot of perimeter fireline. Another form of suppression firing, "backfiring," occurs when firefighters ignite a high-intensity fire near a wildfire's flaming edge, with or without a secured containment line. In the "kill zone" between a burnout/backfire and the wildfire edge, radiant heat intensity can reach peak levels, causing extreme severity effects and high mortality of wildlife by entrapping them between two high-intensity flame fronts.

Burning out is commonly used on wildfire "complexes" (a cluster of smaller wildfires) in order to

merge them together into a single large fire perimeter. As well, large unburned "green islands" located far inside firelines are often deliberately ignited. During indirect attack strategies, burnout operations can take place several miles away from the edge of a wildfire, or alternately, several miles away from firelines. Consequently, firing operations can greatly add to the total acreage of wildfires, and cause a range of low to extreme fire behavior and severity.

An historically unprecedented amount of burnout occurred on the Biscuit Fire. Approximately 106,690 acres were burned out in just one (out of four total) incident management zones—the equivalent of 167 square miles. Some burnouts lasted several days, extending over 30 miles and encompassing 30,000 acres in a single firing operation. In fact, some of the Biscuit burnouts were larger than most of the wildfires burning elsewhere in Oregon in 2002. On several occasions during the Biscuit Fire, burnouts were the major source of active burning or fire spread.

Despite agency and newsmedia claims that the firing operations saved homes and communities located in the Illinois Valley, during the episodes of major fire spread the winds were mainly pushing the wildfire away from these communities. Ironically, the closest the Biscuit Fire ever came to the communities in the Illinois Valley were largely the result of the burnout operations, not the wildfire itself. Backfires ignited near the communities of Oak Flat actually destroyed some homes and property.

The Indirect Environmental Effects of Fire Suppression

Off-Highway Vehicle Use

Firelines, especially dozerlines, can become new "ghost" roads that enable unauthorized or illegal OHV users to drive into roadless areas. These OHVs create further soil and noise disturbance, can spread garbage and invasive weeds, and increase the risk of accidental human-caused fires. Motorcycles are reportedly already using some of the Biscuit dozerlines, causing extensive soil rutting in several areas.

Road Reconstruction

Roads that have been blockaded, decommissioned, or obliterated in order to protect wildlife or other natural resource values are often reopened for firefighter vehicle access or use as firelines. The Biscuit Fire suppression effort reopened and reconstructed many abandoned or barricaded roads, and extended the length of some roads. Dozers also improved old jeep trails ("4WD" roads) for use as firelines or firefighter vehicle access, including a jeep trail that was widened up to 40 feet wide for a length of three and a half miles. These reopened roads and improved jeep trails now invite unauthorized OHV use.

Spread of Noxious and Invasive Weeds

Both vegetation removal and soil disturbance by wildfire and suppression activities can create ideal conditions for the spread of invasive weeds, which can significantly alter the native species composition of ecosystems, and in some cases can change the natural fire regime to a more fire-prone

condition. Firefighters and their vehicles can be vectors for transporting invasive weed seeds deep into previously uninfested wildlands. On the Biscuit Fire, firefighters were repeatedly staged and camped in areas that had known populations of noxious weeds, and the potential for spread of these weeds is very high.

Post-Fire Logging

Both so-called "salvage" logging and "hazard tree" removal often follows wildfire suppression incidents. Approximately 11,275 acres of proposed salvage logging units in the Forest Service's preferred alternative for the Biscuit Fire Recovery Project are located inside areas in Zone One that were deliberately burned out. The Forest Service also allowed commercial logging of approximately five million board feet of "hazard trees" alongside roads that were used for firelines. The Siskiyou National Forest is now proposing to commercially extract 14 million board feet of trees in order to create 309 miles of fuelbreaks for future firelines.

Suppression Impacts on Special Emphasis Management Areas

Botanical Areas

The Klamath-Siskiyou is internationally recognized as one of the most botanically significant ecoregions on the North American continent, and has been proposed as a world heritage site and biosphere reserve by scientists from UNESCO. Botanical Areas (BAs) have been established to protect rare, sensitive, threatened and endangered endemic plants and to preserve the region's native biodiversity. Fire suppression and/or BAER activities adversely affected 10 of these BAs on the Siskiyou National Forest.

Research Natural Areas

Research Natural Areas (RNAs) are established for non-manipulative research, observation, and study of naturally occurring physical and biological processes without destructive human intervention. Biscuit Fire suppression actions affected the Hoover Gulch and Lemmingsworth Gulch RNAs.

