

Societal Influences On Prescribed Burning

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ABSTRACT

Although many resource professionals believe that periodic fire is necessary to the health of fire-adapted ecosystems, prescribed fire exists only because society allows it. Society has given fire managers the authority to determine if, when, and how prescribed burning takes place. In exchange, it is incumbent upon fire managers to respond to current and long-range societal desires. They must evaluate alternatives without personal bias, make decisions based on imperfect knowledge, and effectively communicate the whole process to the public. Only a small segment of the population is interested in fire management policy, and that segment is itself made up of even smaller groups holding potentially divergent positions. The vast majority of the public is not interested in fire management unless it is responding to an event or issue that it deems unacceptable. The public generally does not become confrontational unless it perceives that managers are not sensitive to its desires. This reacting public is likely to respond with emotion rather than reason. In such cases, fire managers must compromise. We therefore must not only continue to cultivate our relationships with small pro-fire segments of the public, but also intensify our efforts to reach the vast uninterested majority to ensure prudent management of our natural resources.

INTRODUCTION

Many fire managers perceive societal influences on prescribed burning as negative, constraining, often unnecessary or unreasonable. Why are our perceptions negative? Because the system of public reactions is largely a negative one. Weber (1991, p.13) points out that Americans traditionally view the proper role of government as a negative one, "to protect against threats and evildoers." The general public remains complacent unless it is responding to an event or issue it deems unacceptable. It then manifests its collective desire to correct the perceived wrong.

Who is this "general public"? Basically it is just an extension of ourselves; public opinion is what people think other people think. Our thinking is constantly influenced by facts, perceptions, and emotions. Sociologist Robert Bellah et al. (1985, p.150) stated "We [Americans] insist...on finding our true selves independent of any cultural or social influence...while [spending] much of our time navigating through immense bureaucratic structures...manipulating and being manipulated by others." Special interest groups incessantly bombard us with information of questionable validity. It is often difficult to separate truth from illusion.

Yet each of us has to mentally filter these signals, reach a conclusion, and voice our opinion. If we do not, we are likely to be faced with deserved unfavorable outcomes.

Take, for example, the 1988 Yellowstone fires which covered 44 percent of Yellowstone National Park. They have been referred to as "the most significant ecological event in the history of the national parks" (Schullery 1989 in Manfredo et al 1990, p.19). Extensive national TV coverage and articles in Newsweek and the New York Times helped raise prescribed fire decisions to national prominence. They prompted vigorous debate over fire management policy, the competence of management officials, and the integrity of the entire philosophy of wilderness management (Manfredo et al 1990). The end result was that the authority to use prescribed fire waste temporarily rescinded on all national parks and wilderness areas.

Another example occurred earlier this century and involved federal and state policies to exclude fire from southern pine ecosystems. One lesson fire managers should have learned from that experience is that facts sometimes have little to do with being politically correct. In the public arena, perception often is reality. That longleaf pine evolved

and reached its dominant position under a regimen of frequent lightning fires was deemed irrelevant. The significance of this fact was downplayed to the general public. So was the fact that the ambivalent relationship between southern ecosystems and fire was understood and utilized to achieve numerous objectives by both the Indians and the Europeans who displaced them. Most foresters familiar with southern pine advocated a fire-free period to get the South's 2nd Forest established, but these recommendations often were altered to mean fire exclusion. The press sensationalized and exaggerated the detrimental effects of damaging wildfires, implying this damage was a feature of all fires. Rural southerners were characterized as unlearned and backward, people who "didn't know no better" and who obviously needed guidance. The fact that fire exclusion had to be force-fed to them simply proved how ignorant they were; they could not even recognize the obvious benefits of such a policy.

Examples of tracts of land set aside to perpetuate a southern pine landscape which has all but disappeared in subsequent years because of fire exclusion can still be found. Prescribed burning programs are being initiated on more and more of these holdings because of public pressure and because some of the areas contain rare and endangered species such as the red-cockaded woodpecker whose chances for survival can be improved through the judicious use of prescribed fire.

The longleaf pine ecosystem is currently facing another crisis. The land base of this once vast ecosystem is disappearing at an alarming rate (less than 4 percent of the original 60 to 90 million acres remains in longleaf). Since at least the early 1970's, immigration to Florida has averaged more than 1,000 people a day. A seemingly insatiable demand for single-family homes in the suburbs and the attendant network of highways has displaced the natural landscape. Moreover, fire and smoke generally are not welcomed along the urban/wildland interface or along transportation corridors. This, in turn, makes it that much more difficult to perpetuate remaining fire-dependent wildland areas. Problems range from the nuisance variety such as ashes in swimming pools, to more serious considerations such as traffic hazards and the threat to life and property from escaped fire.

Is it inevitable that society will eventually prohibit prescribed burning and thereby relegate perpetuation of this ecosystem to chance wildfires? It could happen, but in my opinion only if we fire managers abdicate our responsibilities or carry

them out in such a manner that we alienate the public. Society has given us the authority to determine if, when, and how prescribed burning takes place. To keep this flexibility, fire managers must be responsive to current and long-range societal desires. The public generally does not become confrontational unless it perceives that we are not sensitive to its desires. In such cases this reacting public may well speak in a unified voice and is likely to respond with emotion rather than reason.

