

NOTES AND AGENDA FROM AUGUST 1, 2002, MEETING OF THE
UNCOMPAHGRE WORKING GROUP,
Norwood Community Center, Norwood Colorado,
7:00 PM TO 9:30 PM, Co-Hosted by UP and GMUG

[Facilitator: Tony Cheng, Assistant Professor of Forestry and Natural
Resource Policy, College of Natural Resources, Colorado State University

Note-Taker: Carol Howe, Terrestrial Group Leader, GMUG planning team.]

Agenda [the following agenda was distributed as a handout]

6:30 Registration

7:00 Welcome/Introductions; Review of agenda and meeting objectives;
Review of last meeting/field trip

7:15 Panel presentations on prescribed fire, grazing, and logging by
resource specialists and users. Questions following from other panelists
and meeting participants.

8:00 Break

8:07 Panel presentations (continued)

8:45 Q & A from meeting participants on any/all of the management
tools

9:15 Wrap Up/Feedback form/meeting evaluation

9:30 What's next?

Next Meeting [the following meeting date was distributed as part of the
agenda handout; the meeting location was determined later in the week]:

Thursday, August 22, 2002, 7:00-9:30 PM

Norwood Community Center,
Norwood, Colorado

Upcoming Field Trip:

On August 10, 2002, there will be a field tour of the Burn Canyon fire.
Interested persons can meet at the Norwood Community Center at 9:00
a.m. to car pool. The tour will end up at house that didn't get burned,
where there will be a discussion about defensible space. The group will
return to Norwood by 1:00 p.m.

Meeting Objectives:

To share perspectives between resource specialists, users and interest
groups about current and historic uses of prescribed fire, grazing and
logging as management tools on public land.

Panel Discussion:

Resource users and specialists presented their views during a panel discussion. These panelists were asked to participate based on their interest/expertise and availability. Each panelist introduced themselves. Everyone at the meeting was provided with a copy of a one-page Desired Condition Statements handout which contained some representative statements (selected from the complete list) that relate to the night's panel discussion. A discussion framework (below) was given to panelists, containing questions that might not often be asked in a public meeting setting, but are what the Forest Service (FS) is grappling with:

Management Tools on the Uncompahgre Plateau

Discussion Framework for Panelists

The discussion framework is based on the Desired Future Condition statements developed in previous Uncompahgre Working Group meetings and synthesized by the Forest Service Core Planning Team.

- 1) Acknowledgement of the desired future condition statement.
 - a. What's missing? Should anything be added to this statement?
- 2) Do the current conditions on the Uncompahgre Plateau/landscape/communities reflect the desired conditions?
 - a. If not, what percentage does? Does not?
 - b. In which areas on the Plateau do you see a need for change?
 - c. On a scale of 1-10 (with 10 being high), how would you rate the magnitude of this problem?
- 3) What events/management practices have led to the current conditions being outside of a desired condition?
- 4) Which land management practices have substantially contributed to the desired condition in the past 20 years?
- 5) Which management tools need to be applied to improve the desired condition (or, to make progress toward achieving the desired condition)?
- 6) At what rate must tools be applied to make meaningful progress? (e.g., x number of acres per year).
- 7) Do you see obvious conflicts with potential desired conditions with other resources of socioeconomic conditions?
 - a. What can be done to reduce these conflicts?
 - b. What role do you see for public involvement in addressing these conflicts?

Discussing fire and prescription burning as a management tool were:

Dan Huisjen (BLM Fire Ecologist in Montrose, worked interagency with FS, Fire Management Officer in NM with BLM, and time with National Park Service [NPS] and FS)

John Moore (1 year as Fire Planner with FS in Delta; helping with implement the National Fire Plan [NFP], before that, with the FS in AZ, OR, and elsewhere in CO, and with Soil Conservation Service [now NRCS] in Cortez.), and

Andrea Robinsong (Audubon Society/Western Colorado Congress, worked as a seasonal employee on the GMUG 24 -25 years ago, worked for the NPS as Naturalist/Interpreter and Botanist, on Southwest Resource Advisory Committee [RAC] for BLM, offers a conservationist's view of fire).