Heritage Sites

At least 168 heritage sites had been documented within the Biscuit Fire perimeter prior to the fire, and an additional 25,000 acres have not yet been surveyed but are considered to have high probability for new sites. Degradation due to fire suppression impacts, mainly ground-disturbing activities for construction of firelines and safety zones, may have compromised their eligibility for the National Register of Historic Places.

Late-Successional and Riparian Reserves

Late-Successional Reserves (LSRs) and Riparian Reserves (RRs) were established by the Northwest Forest Plan to protect rare and sensitive old-growth and aquatic habitats for endangered species such

as the northern spotted owl and salmon. Ironically, aggressive fire suppression operations are allowed inside LSRs and RRs; thus, chainsaws, bulldozers, helicopters and airtankers, chemical retardants, and ignition devices may all be deployed inside these sensitive areas. Several tens of thousands of acres of LSRs and RRs on the eastern half of the Biscuit Fire were scorched by suppression firing operations conducted between August 8-20.

Wilderness Areas

As much as 99% of the 179,870 acre Kalmiopsis Wilderness Area was burned during the Biscuit Fire. For the most part, though, suppression activities stayed out of the Wilderness Area, but the southern section of the perimeter fireline was plotted through the Kalmiopsis Wilderness.

Roadless Areas

In general, roadless areas are least altered by past management activities including fire suppression, have the highest ecological integrity, and the highest resilience to wildland fire compared to logged and roaded landscapes. On the Biscuit Fire, indirect attack strategies focused most of the suppression activities on the network of logging roads in the Siskiyou National Forest, but the southeastern perimeter containment line was routed right through an unroaded section of the South Kalmiopsis Roadless Area. Most suppression activity in the North Kalmiopsis Roadless Area was burnout.

Wild and Scenic Rivers

The goal of Wild and Scenic River (WSR) management is to maintain the river environment in a natural state while also providing for recreational opportunities. During the Biscuit, Fire suppression operations adversely affected portion of the Chetco, Illinois, and North Fork of the Smith WSRs.

Meadow Communities

Natural meadows are attractive sites for locating firelines, helispots, safety zones, and fire camps, but these suppression activities can cause significant, long-term damage to meadow habitats. During the Biscuit Fire, firefighting operations--particularly construction of safety zones--damaged several meadows. Trees were felled, dozers removed sod, and vehicle access was improved, leaving the meadows denuded down to mineral soil in places, covered with downed logs and slash, and scarred by dozer berms. These impacts necessitated expensive post-fire rehabilitation efforts.

Conclusion

Land management agencies may never get off the "treadmill" of increasing fuel accumulations, declining biodiversity and forest health, and large severe wildfires unless and until aggressive fire suppression actions are reduced in number and scale. Proactive programs for fire management planning, public fire ecology education, community fire preparation, hazardous fuels reduction, and ecological forest restoration must be developed and implemented. Ultimately the only viable long-term solution to the current wildfire crisis is to reintroduce fire in fire-adapted ecosystems through prescribed burning and wildland fire use.

Recommendations

The ultimate goal is to make the need for aggressive fire suppression operations become the exception rather than the rule. Recommendations include:

- collaborative land and fire management planning that implements the Federal Wildland Fire Policy and complies with the National Environmental Policy Act (NEPA)
- a fire ecology education campaign for the general public and agency employees that informs people about the benefits of fire and the effects of suppression
- prioritization of the National Fire Plan on community fire preparation rather than fire exclusion/suppression in remote backcountry wildlands
- ecological fuels reduction and forest restoration projects that support fire reintroduction goals
- firefighter training, performance measures, and new research and development in minimum impact suppression tactics
- and end to the "blank check" deficit spending system for funding fire suppression by applying greater Congressional oversight and Administrative accountability for establishing fixed suppression budgets and limiting expenditures
- a programmatic NEPA analysis that compares the risks to firefighters, costs to taxpayers, and impacts to ecosystems from fire exclusion/suppression versus prescribed fire reintroduction and wildland fire use
- All of the above policy recommendations can all help prevent the need for reactive emergency suppression actions.