At any given time, only a small segment of the general populace is interested in fire management policy, and this segment itself is made up of smaller groups holding potentially divergent positions. Fire managers must evaluate the espoused needs of these groups, and select and implement courses of action that are practical, have an acceptable probability of success, will produce a neutral or beneficial result to society, and that are biologically sound. Fire managers should endeavor to make sure these groups are well informed, and work with them to make sure their constituencies in turn receive an accurate, balanced picture.

I suspect we all have heard some harassed fire manager mumble that his/her job would be straightforward if it were not for the public. It makes little difference whether the fire manager works for an agency or private landowner, for what he or she does will have both on- and off-site effects. We may own the land from a legal standpoint but we are only temporary stewards. Weber (1991, p.15) points out that "private ownership means stewardship or trusteeship, not the right to do whatever one wants." Land ownership carries with it a social responsibility. It is incumbent upon our generation to manage natural resources to produce the benefits society wants while ensuring we also perpetuate these resources for future generations. Natural resources are renewable only if they do not become extinct. This fact alone is reason enough for society to take an interest in fire management. In fact, society not only has the right but also a responsibility to influence fire management.

It is imperative that fire managers come to grips with reality. Although resource managers and ecologists, to name two of many groups, may recognize the need for and advocate the intentional application of fire, the practice of prescribed burning exists only because society allows it. Society may be willing to compromise its desires once it fully understands prescribed fire and its ramifications, but if an impasse is reached, fire managers, not society, must compromise. Furthermore, the

needs of society are dynamic, not constant, and as society's needs change, fire management must change to reflect these new desires.

Ultimately, society will determine the fate of the longleaf pine ecosystem. To make sure this decision is an informed one, it is incumbent upon fire managers to delineate without bias, and to the best of our professional ability, the tradeoffs involved in maintaining this ecosystem against the inevitable long-term result of fire exclusion. Should society decide that perpetuation of this ecosystem is appropriate, fire managers must demonstrate that they have the ability to maintain this ecosystem. It will not be a question of whether or not to use fire, but rather of how to use it--at what interval and season. Research, however, has yet to provide answers to many questions regarding management of this ecosystem. But as stated by Christensen et al. (1989, p.685), "...management is required even when knowledge is incomplete, managers must also recognize that it is possible to narrow the choice of purposes, to contract the range of ambiguity surrounding objectives, and to shrink the domain of ignorance. Many unknowns can be reduced to uncertainties and uncertainties to probabilities."

I think the public can be convinced that we can use fire in a safe and responsible manner, minimizing any adverse impacts to them, while at the same time accomplishing desired resource objectives. But to succeed will take patience, hard work and continual effort. I recently watched a public relations video that said "The public doesn't care about our problems. If you are good, you are good, and prove it. If you are bad, you are bad, even if what you are doing is legal" (Oppix & Hider nd). We fire managers must be the "good guys." We must develop a positive image if we are to succeed. The Basic Prescribed Fire Course taught by various State agencies in Florida addresses this subject. It lists the ingredients of a positive image as follows: 1) Attitude as demonstrated by friendliness, energy, openness, and positivism; 2) Professionalism as characterized by honesty, knowledge, competence, personal demeanor and habits, training and fitness, and; 3) Equipment and tools which are functional, modern, clean and safe. We must portray the image of an individual who is trained and competent, a professional, a protector of the environment. Fire managers must develop the image that they enhance, protect, and nurture the ecosystem. We need to develop the reputation that we are experts in protecting and perpetuating the longleaf pine ecosystem. As prescribed burners, each of us will be ultimately judged as a destroyer or preserver of

the environment.

Mount (1989) reminds us that "FIRE" is one of the most alarming words in our language. For most people, the mental image of this term was imprinted at an early age and is equated with danger, destruction, and Hell. Society's attitude toward fire likely depends upon whether this initial impression was reinforced or whether it was counterbalanced as the child grew older. As the population shifted from hunter-gatherers to ranchers and farmers, and finally to city dwellers and vacation home owners, these counterbalances were no longer learned. To most urbanites, wildland fire is bad *per se*. We must allay those fears by convincing the public that fire is in good hands with us. Thus, we should be very careful when showing fire because we do not want to elicit negative reactions as the killers of plants and wildlife. We should discuss the concept that individuals must sometimes be sacrificed for the benefit of the community as a whole. We should emphasize that prescribed fire increases food and favorable habitat for many animals. We should concentrate on the before and after, and on differences between prescribed fire and wildfire.

To effectively communicate our position to the general public, we must believe that fire truly is an integral and inseparable part of the longleaf pine ecosystem. A working knowledge of, and appreciation for, the close association between fire and this ecosystem is a prerequisite. We must understand and become conversant with the knowledge transferred at this conference. We also must recognize that presenting the facts is not enough. As someone said: "If the facts were always clear, we would not need 12 people on a jury." Manfredo et al. (1990, p.23) summarize the situation as follows: "While biological information may provide support for a prescribed fire policy..., that alone is not sufficient justification for its implementation. Fire policy has a critical sociopolitical component... Because national attitudes differ widely, policy-makers face major hurdles in establishing fire policies that will be approved by a majority of the public. This provides a challenge to managers as they focus educational efforts on a better understanding of the effects of fire and fire policy."