Discussing grazing as a management tool were:

Floyd Reed (Range Specialist, FS in Delta, and Range Conservationist on Norwood District in previous life)

Joe Garvey (Nucla rancher whose business is to raise grass, runs cattle on 47 Allotment on FS and BLM and private land, brother is guide and outfitter), and

Stu Krebs (Public Lands Partnership [PLP]/Western Colorado Congress, from Montrose, family was in the sheep business, Geographer at CSU with interest in biogeography and bioclimatology, in 1990 took Holistic Resource Management course taught by Alan Savory and had his perspective broadened on animals and grazing; with PLP since outset, instrumental in getting UP [Uncompahgre Plateau Project] of PLP underway)

Discussing logging as a management tool were:

Tim Garvey (Silviculturist Ouray and Norwood Districts of the FS, most of career in Colorado, some in Arizona ponderosa pine forests, 9 years in SW Alaska, and MS) and

Phil Miller (worked for FS 28 years, retired in 1979, then 12 years field season on forest inventory, Peace Corps doing forestry projects [inventories and developing management plans for pine forests in Guatemala])

Fire Panel

Dan Huisjen:

(Item 1a of the Discussion Framework for Panelists): When looking at Desired Future Conditions (DFCs), he agrees with all of them. What is missing are the processes that will create the DFCs, whether they be management or natural processes, and how the processes will function to create desired forage, produce timber, or maintain/restore watershed conditions.

(Item 2) The Uncompahgre Plateau is not nearly at the level of DFCs: there are mule deer population declines; there is an increasing amount of woody species on the landscape; shrublands are moving towards pinyon-juniper (PJ); PJ and ponderosa pine (PP) are increasing in density; woody species are very dense and cover large continuous distances. When fires like Burn Canyon burn at night, it indicates there is too much vegetation (in woody species) on the landscape.

(Item 2b) PP and PJ need some changes. PP is very dense. Fires like Burn Canyon and Bucktail are going through untreated stands and killing all the trees. The fires burn more intensely through dense and continuous cover. Fire has the ability to open stands.

(Item 2c) On a scale of 1–10 (10 being high), he ranks the magnitude of the problem as high, at 8 or 9, maybe 10, based on the processes that are functioning. Recent fires are on a larger scale and more intense and destructive than should be seen.

(Item 3) Fire exclusion has been a practice leading to current conditions not being the DFCs. There have not been fires to knock back woody species. That's the biggest thing.

(Item 4) Fire exclusion, not just suppression. Anything that excludes fires: roads, past heavy grazing, changes ecosystem and fire hasn't been able to function as it normally would.

(Item 5) A variety of tools need to be used. In PP and PJ, fire alone won't do the trick—there are too many woody species. Fire would be too intense. We need to do mechanical treatments first, to reduce the amount of fuel, before a prescribed fire could be done. We saw this on the Bucktail Fire field trip. Past treatment areas slowed the fire down.

(Item 6) We could go whole hog for lots of years and not get where we want to be due to the magnitude of the problem. We need to treat many

acres with mechanical treatments and with fire to get back to a diversity of seral stages.

(Item 7) One [conflict] is the air quality issue with prescribed fire. We want to burn so many acres and it smokes out areas – that generates concerns. Another conflict is our ability to do the job. Is the industry there to help us out with mechanical treatments? Some operators have roller choppers that can help. Is industry strong enough to help us do what we need to do to get fire back into the system?

John Moore:

(Item 1) In reviewing the DFCs [on the meeting handout], it is obvious the group is educated on the issues. He would tweak the mule deer DFC to include all big game species, and elk and deer interaction.

(Item 1a) Echos that disturbance processes are missing. We need to ask if all process are in place and functioning. Early seral conditions are missing – management emphasis over the last 2 decades has been towards creating/maintaining late seral conditions.

(Item 2a) 30–40 % of current conditions reflect DFCs. On the public lands (Uncompahgre Plateau area is 1.6 million acres, 1/3 BLM, 1/3 FS, 1/3 private), six out of 10 acres probably have problems and issues to be addressed. In the dominant vegetation types i.e. PJ woodland (most extensive in US) 1 out of 3 acres have issues. PP is only 8% of the plateau area, but 38% on FS. About 53% of the PP has been harvested in the past. Those are areas that have had a lot of manipulation. We can't walk away from commercial forestry practices set in motion. Oak is 12% of the landscape.

(Item 3) Fire suppression lead to fire exclusion in fire adapted ecosystems. Grazing over the last 1 1/4 centuries has had implications on forest management. We harvested a lot of timber. The classical school of forestry used the regulated concept – sustained yield, primarily in the PP in this. We have heavily entered PP disproportionately over other types. Our paradigm has changed so we are looking more at ecosystem health. In the past, we planned initial entries and planned out other entries. As our [timber management] strategy has changed, we still have stands needing subsequent entries.