Collateral Damage: The Environmental Effects of Firefighting makes the case for a programmatic NEPA analysis and informed public debate on the environmental effects of fire suppression. This analysis will help establish rationale for conducting safe, cost-efficient, and ecologically-sound prescribed burning and wildland fire use, instead of relying upon risky, fiscally wasteful, and ecologically destructive reactive wildfire suppression and post-fire salvage logging as the dominant fire and fuels management activities of the U.S. Forest Service.

Heisel, Leanne

From: Gene Smith [gdsmith@rangeweb.net]
Sent: Wednesday, January 16, 2008 3:01 PM
To: Heisel, Leanne
Subject: Veivs on wildfire fighting

I am an eastern Montana rancher that has been fighting fire for many years. I live in a fire-prone area that has multiple fires every year, often on our ranch. Most of the fires are in Ponderosa pine covered country that can be very rough. I have found that there are two times that a fire is relatively easy to control. One is when it first starts, the other is at night.

The easiest time to stop a fire is before it can get any size. Alert people can really help here, spotting a fire before it grows. The local ranchers often stay up all night after a lightning storm to watch for fires. They know if they find the fire early they can get it out before it takes off the following morning. Before dawn the fires can usually be controlled with the local ranchers and volunteer fire department. Aircraft are the obvious way to get to a fire fast if it gets away from the first attempts at control. I have fought fire beside helicopters, SEATS and larger air bombers. They are very good at getting to a fire quickly. The aircraft need to be in the areas where the fire danger is high. They are easy to move to new areas as conditions warrant. Lightning storms are predictable, we should be ready.

Fighting fire at night. At night the winds go down, the humidity goes up and the fire dies way down. If you can operate in the dark it is far easier and safer to fight fire at night. I realize the government agencies, I am familiar with BLM policies, usually do not go near a fire at night. They are afraid of the dark when they should be afraid of the fire in the daylight. The fire dies down in the evening and they all go home until the fire comes out hot again the next day. Some fire units should be trained to go in and work on the fire during the night. We have excellent luck stopping them that way. I have seen times when we couldn't even get a backfire to burn at 2:00 AM and by 10:00 AM the following morning the fire would be virtually unstoppable.

I would like to relate a story to explain some of my thinking. It shows some of the reasons that wildland fires have gotten so expensive. We had a fire start on some mixed private and BLM land north of Broadus in 2006. Conditions were dry and a lightning storm came through late evening. Local ranchers were watching and saw the fire start up sometime in the middle of the night. I didn't get a call until around 2-3:00 AM. By then many local ranchers and the local Volunteer Fire Department had been on the fire for an hour or two. It was cool and the fire just crawling along. We managed to have the fire completely controlled by dawn. Powder River County had put a firebreak around the fire with graders in the dark. The thing was controlled, most of us went home for some needed rest. BLM showed up with some very nice pumping equipment so we were not worried about the fire getting away. About 10:00 AM BLM decided to burn some grass and trees between the firebreak and the burnt edge of the fire. Burning fuel between the fire and the firebreak is a good idea. Burning it in the middle of the day when fire conditions are extreme is not a good idea, especially when the fire is not actively burning. The fire was down, if they had just watched the fire until evening and then did their burn it would have been no problem. The fuel they lit burned very explosively. They got lucky, the winds stayed moderate and they hit it with a helicopter and bulldozer as well as a bunch of people and pumpers. The homeowners downwind were evacuating. The homeowners were scared and it didn't look very good. It could have easily gotten away and this was a fire that had been controlled before dawn! I could walk along the whole edge and it was not actively burning anywhere on the edge at 5-6 AM. They ended up using a lot more manpower and equipment than was needed for this fire. I could have easily burned homes. Two pumpers watching that fire for one day and then lighting it in the evening to control extra fuel would have been much cheaper and safer. We know what makes these fires explode, we need to fight them smarter.

I realize that fighting fires in the mountains is different, but many fires are not in the mountains. They are where they can be accessed by crews anytime of the day or night. Hit them hard and hit them fast, even in the dark.

Feel free to contact me if I can help.

Gene Smith
Olive, MT



Miss Barbara Lynes



① 1-17-08

I am commenting on fire suppression; coming from a woman's viewpoint and as a past federal employee at Tropper Cr. Job Corps.

I have been exposed to fire fighting by the times I have cooked for fire camps and supervising job corps students in fire camps and by living next the F.S. in a heavily forested area.

I have lived here for 30+ years and have naturally observed the forest services fire fighting operations.

