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# Where There Is Fire, There Is Smoke: Prescribed Burning in Idaho's Forests

## I. Introduction

America's forests are beautiful and productive places, and thus, the country dedicates many resources to their preservation. The preservation of the nation's forests requires the involvement of many different groups of people. Politicians have taken an active role in caring for our nation's forests, as shown by President Clinton's leadership of the 1993 Forest Summit, which was held in Portland, Oregon.[1] Similarly, scientists, like those at the U.S. Forest Service's Shrub Sciences Lab in Provo, Utah,[2] play a large role in the development of forest practices. The general public also has a role to play because governmental policies and scientific studies have little real effect unless they change the behavior of the people living and working in and around the nation's forests.

Although the health of the nation's forests is an important environmental issue, the quality of the nation's air is an equal, albeit less visible, issue. From the time when walls of forests greeted pioneers to the time when forest fires sparked a national fire safety mascot named Smokey the Bear, the forests have been a concrete part of life in America.[3] On the other hand, pollution and the effects of pollution often go unnoticed. Issues concerning air quality are sometimes ignored by the public and the media until signs of pollution become evident in the atmosphere or until people begin to experience health problems.[4]

Managing the earth's resources requires a balancing of many environmental issues, and the government has a responsibility to consider issues of which the general public and the media may not

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1. *See The Clinton Years: A TIMELINE Series: The Clinton Record (4th of 6 parts)*, PORTLAND OREGONIAN, Aug. 28, 1996, at A17.

2. *See* Lee Siegel, *Shrub Lab Attempts Rehabilitation of Native Shrublands*, SALT LAKE TRIBUNE, Aug. 1, 1996, B1.

3. *See Western Wildfires Scorch National Parks, Forests*, N.Y. TIMES, Oct. 6, 1996, Des Moines Register 1.

4. *See* David G. Hawkins and Deborah Shprentz, *Current Standards Don't Keep Up With New Findings On Health Threat*, TIMES UNION (Albany, NY), Dec. 15, 1996, at E1.

be aware and to educate the public on these issues. When a particular practice provides a visible solution to one environmental problem but creates a less visible harm to another part of the environment, the government must stand at the crossroads and provide public education and leadership. Prescribed burns are such a practice; they simultaneously help forests and threaten air quality.

### *A. Definitions in Forestry*

Before beginning a discussion on the effects of prescribed burns, it is useful to define a few forestry terms. First, a forest is made up of stands. A STAND is a "contiguous group of trees sufficiently uniform in species composition, arrangement of age classes, and condition to be a distinguishable unit."[5] Sometimes forest managers start fires or allow naturally occurring fires to burn in order to improve the health of the forests; this practice is called prescribed fire. Prescribed fire is the

> controlled application of fire to wildland fuels in either their natural or modified state, under such conditions of weather, fuel moisture, and soil moisture, to allow the fire to be confined to a predetermined area and at the same time to produce the intensity of heat and rate of spread required to meet planned objectives.[6]

Fuels burned in their natural state are burned under living stands of trees.[7] On the other hand, fuels burned in a modified state are burned after the stands have been cut down. After stands have been cut down, the vegetation that remains, the slash, is burned in its place or is gathered in piles, called slash piles, for burning.[8] For the purposes of this Comment, the term "prescribed burn" refers to the general use of prescribed fire in all of its existing forms.[9]

### *B. Forest Health v. Air Quality*

Prescribed burns help improve the health of forests, but they

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5. DAVID M. SMITH, THE PRACTICE OF SILVICULTURE 16 (John Wiley & Sons 8th ed. 1986)(1962).

6. IDAHO DEP'T OF LANDS, RULES PERTAINING TO THE IDAHO FOREST PRACTICES ACT Rule 010.45 (1996).

7. *See* SMITH, *supra* note 5, at 244-49.

8. *See id.* at 230-33.

9. *But see id.* at 238. "The burning of slash involveshotter fires and much heavier concentration of fuel so that it is a kind of treatment easily recognizable as being in a class by itself."

also diminish air quality.[10] Among the many benefits of prescribed burns are: the prevention of disastrous fires through controlled fuel reduction burns, preparation of seedbeds, control of competing vegetation, improvement of grazing,[11] management of wildlife, recreation management, and control of disease and pests.[12] In spite of having positive effects, burns also send black smoke into the air. The effects of the smoke range from the simple problem of nuisance[13] to the serious problem of air pollution.