(Item 4) Prescribed burning, pre-commercial thinning, mechanical treatments are the way to go. They haven't been done in significant amounts.

(Item 5) We don't want to exclude anything from the tool box. Often the discussion goes to the tools versus the DFCs and how to get there from here.

(Item 6) On public lands, we want to manipulate 15%, approximately 150,000 acres on the Uncompahgre Plateau. On a ten-year rotation, that is 15,000 acres per year. That is not realistic. It is realistic to extend the time frame for 20 years, so 7,500 acres per year are manipulated. Past experience shows treatment costs average \$300/acre, or \$2.25 million per year. That's one reason to look at commercially viable cover types to defray costs of some treatments. We need to set some things in motion and break up some mosaics. Vegetation is fuel and arrangement and continuity of fuel is important and if we don't diversify, we have problems where we have large blocks of uniform fuel types. Superimpose drought and maturity issues and we have what we have been seeing this year in our wildfires.

Andrea Robinsong:

Conservationists care about conserving natural health of the environment and restoring it wherever possible. Human manipulation has a negative impact in many ways on the natural forest. She is so impressed with the way these meetings have been going. What people have been designating as DFCs are her DFCs and there are not controversies over these DFCs.

John talked about how mind-boggling it is to try to achieve simple goals. A simple goal is to look at the forest-human interface. Cedaredge is an example of an explosion waiting to happen.

Homes are in overgrown old stands. We need to emphasize to people how to prevent fire and use fire as a tool to prevent fire. We need to try to eliminate the intense vegetation where people have been moving into. Treating mature timber on the forest is more controversial.

Smokey has become a businessman. Only you can make millions preventing forest fires. Since the country got frightened and worked on the National Fire Plan, there has been a big pot of money to stop major fires from happening. Unfortunately, at the same time, firefighting got privatized and became big business. An example is the Hayman Fire camp kitchen.

The point is, it is so complicated. There is the human element. You can't blame people for trying to make money. That is not an evil thing. The bureaucracy is not set up to deal with all the logistics.

The things we want to accomplish are going to take so long. Everyone agrees fire can be a successful tool to fight fire. Much of the money put into the pot to start fires had to be taken out of the pot and put into fire suppression.

There is little thought given to how much fire suppression costs. Firefighters respond with whatever they can respond with, taking money that was supposed to be used to treat areas with fire and instead using it to fight fires. She wanted to point out how complicated the issues are.

Education is the long-term solution. We need to teach people how to prevent fires in the first place.

Questions and Comments on Fire Panel

The costs of fires are frustrating. We need to take care of firefighters. People are starting fires because it is a business step. People are starting fires because they have something to sell.

One of the things we are seeing in the western US, as we bring fire back into the system, we are seeing vegetation types we don't want to see - weed species. This will affect our ability to achieve DFCs.

Cheatgrass for example, after prescribed fire, mechanical treatment, or wildfire. If we have a disturbance and cheatgrass is in the area nearby, it will spread if the competition is treated. For the Burn Canyon rehabilitation plan in areas near cheatgrass at the lower elevation we will be seeding a lot of the land to have something to out compete the cheatgrass.

It will be difficult this year. We want to seed with a seed mix as native as we can get. We may have to settle for the same species but it may not be local. We are trying to get more local seed produced.

Average reseeding cost is perhaps \$15- 20/per acre. With the native species it is way more expensive. If we have to do multiple treatments it may be \$150/acre. It's still cheaper than spraying chemicals for the next 30 years. In Idaho and Nevada they have had an entire change of ecosystem with cheatgrass. It changes the fire regime, it changes everything.

There is cheatgrass in Telluride and some in Gunnison. It is moving into the area at other locations and elevations. It will be one of the issues maybe 20 years from now, as our vegetative communities are changing into exotic plant communities.

Commercialization of the National Forest, fire, recreation, and fee demo systems may be caused by political pressures in Congress. How should we work with that? Is it a bad thing or not?

If we are going to make government do all these things, government needs to be a lot bigger. [The government] doesn't have the capability to support large fire camps so it depends on the private sector. In the National Fire Plan, there's a desire to have a lot of efforts come out of the communities to get money into the local economies.

Past costs of fires were less. Current costs are high. Thoughts?