Since our past dry years low snowpack + lack of rain in the summer, I feel that forest fire industry has become big business and w/this comes lack of trust of how the F.S. is handling the situation. The priority now seems to be that

lets it get ^④ going and spends
the endless amounts of money
to watch it burn. If we
are to "let it burn" then why
do we need camps of managers
to watch it in these special
locations? Once again
wasting money. I am
sorry to say but I have
seen the ins + outs of this
organization too much +
witnessed alot of the un-
necessary behavior. I feel
the organization is crooked
and incompetent. I feel and
know of other qualified people
who understand + care about our
forests, who could do a better
job at managing our fires and
wouldnt spend near the money.
Sincerely, sustainably + frustrated
Barb Lynes

January 17, 2008

To Fire Suppression Committee - Request for Comments
Response to items #1 Fire fighting operations, #2 Efficient use of resources, #3
Impacts on private and #4 Management policies.

In light of the recognized climate change towards warming, the federal government needs to seriously reconsider its intentional employment of "fire-use" fires, especially early in the season. In this age of drought and global warming, fires that are "let go" early in the season have quickly become "Mega-fires", which consequently aren't possible to suppress or control. These fires result in extremely high burning temperatures, which have detrimental effects on natural forest resources. They strain state and local fire suppression budgets and private resources and businesses.

"Mega-fires" have a drastically negative effect on the air quality in Montana. Forest fires add CO2 and other pollutants to the atmosphere. CO2 is the largest contributor to global warming. The extreme burn is a double-edged sword, as the burned forests no longer have the ability to absorb CO2. We really need to do everything we can to decrease, not increase our air pollution. The federal government should be a leader in pollution prevention.

At this time, my experience is that early season "**fire-use**" is a tool that we can no longer afford. After these fires are let-go, they often become uncontrollable and threaten private and state ground. They severely degrade Montana's air quality and add to further global warming. Their effects are very costly and benefits are few. If we choose to continue down the road of let-burn in the future, the effects to the environment and strain on local resources will only become more severe.

***The easiest way to reduce fire suppression costs is to suppress fires when fires are small.

***Early detection and aggressive initial attack can be the most important steps to reduce costs and degradation of our air and water.

Hoss

From: "Hoss" <oldhoss46@interbel.net>
To: "oldhoss46" <oldhoss46@interbel.net>
Sent: Thursday, January 17, 2008 1:10 PM
Subject: Fw: My comments on forest fire in Montana

----- Original Message -----

From: Hoss
To: pat morrison ; oldhoss46
Sent: Thursday, January 10, 2008 1:35 PM
Subject: Fw: My comments on forest fire in Montana

----- Original Message -----

From: Hoss
To: Aubyna
Sent: Thursday, January 10, 2008 1:32 PM
Subject: My comments on forest fire in Montana

Forest fire in the state of Montana is a very serious issue. My comments are based on what I have observed while living here and my knowledge of fire itself. I was a volunteer fireman in Ohio for 15 years. During that time we did have "woods fires", although not ones of such magnitude as here in Montana. So my comments here are made with the understanding of the problem at hand.

Fire of course takes three components to occur; fuel, oxygen, and ignition. Most of the time, the ignition is lightning. The fuel load is overwhelming and of course oxygen is everpresent. The easiest thing to deal with that we can control is the fuel load. I see forests that are very large, millions of acres to be specific. I see forests that are not being cared for as was the original intention when the Forest Service was created. I see our Forest Service officials bowing to demands made by those who do not understand fire or the seriousness of this problem. In short, I feel we need much much more logging to take place. We need major thinning in all areas of our forests. We need better access which includes elimination of locked gates or at least gates opened at once when a severe lightning storm has occurred. We need more roads, maintained roads to access all forest locations. Road obliteration must cease at once. This practice is senseless. If you can get to a fire quickly you can deal with it on a small scale. Time lost waiting for locked gates to be opened, or kelly humps to be dozed over is trees lost. Response time is so very important. The quicker, the better. I also feel the private sector can help in this. I myself have a trailer set up in fire season with a 400 gallon water supply tank, 100 feet of hose and a good pump to push the water. I know I can respond to a fire in my area much quicker than the Forest Service or even the local volunteer department that serves us. Back in Ohio on the department I served with, we used to pride ourselves on having equipment leaving the station in 3 minutes or less. A small fire is much easier to deal with than a large one. And the modern practice of walking away from a forest fire at sundown has to cease. Nighttime, even though more dangerous is a very good time to fight a forest fire. The wind is usually much less by then, the hot spots can be seen so much easier and it is cooler for the men on the hand crews.