Prescribed burns generate several substances that can cause potential harm to the environment. One is carbon monoxide.

> Both burning and decay of organic substances from the forest and elsewhere change the carbon of those substances into atmospheric carbon dioxide. There is concern that continuing

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10. *Id.* at 223.

> The appearance of debris left by harvesting operations is so offensive that it is not easy to be entirely objective about determining the extent of disposal. Slash can be simultaneously harmful and beneficial; its treatment can be very expensive and the resulting benefits are mostly rather indirect. Consequently, the problems created by slash and other organic materials must be thought of as an integrated whole in terms of their effect on the productivity, utility, and safety of specific stands and site (Cramer, 1974; Martin and Dell, 1978; Kraemer & Hermann, 1979).

DAVID M. SMITH, THE PRACTICE OF SILVICULTURE 223, (John Wiley & Sons 8th ed. 1986)(1962).

11. *Id.* at 241-42.

> The most traditional use of fire in forests is for the **improvement of grazing** although it has commonly caused the destruction of forests. The best place for this kind of use in silviculture is in certain dry-site forests that have a characteristic understory of grasses. The amount and quality of this kind of forage can be enhanced by periodic removal of litter and dead grass. Burning at the end of the dormant season accelerates the sprouting of green grass at the very time when the animals are most likely to be starving. The only nonsprouting North American tree species really compatible with frequent burning to favor grazing is longleaf pine and not even it will stand annual burnings. Many ponderosa pine forests have a typical grass understory and grass can be induced under stands of other American tree species by burning and grazing, but in these cases the burning has to be suspended during periods of tree regeneration. Attempts to combine grazing and timber production in closed stands that do not have a characteristic grass understory are seldom very good silviculture or animal husbandry [emphasis in original].

12. *See* SMITH, *supra* note 5, at 240-42.

13. *See Simpson Timber Co. v. Olympic Air Pollution Control Auth.* 1973 WL 34066 (Wash. Pol. Control Bd.); *Simpson Timber Co. v. Olympic Air Pollution Control Auth.*, 549 P2.d 5 (Wash. 1976). In this case, complaints by citizens of a bad smell and ashy fallout from the respondent's fire prompted the local authority to give the respondent a civil penalty. Although, the penalty was overturned because the respondent had complied with state permit requirements, the case illustrates some of the negative consequences of slash burns.

> increases in the amount of this gas in the atmosphere will block so much outgoing radiation as to cause significant climatic warming. Unfortunately it does not appear that the increased carbon dioxide goes entirely toward making the world's vegetation grow faster because the amounts in the atmosphere seem to increase. There is a net transfer of carbon to the atmosphere when forests are destroyed and not replaced with new ones.[14]

Another substance is particulate matter, which is measured in micrograms per cubic meter of air (μg/m3). Particulate matter presents a problem because dense particles in the air make the air difficult to see through and difficult to breathe.[15] Three other emitted substances are lead, sulphur dioxide, and nitrogen dioxide.

The goal of this Comment is to bring attention to the effects that prescribed burning has on air quality. This Comment looks at the forest burning/air quality issue in the state of Idaho[16] and analyzes whether the state government is providing effective leadership. Recently, the state of Idaho declined a rule that would have required air quality permits for burners. First, this Comment will explain the state of the forest burning/air quality situation prior to the proposed changes and will present the problems that the lack of an air quality permit system created. Second, this Comment will

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14. SMITH, *supra* note 5, at 228.

15. *Id.* at 227-28.

> The most important problems with smoke from forest fuels come from unburned particles that make it a source of dirt and restriction to visibility (Southern Forest Fire Laboratory, 1977). Therefore, the drier the fuel and the quicker and more complete the combustion, the better it is for the quality of the air. Furthermore, the conditions conducive to such good combustion are usually ones in which smoke columns rise quickly so that the pollutants are soon dispersed thinly in the atmosphere. The more rapidly the air temperature decreases with height the better is this kind of vertical dilution. If there is a temperature inversion, that is, a situation in which warm air has settled atop cooler air, the smoke will accumulate beneath an otherwise invisible ceiling formed by the warm air.