We [the government] are in the fire suppression business. We are in extreme fire behavior and have to protect firefighters. The only way to deal with extreme fire behavior is with aerial suppression. One way to get away from high costs is to look at the costs of treatments to prevent large fires. We can put a lot of management on the ground compared to doing suppression. We can do it with multiple entries. Fire managers often only have fire as an acceptable tool. Completely irresponsible to reintroduce fire without multiple entries and some have to be mechanical.

We need to educate the public that fires caused by lightning in areas that aren't populated aren't necessarily a bad thing. People are terrified by fire. We need to reverse what has been taught since they invented Smokey Bear. We need to teach that it isn't always necessary to suppress fire. That is what kept the Rodeo-Chidiski fire going. Past prescription treatment in the area was stopped. If it had been done, fire might not have burned down homes.

With our current situation, have to actively suppress all fires. We have limited resources to deal with fires. Now is not the time to argue about letting burns go. That needs to get into the planning cycle. We can't do it in a drought year. If we can keep fires small then we can keep them cheap and resources available for other fires.

The BLM lands on the Plateau are currently under a plan to allow letting natural fires burn. In early May we were beyond fire indices that would allow us to let fires burn. We need to be able to let fires burn.

Regarding the suppression discussion, if [fire] is in your backyard, you are not concerned with the cost.

We need to get up front with the money and get some of the fuels treated.

The BLM is ahead of the FS with their fire use plan. Want to compliment the BLM fire use planning.

Grazing Panel

Floyd Reed:

(Item 1) Agrees with the DFCs. The key is to have an integrated approach to whatever we are doing. Nothing happens in a vacuum. We need to think in terms of interrelating and using different methods to enhance each other.

(Item 3) Grazing can be detrimental, neutral and beneficial. Animals tend to be neutral. [Humans] can influence their behavior.

(Item 4) We have many examples on Forest where livestock have been used to treat the landscape. Mule's ear is a native plant that should occur in limited amounts < 5%. If disturbed (as happened in the past) mule's ear is very competitive and will move in and become stable. You can use cattle to graze mule's ear the last of June or first of July. If you hit it and get off, it is greatly disturbed before flowering. Root reserves have been depleted and other perennial plants have a chance to be competitive. You do this over many years. It is better than 2 quarts of 2-4-D to the acre, which also eliminates other forbs and insects and hummingbirds. Nothing is forever. Natural plant communities are dynamic and change fast. It's beneficial to come back to an area to review past treatments---you can see how many species have disappeared.

(Item 5) Some plant communities get into a stable state and it takes a great deal of disturbance and energy to get past the stable state. For example, Kentucky bluegrass can be in a stable state. To get rid of it you have to infuse energy and disturbance, plow and reseed. In riparian areas, to improve water holding capability of sedges, you can migrate desired riparian plants into bluegrass and choke it out with desirable plant species, resulting in raising the water table. There are areas needing change -it is not all bad; but most plant communities are not stable and need some help. One benign thing is planned grazing that can influence the vegetative community over a short period of time (i.e. 10 years). We

don't want to be using herbicides or fire next to habitations. Maybe grazing is an alternative.

(Item 6) We have to be realistic about what we can treat. There is 1.6 million acres on just one landscape on the Forest. Of the 1.6 million acres, half can't be accessed. If you do the math, maybe 7000 acres a year is realistic, unfortunately. Several years ago if you summed up the planned projects on 4000 acres the biggest treatment was 173 acres. Treatments need to be big enough to absorb the animals that will be responding to the treatment. We shouldn't approach any project less than 1000 acres. We would like to see 10,000-acre projects. The BLM planned a 15,000-acre burn with a helitorch. They burned half of the project area over a variety of conditions, over a week.

Joe Garvey:

Things have changed on his ranch, away from group think to thinking out of the box. He likes to read the [Pharo Cattle Company] newsletter, (which he distributed as a handout). He likes #3 - Successful ranchers work smarter, not harder, and #7 - Successful ranchers know who to listen to. They may be doing everything right but not doing the right thing.

(Item 1) His family works under the Holistic Resource Management (HRM) model. Quality of life, quality of cattle and quality of range work hand in hand. Take one away and the others fall apart. Since they began rotating pastures, splitting pastures and using electric tape, the grass is better. The more pastures, the more options. This has helped out this year. They are moving cows to places they don't like, hauling water to move them so they don't damage other areas.

Under aquatics, this year is the biggest year they needed to have ponds cleaned and wished they had more cleaned. They have put more effort into water than into fences. With fires, they need more adequate water storage. There are things that come out of a drought that help people out.

Under Human Dimensions, we need to educate the public to pack their own trash out. They are always packing out others' trash.