ISSUES TO ADDRESS

We should go beyond the narrow philosophy that fire is just "a disturbance factor" and instead promote its role as an ancient and integral part of

the longleaf ecosystem. In other words, we should emphasize that fire is a necessary process in the maintenance of the longleaf pine ecosystem and not simply a management tool. As pointed out by Vogl (1979), when we speak of fire as a tool, we imply that it is only one alternative among several that can be used to accomplish a given task and that we can simply substitute another management activity to produce the same outcome. This is a gross oversimplification. Ecosystem dynamics are exceedingly complex. We are a long way from fully understanding them. Although similar results can be mimicked by other treatments, the full range of processes and reactions that recurrent fire initiates, terminates, and continues can not be duplicated by any other disturbance mechanism (Vogl 1979).

We should explain that the plants and animals present today have survived thousands of years of human ignition and that in some places where this practice has ceased, certain plants and animals have become extinct. The use of fire to accomplish desired objectives is not something devised by modern man. Certainly we have refined, and continue to refine prescribed fire to better meet our desires. But, fire is a natural process that played an instrumental role in shaping the vegetation mosaic of our planet long before we humans got involved. We should take every opportunity to show the interested public long-term demonstration plots where they can see the consequences of various burning regimes and fire exclusion on fire-adapted ecosystems such as those characterized by longleaf pine.

Mount (1989) recommended several specifics to address when clarifying the relationship between prescribed fire and wildfire: (1) Quantify damage in dollars and add it to the firefighting bill. (2) Determine the income lost because of the resources lost from wildfire. (3) Widely publish the full costs of wildfires. (4) Quantify and publish the dollars saved by hazard-reduction burning. (5) Generate debate about responsibility for wildfire effects and other deleterious results of fire exclusion.

Descriptions of fire effects often include terms such as pollution, erosion, eutrophication, destruction, damage, reduction, and death. Mount (1989) reminds us that such words appear to judge a fire's effects as negative from a human point of view. Fire is not inherently good or bad, but, it is an agent of change. Unburned, burning, and burned landscapes are all just part of an endless natural cycle.

WORKING WITH THE PUBLIC

Although we never should underestimate the intelligence of the public or overestimate its knowledge, the public has difficulty interpreting complex scientific data. Shea (1989) points out that problems regarding implementation of fire management objectives can be complex and often involve use of a specialized vocabulary which makes it difficult for an "outsider" to understand the rationale for different methodologies. Part of the solution is to recognize that communication is a difficult and complex process. Different groups are interested in different aspects of fire management. We must use as many avenues of communication as possible and not be afraid to repeat our message over and over again.

Benjamin Franklin had some sage advice fire managers would do well to follow as we cope with the task of attempting to change public attitudes toward fire: "The way to convince another is to state your case moderately and accurately. Then scratch your head, or shake it a little and say that is the way it seems to you, but that of course you may be mistaken about it; which causes your listener to receive what you have to say, and as like it or not, turn about and try to convince you of it, since you are in doubt. But if you go to him in a tone of positiveness and arrogance you only make an opponent of him."

One common problem is the fact that members of the community who desire to influence fire management policies do not have to bear the consequences of that decision (Shea 1989). Give these people a share of the ownership of policy by involving them in its formulation. This tends to modify extreme positions that might otherwise be taken, and reduces polarization (Shea 1989).

Managers must join hands with society to collectively manage our natural resources. We must approach the public without mistrust or stereotyping. Llewellyn (1989) suggests that one solution is for participants to see themselves as working side by side to attack a common problem and not each other. Make an effort to put yourself in the shoes of opponents and try to appreciate their perception of the problems. Identify those who are interested in, or critical of prescription fires and ask them to help monitor both wildfire and planned burning effects. Listen carefully to informed critics and share fire problems with them.

To make this education process easier, Mount (1989) has three suggestions: (1) Introduce fire edu-

cation at the grade school level, making a clear distinction between wildfire and prescribed burning. (2) Promote a balanced presentation of fire in botanical and natural resource management courses at the college level. (3) Explain fire ecology to visitors at local, state and national parks where prescribed fire is employed. When the public is exposed to prescription burns first hand, misconceptions often can be corrected through signs and discussions with employees. This is one reason it is vitally important to make sure all employees are well-informed, and understand the objectives and underlying rationale for prescribed burning.

SUMMARY

The ball is in our court. We can take a passive approach and simply defend the intentional use of fire. The outcome, in my estimation, will be a society that makes uninformed decisions. Or we can take the initiative and actively promote the judicious use of prescription fire. Three broad topics that should be included in an active approach are: (1) expand our knowledge of fire, (2) use it properly and discipline ourselves when we don't, and (3) generate a three-pronged information campaign aimed at legislators and key leaders, the general public, and local public. In the words of Abraham Lincoln: "public sentiment is everything, without it you cannot succeed, with it you cannot fail."

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