16. Donald R. Gedney and Charles Van Sickle, *Geographic Context of Forestry, in* FOREST RESOURCE MANAGEMENT 301, 313 (William A. Duerr et al. eds., 1979).

> In the northern Rockies (Idaho and Montana), the terrain is rugged and steep; timberline is at lower elevations than to the south; and the best forest development occurs between 2,500 and 6,000 feet. The ability to obtain or maintain desired species distributions is of concern to forest managers in this region. Consequently, the successional dynamics of tree species is important. Climax species on cool, moist sites include cedar-hemlock and spruce-fir; on drier sites, ponderosa pine; one well-drained sites, Douglas-fir. Western white pine, western larch, and lodgepole pine occur as temporary, fire-induced and fire-maintained forests.

explain the proposed changes and look at the response that followed public notice of the changes. Third, this Comment will examine the consequences of the revised version of the rule in light of Washington's system for regulating prescribed burns. Finally, this Comment will analyze the reasons for the failure of the proposed rule in light of modern public relations practices and the current policy of the federal government to increase prescribed burns.

## II. Background to the Proposed Changes

Prior to the proposed changes, the Idaho Department of Lands, the agency that oversees the management of the state's forests, required burners to have permits only during the closed season and only for the purpose of fire hazard reduction.[17] Section 38-115 of the Idaho Forestry Act requires that between May 10 and October 20 of each year,[18] people wishing to conduct prescribed burns obtain permits from the Idaho Department of Lands[19] because conditions during this period are the "most conducive to dangerously rapid spread of fires."[20] "Unfortunately, the atmospheric conditions that dilute smoke most rapidly"[21] also occur during this period. Thus, burners, wishing to avoid the hassle of obtaining a permit, would postpone burning until the open season when fire hazards would be less likely but when air quality would be most vulnerable.

### *A. The North Idaho Airshed Group*

In the past, instead of having an air quality permit system, the state left the issue of air quality in the hands of the North Idaho

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17. *See generally*, IDAHO CODE §§ 38-101,135 (1948).

18. *Id.* at § 38-115. This period is known as the closed season, and the director of the Department of Lands has the power to "extend the period of closed fire season in any district . . . to meet the particular fire hazard of each district, and when the safety of the public requires, change the closed season in any district by fixing inclusive dates other than those herein designated." *Id.*

19. *See id.*

> During the closed season it shall be unlawful for any person to set or cause to be set a fire in any slashing area, or a fire to any stump or stumps, log or logs, down or standing timber or to set or cause to be set, a fire on any forest or range lands or dangerously near thereto, or in any field in any forest protective district, without having first procured a permit from the warden of the district . . . .

*Id.*

20. SMITH, *supra* note 5, at 228.

21. *Id.*

Airshed Group. The North Idaho Airshed Group, the state's only active airshed group, accepts as its members, agencies and companies who are "dedicated to the preservation of air quality in North Idaho."[22] Each member[23] agrees to provide the North Idaho Airshed Group Monitoring Unit and the appropriate local airshed coordinator with a plan of the member's prescribed burns for the calendar year.[24] Each plan must provide the following information: 1) member's identification number, 2) a legal description of the burn, 3) the elevation of the burn, 4) acreage for the burn, 5) an estimate of fuel loading, 6) the type of burn, 7) airshed number, and 8) the impact zone code.[25] Each member must also provide the local coordinator and the Monitoring Unit with additional information[26] on the day before a burn. However, the North Idaho Airshed Group does not include in its membership independent loggers or non-industrial private forest landowners. Furthermore, although the North Idaho Airshed Group expects its members to participate, failure to cooperate has no official consequences, and a member may withdraw from the group after providing thirty days notice.[27] As a result, the state of Idaho's

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22. MONTANA/NORTH IDAHO STATE AIRSHED GROUP, OPERATING GUIDE, 20 (1997). The purpose of the group is to "minimize or prevent the accumulation of smoke in Idaho to such degree as is necessary to protect State and federal ambient air quality standards when prescribed burning is necessary for the conduct of accepted forest practices such as hazard reduction, regeneration and wildlife habitat improvement." *Id.*

23. In the past, the Army Corp of Engineers, the Bureau of Land Management, the Idaho Department of Lands, and the U.S. Forest Service have been members of the North Idaho Airshed Group. *See id.* at 21.