Emphasis is on mule deer, but somehow we need to put some emphasis on the elk. He would like to see Unit 62 go into a draw area so elk would disperse from both sides of the mountain. The Divide road is like the Berlin Wall. There are more hunters on the east side, less on the west and more elk on west. He wants to see elk dispersed more evenly. Mule deer have been coming back since regulations went to draw only, state-wide.

They are now seeing larger bucks. There were some economics effects: less hunters, less money, but on the other hand deer are rebounding.

(Item 5) In our country, we can help out things in the PJ with prescribed fire and roller chopping. Cows and deer and elk pass through the PJ because there is not much forage. We need to open up some areas to increase the grass. HRM has helped us move from overgrazed conditions to improved conditions, using electric tape and fencing. It has helped create open space we all want. Hoofed animals could be used as seed planters, cheaper than roller chopping. They are looking at using cattle as a tool. The best thing the rancher has done is listen to other people.

Told a story about a mother who cut off both ends of the ham and set them aside. When asked why, she said it was the way she was taught. They called the grandmother to ask why, but she didn't know the reason. They called three generations back and found that the reason everyone cut off both ends of the ham is that the Great-Great-Great Grandmother didn't have a pan big enough to fit a regular size ham. Lots of times we do things because it's the way it was always done, but it may not be the right way.

Now ranching is working with multiple use, sharing with lots of other users and resources and they want to see cattle use on the mountain for a long time.

Stu Krebs:

He is wearing the conservationist hat. He feels like part of the choir. He has heard much that fits with the conservationists' point of view.

He wants a bumper sticker – Grazing happens, to emphasize that grazing, like fire and logging, is a process. They are all processes that can be used as tools, but they have also been operating a long time. The way grazing was used in the past is responsible for some of the problems we are currently dealing with.

Keeping these things in mind as processes fits in with what was heard tonight. It is important that we keep nature as the measure, the thing we keep looking back to as we engage the use of processes as tools.

This fits in the HRM model. HRM keeps broadening views on things. It uses nature as a standard of measure. When you start, assume you are wrong, work hard to make it right, assume that your knowledge of the

ecosystem is incomplete. One cubic inch of soil has lots of processes we don't understand. We learn each time we go through a process.

Look at the diversity DFC and the Human Dimension DFC. In diversity, we talk about plant and animal species. For example, a researcher in Africa looked at large areas and thought it was important to have diversity in landscapes regarding the amount of human impact. Different development areas (urban and rural towns), then move into landscapes that more closely resemble the original natural ones, then move into areas where the human impact/imprint has been less. Important to have these last areas.

Many people come to Telluride, because we still have this wide diversity of landscapes. It is important to keep in mind that we would like to have some areas at the far end.

There is lots of restoration to be done. Money and other resources are limited. For example, the West Elk grazing pool has had an intense grazing strategy and been closely monitored. They are finding that things are getting better. There are still a small number of permittees doing some of the things we have been talking about. We have an opportunity to tap the restoration process so that most of permittees are doing what we have been talking about. We have a chance to make enormous improvement in the ecosystem through grazing. We have a teachable moment (due to fire, drought). If it is not too clumsy, we can use the present to teach on restoration opportunities.

Questions and Comments on Grazing Panel

Things have changed in grazing since the past. How many Joe Garveys are permitted on the Plateau?

There is only one Joe Garvey. Five to six permittees are operating under HRM. You make progress with peer pressure and doing by example. In Paonia, what we have learned has rippled out. We get calls from all over to talk about the West Elk Pool, for example. This is something that's time has come.

Joe Garvey: On some areas of range there has been struggling with and warring with FS. We are trying to stick with HRM, through the cycles of drought and rain. Floyd started us back 20 years ago with lay-down fencing, which cut fence maintenance time. HRM will be the way of doing

business. Some people have had pressure from the way their range looked and it is the way for people to stay in business.

One point from HRM – sometimes the hardest person to talk to is your next-door neighbor. He may be mad about neighbor's success.

Floyd Reed: We are in a drought of epic proportions – lots of county looks tough. This country survived the 1910s, 1930s to 1950s and came back even without the benefit of good management. In this drought riparian areas have been grazed beyond standards but the plants have responded. After drought, the country will recover faster than in the past.

Does a HRM operation take more man-power, or function within limitations?