So management practices of old have to change. Harvest over ripe log stands. Cut the dead trees and send them to a mill before they fall down and add to the fuel load.

Thin new stands.

Private owners should be encouraged to maintain a cleared area around all structures and manage their woodlots. Help and advice is readily available on the Internet and through the local fire services.

Burning of slash has caused many large run away fires in this state also. It is unnecessary to burn slash anymore. Technology is available in this county to harvest slash from logging and thinning and process it to be used to create energy. This practice is widely used overseas and for some reason is slow to catch on in this country. That would also clean up the post logging air here. We Montanas love clean air but are forced to breathe smoke from the forest fires and from slash burnings. This does not have to happen any longer. Here again, we need policy changes.

The gist of all of my comments is we need a major overhaul of our present policies. I would love to see these changes before our next fire season. Our manpower and equipment resources are good I feel. Now we need the changes I have discussed implemented. I feel these changes would benefit each and every person in this state plus those who travel here. Thank you for taking time to read my comments. Ron Charlton, Trego Montana.

Ronald James Charlton 1/17/08

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Version: 7.5.516 / Virus Database: 269.19.6/1230 - Release Date: 1/17/2008 4:59 PM

January 17, 2008

Senator John Cobb
Chairman, Fire Suppression Interim Committee

Dear Senator and Committee Members,

I recently attended your interim committee meeting on behalf of Greenfields Irrigation District (GID) of Fairfield, MT. We share Montana's concerns as stated during the discussion of the State-Federal Relations topic on your agenda.

GID provides irrigation water to about 540 farm families on 83,000 acres located on the Fairfield Bench northwest of Great Falls. Our water supply comes from the Sun River, with storage reservoirs at Gibson Dam and Pishkun Reservoir. The watershed area is located mostly on federal lands, including wilderness lands.

Since 1988, one third of our water shed area has burned off. This has caused earlier spring runoff and increased erosion, since the canopy is no longer there to provide shaded areas for a more orderly melt and run off of our snow pack.

Our reservoirs do not have the capacity to retain this faster, earlier run off, causing more problems down stream with increased erosion and sediment. We also run out of water for deliveries earlier in the summer now, and our farmers and ranchers are financially affected with reduced crop production.

GID's concerns include the Forest Services' plan to not actively or aggressively suppress wildfires originating in wilderness areas until they become a threat to homes or private property. We feel that the canopy in our watershed area is a valuable asset and has not been appropriately considered.

The drought and extreme warm conditions we were faced with last summer should have also been a trigger point for aggressive initial attack on all wildfires. Letting these fires build in the back country can be a major disaster when they come roaring out of the wilderness. We only have to look back to the Canyon Creek fire in 1988 to see the results of that mistake.

In conclusion, we think our concerns are very similar to Montana's. As state constituents we are asking the legislature and state departments to include our concerns with those of the states in further deliberations with the Federal Government agencies.

Thanks for your considerations and please do not hesitate to contact me at (406)467-2806 if I may be of any assistance.

Sincerely,

Ronald C. Ostberg
Special Projects Coordinator
Greenfields Irrigation District

Heisel, Leanne

From: Jack Kendley [guip@imt.net]
Sent: Thursday, January 17, 2008 2:33 PM
To: Heisel, Leanne
Subject: Reducing fire costs

I fought fires as a collateral duty with the Federal Government for 31 years, most recently a 26 year run on the Helena National Forest.

What I have seen evolving is more and more technology being employed, with reduced cost/benefit.

An illustration:

Thirty years ago if you needed 5 shovels, you grabbed a GS-3, sent him to the fire cache in a pickup and he came back with 5 shovels.

In the recent project fires I have been on the scenario is more like:

The generator is running to keep the semi air conditioned so the computers don't overheat. The need for five shovels is beamed to a satellite in outer space and relayed back to Earth and the fire cache. There someone grabs a GS-3, puts him and a pickup, and he brings 5 shovels to the fire.

Of course now there are caterers and shower units too. I have gone for 2 weeks without a shower fighting fire and eating freeze dried food.

It just seems like a big fire is an excuse to spend money as fast as possible, we say we are trying to contain costs, but are we?

Jack Kendley
2005 Hauser Blvd.
Helena, Mt. 59601

(406) 442-5706

Jack "Guip" Kendley