Since we started HRM we have gone from 3 brothers with outside jobs to 1 _ on the farm. We are hoping it will pay off. The better we treat the country the better we treat our lives. It's more of a sheep herder mentality, keeping cattle bunched, getting better utilization, and letting the area recover. We wish elk would move with the cattle, but elk are coming in after the cows and we have to figure that into the equation.

We talk about optimization versus maximization. For example, is it more profitable to raise a 600-pound calf versus a 400-lb calf and the cost of supplements. In the past we usually weaned at the bottom of mountain. Maybe it is more profitable to wean earlier and sell off earlier than to feed hay later into the year.

Will it take 20 years for others to take up to the Garvey model?

Most are on their way. We have yearly meetings with FS and BLM and throughout the year. His family has a history on the 47 Allotment since the beginning of the last century and they want to stay there. It is a give and take. Every time we give, it seems to help out the range with less conflict. What about pairing of grazing with fire as management tools, in what situations are they complimentary? We heard about PJ systems. Are there other ways to help move this landscape towards DFCs that are cost efficient?

Above Camel Creek drainage, on private, BLM and FS (wish the barrier between agencies didn't exist – doesn't mean anything – all ground needs to be managed together), last year 4-500 acres of prescribed burn was planned – 100 acres were actually burned. The Sierra Club in Moab

addressed letting natural fires happen (can't do that this year). Hope that we learned a lesson that on good years we let fires burn small acres.

In Dry Park the area was chained in 1963 and we didn't change grazing and the herbaceous species didn't recover. Fifteen years after the chaining we lost the grass. We recently burned the area, reseeded it and then changed grazing to perpetuate a herbaceous plant community (shorter grazing season, allowed recovery and no fall grazing). Regrowth was available for big game. It gets down to identifying the desired condition and ways to address it.

Another example: on the Nebraska NF in grouse nesting habitat (depends on height and density of vegetation). We identified the nesting pasture for next year this year, grazed it lightly, early, then allowed regrowth. Next year the habitat was suitable for grouse and we had no grazing. We used a prescribed grazing treatment to benefit grouse nesting habitat. We prefer to use natural processes versus chemical or high tech. They work better and they are cheaper (free).

How to integrate fire and grazing – you see wildlife and cattle move through PJ because forage is no longer available. If we could open up PJ we could provide forage and save some of the lower and upper landscape. This would also improve watershed.

Logging / Timber Management Panel

Phil Miller:

His talk doesn't deal with the discussion framework. This talk is on linkage between logging technology and forest management and how the two have influenced each other.

He can divide forest management, or lack of it, into three eras (over 53 yrs or experience)--sustained yield, forest exploitation, and restoration. These apply to all Rocky Mountain forests as well as the Uncompahgre Plateau because of the centralized control the FS is under.

In 1946 on the Rio Grande NF, he marked spruce/fir (SF) for selective harvest. Selective harvest governed management until the 1960s. You cut some but not all according to principles of sustained yield, leaving some of the best. Sustained yield harvest would not exceed annual growth.

In the late 1940s and 50s trees were cut with crosscut saws, skidding was done with horses, there were portable mills in forests. Logs were 16 feet

long. Some clearcutting was done in lodgepole pine (LPP), but not like today because horses could override a pole size tree.

The exploitation era began in 1960. He marked out clearcuts, some > 100 acres. The logging contract introduced industrial logging technology: rubber-tiered skidders, D-6 cats with blades.

The results was destruction of the forest, leaving logging slash that had to be piled and burned.

This resulted in soil impoverishment because so much organic material was removed in slash.

The era of Restoration, is where we are today. The object is achieving forestry for restoration, not for profit. Other values are wildlife habitat, CO sequestration, to protect soil, provide clean water, aesthetics and other useful things. This is a change in concept from the value of forests for commodities to other values that may not have dollars assigned.

Some methods used would be prescribed burning, thinning of dense stands and use of small diameter trees. Logging would be done with small logging equip, D-4 cats and horses, Treatments would be financed by public funding like during CCC. Contractors would bid the lowest price to do the work versus the highest price they could get for a product.

He proposes a step back in logging technology to technology from a technology of forest destruction, to a technology that will restore the forest. Small logging operators can enter the market because they won't need the capital to buy equipment. It would open the door for small industry to utilize small diameter materials.

This is the time for proposals in the management plan to correct the wrongs that have been done to our forest.

Tim Garvey:

Acknowledges that the FS focus has changed. There was a time when the agency was governed by commodity output targets. Focus was on what there was to take, not what was left. Change began in 1988 when focus shifted from outputs to what was left - forest structure. Forest structure to a wildlife biologist is habitat.

He went over the elevation zones on the plateau and addressed the framework.

– Pinyon/Juniper – stressed vegetation types probably from fire suppression. PJ appears to be overly dense forests, stress is expressed in a condition called pinyon decline, which affects just pinyon. It is a root disease which weakens/stresses the tree and bark beetle attacks and kills the tree. That is common across the plateau.

– Ponderosa Pine – as a result of harvesting, past harvest practices, grazing and fire exclusion, have a changed this forest. It is not what we would have seen at the turn of last century. There is a preponderance of overstocking of trees <100 years old. Big trees are gone. There a few places where your can see old forests. Timber harvest or thinning in most cases is warranted before we can go in and burn. As those stands are older (80 yr) we can't get a fire that you can control to thin the stands. It will kill the trees with an intense fire. We need to do thinning, or pre-commercial thinning. Some trees 22 inches in diameter at breast height (dbh) need to come out. Other reflections of the changed conditions in PP – mountain pine beetle outbreak in Ute area in the late 1980's resulted in significant mortality. It set things back into grass forb communities. We have been doing some planting.

– Aspen – there was little harvest prior to Louisiana Pacific opened in the mid 1980s. Since the mid 1980s, 6% of the aspen cover type has been harvested on the Uncompahgre Plateau. Aspen, unlike PP and Engelmann Spruce (ES), is pioneer species. It is short lived. 150 years old is ancient (150 year old PP is a young adult). Eighty-percent of the aspen stands on the Uncompahgre Plateau are over 80 years old. What happens to aspen is that it declines in vigor, becomes more susceptible to diseases, and the stand begins to die out. Aspen succession is not always linear. Some stands self-perpetuate, others may go to conifer (SF or PP), depending on the site, as they fall apart. Aspen can go to oak and meadow as well. It has complex succession.

– Spruce/Fir – is the smallest vegetation type (in number of acres) on the plateau. It has been hit hard by past logging. Much of what was old growth is gone. The existing forest is young (relatively speaking). It is often associated with aspen. Aspen implies a more recent disturbance history. If you have old stands of SF, aspen tends to drop out with lack of disturbance from fire, windthrow, or bugs. Timber harvest in the older stands has affected the structure. We have lost standing dead and larger diameter trees have been harvested. The SF that bothers him is along the Divide Road between Dave Wood and Transfer Road. There the SF has been hit hard by the spruce budworm over the last 12 years. There is lots of dead spruce which is a source of fuel for fire. He would like to see,

maybe as a partnership with UP because it would not be a commercial venture, removal of dead material and some non-commercial thinning to create visually appealing, less flammable area along the Divide Road to serve as a break for potential large fires on the west side of plateau.

(Item 3) Current condition of the plateau and what events and management practices led to the conditions being outside the DFC. What role did the logging play?

- Pinyon/Juniper - we are outside of the DFC due to fire suppression/exclusion. Treatments of BLM and USFS are trying to punch holes in the continuous cover.
- Ponderosa Pine - thinning commercial big or small trees is important to do. You can't run fire in current conditions. We have a glut of early mature and have a lack of older pine that were here historically. What can management do or silvicultural treatments do to get the big trees back?. Don't cut any more big ones. Thinning will allow remaining trees to grow better. A commercial product flows from a treatment to achieve a structural goal. Fire does things to trees that are important long-term. Trees subjected to fire repeatedly pitches out. When that tree does die it persists virtually for years and we get high quality snags. A tree of the same size without repeated fire exposure ,when tree dies, does not persist.
- Aspen - is probably the most okay. Most of the aspen is in the 120-year age class (78%). We have been regenerating through clearcutting to increase the younger age classes. As older acres age, they will start to decline naturally or we could regenerate through clearcutting. Clearcutting as a management tool is a success. Aspen clearcut does look bad, there are some ecological considerations as well.

Questions and Comments on Logging/Timber Management Panel

You mentioned 6% of the aspen cover type has been cut on the plateau. How much of the merchantable stands of aspen have been cut, and how much is seral and how much is climax?

Climax aspen is aspen that would succeed to aspen if cut or burned or declined naturally. Seral aspen means it is a visitor on the landscape and will be followed up by some other plant community, usually spruce/fir and PP.

We don't have the data on the number of acres in each kind. When we visit stands we determine that. . [NOTE: CSU is currently evaluating the

status of the aspen cover type on the Uncompahgre Plateau, to determine where there is risk of losing aspen dominance.]

Ecosystems don't need us for their perpetuation, we need them for what they offer. Aspen doesn't need us.

How much communication are the Ranger Districts doing to look at the landscape to develop timber harvest?

We haven't done this in the past. That is why we are doing a landscape assessment now and doing Forest Plan revision on a landscape scale

Succession is a function of site, disturbance, and weather in which the disturbance occurs. It is a function of the stand condition, as well. In Clear Creek and Hanks Valley there are older stands of aspen with lots of root disease, lots of down and dead and no seedlings replacing the stand.

Clearcutting, fire or intense disturbances can stimulate stands like this that otherwise might not occur. A stand going from aspen to some other type is not necessarily bad.

For example. McClure Pass and Kebler Pass have aspen from a fire in 1879 and 1880. Aspen stands are rapidly changing to conifer. It comes down to a desire of society. Do you want color tours in the fall or a monoculture of spruce /fir. Historic photos show standing spruce snags after the early fire. We are into the period of achieving a desired condition that society wants. It is a function of values – what do we want to do.

(Stu Krebs) We should look to nature as the measure. We are trying to do that supported with the ongoing studies. If we could get the forest back to the historic conditions, the assumption is that those forests were intact and resilient and functioning.

Need to look at where people fit in the time and special value system. It is not just our vision. The problem with the DFCs is they imply we are designing the environment. We need to be humble in our place in this planetary cycle. We have a vision of fall colors, but maybe we are miniscule.

We have an opportunity to see effects from Louisiana Pacific. Clearcutting doesn't seem to be successful. If Louisiana Pacific wasn't here, we would have had natural disturbances. [Uncut forests] seem to be healthier

forests with birds and frogs and insects and mushrooms. When you go into clearcuts, they are still not regenerated as a forest.

In Goat Creek, 560 acres of clearcutting occurred in the 1970s. People who commenting on the recently proposed Goat Creek timber sale during scoping called the clearcuts pristine.

Management of aspen is a very important topic. The DFC for aspen is one that is in question. The idea is that the range of perspectives will be carried into the assessment. Now that there is a change in conditions economically and biologically we can now look at different situations. If you have to thin dense stands, most will be pole size 9–11 inches in diameter. We need to develop some kind of small diameter industry. Politically, sales will be sweetened up with the big trees and then you won't get the small trees removed. Is there a move to develop industry to take small timber?

Louisiana Pacific was able to take some pine. A speaker at the last meeting said they can utilize small diameter material. Operators have retooled to be able to take the smaller diameter material and are doing restoration work. If that happens that will deal with the problem of the smaller trees. Up through the 1970s there was no market for the small diameter material.

Current situations are inherited from past forest practices. The age class distribution in aspen is a result of a pulse in the system – grazing, logging and fire suppression were all set into motion at the same time. We want to put new pulses into the system to get a more diverse distribution of ages. We need to reintroduce the pulses. It takes a lot of energy to shift these systems. We don't have lots of options for first and second entries without some dramatic intervention. Aspen is an excellent community to look at because it is short-lived, because of the habitat. If we don't do something to perpetuate it, it declines, we could lose lots. If you like aspen and you want to perpetuate aspen it will not be easy to do long term.

There are a lot of people who are interested in aspen and don't know much. Is there a way we could have a meeting just on aspen here?

(Daniela Howell) Yes.

CSU held an aspen symposium in Grand Junction in 2000 to gather the art and science of aspen in the Rocky Mountain states. There is lots of concern about aspen. In some places it is doing fine, some static, some

decline. On the bioregional scale we have to figure out what is happening.

On the Lone Cone, aspen was logged in mid 1960s. Plant communities recover and change. It would be good to revisit those areas.

The PJ woodlands are probably the most endangered overall plant communities in the west. They are all late seral. They are waiting for some stand replacement event. We have weeds that we cannot deal with the consequences. PJ - 65% of the stands on the NW side are late seral and only 2% early seral, skewed out of the normal range.

We haven't talked about the effects of grazing. Aspen stands are being affected by the grazing.

We saw cattle effects on Lone Cone clearcuts. Stands with no reproduction have damage caused by livestock and elk. Elk, wildlife and livestock have impacts on regeneration success. We have begun installing exclosures in all clearcuts. Some exclude cattle, some exclude cattle and elk. It is too soon to tell conclusively but elk seem to be more of a concern than cattle.

PLP and with the UP are trying to put together a workshop for the small diameter stuff. How we can develop the industry. If people have ideas or are interested, get in touch with PLP.