24. *See id.* at 25.

25. MONTANA/NORTH IDAHO STATE AIRSHED GROUP, OPERATING GUIDE, 25.

26. *See id.*

> In addition, each burner is required to submit a daily report of planned burning for the next day to the Local Airshed Coordinator. Airshed Coordinators compile their report from all members who called in and forward their report to the Monitoring Unit. This report must reach the Monitoring Unit by 10:00 a.m. PDT each day, and should include the following:
>
> (1) Specific identification numbers of burns planned for the following day within impact zone(s);
>
> (2)Number of acres and number of burns planned for the following day within the airshed, but outside of the impact zone(s);
>
> (3)Identification numbers for burns planned for Saturday, Sunday, and Monday (including Monday Holidays) must be submitted on the Friday morning report.

*Id.*

27. *See id.* at 21. Moreover, the only actual punishment for violating Airshed rules is the revocation of membership. *See id.* at 23. When an organization no

only year-round system of regulating prescribed burns for air quality was a voluntary one.

### *B. Problems with the Voluntary System*

There were two main problems that the voluntary system presented. First, if air quality in Idaho were to worsen, the state might not be able to identify the source of the pollution due to the lack of burn specific data for non-airshed members.[28] Second, if air quality were to worsen, the state could not intervene to prevent burns for the purpose of improving air quality. The creation of an air quality permit system would seemingly have solved both problems because the Idaho Department of Lands could then have required that burners applying for permits provide the Department with pre-burn and post-burn data, and the Department could have refused to issue permits if meteorological updates showed poor air quality conditions.

## III. Analysis

### *A. The Development of the Proposed Changes*

The Idaho Department of Lands decided that it would create an air quality permit system by administrative rulemaking,[29] but because "an agency's rulemaking authority is limited to what it has been delegated,"[30] the agency needed to be able to point to statutory authority for making the changes. The following three provisions of the Idaho Code deal with issues of forestry and/or fire:

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longer wants to follow the rules, it is punished by being told that it is no longer subject to the rules. *Id.* Although, the Idaho State Air Quality Bureau, Dept. of Health & Welfare, or a local air pollution control agency may take appropriate sanctions for violation of open burning as set forth in existing statutes, rules, or regulations. *Id.*

28. Telephone interview with Jim Colla, Forest Practices Coordinator, Idaho Department of Lands, (Oct. 14, 1997). The Idaho Department of Lands cannot provide data from burns conducted by non-members of the North Idaho Airshed group because the Idaho Department of Lands does very little data collecting. They record only the name of the party conducting the burn, the location of the burn, and the general time of the burn. *See id.*

29. "Rulemaking corresponds to legislative action. When an agency engages in rulemaking, it promulgates a regulation that has the same force and effect of law as if it had been passed by . . . [the] state legislature." ADMINISTRATIVE PROCEDURE AND PRACTICE: PROBLEMS AND CASES 18 (William F. Funk et al. eds., 1997).

30. *Id.*

1) the Idaho Forestry Act;[31] 2) the Fire Hazard Reduction Law;[32] and 3) the Idaho Forest Practices Act.[33] The Idaho Forestry Act does not mention "air quality,"[34] and thus, could not serve as legislative authority for the proposed rulemaking. Similarly, the Fire Hazard Reduction Law does not authorize the Idaho Department of Lands to engage in rulemaking for the purpose of affecting air quality.[35] The Idaho Department of Lands found a source of authority in the preamble to the Idaho Forest Practices Act,[36] an act that deals with broader issues such as the following: timber harvesting, road construction and maintenance, residual stocking and reforestation, use of chemicals, slashing management, and prescribed fire. The preamble to the Idaho Forest Practices Act states that "[I]t is the purpose of this chapter to vest in the board [the Idaho Board of Land Commissioners] authority to adopt rules designed to assure the continuous growing and harvesting of forest tree species and to protect and maintain the forest soil, air, water resources, wildlife and aquatic habitat."[37] Thus, in 1994, the forest practices advisory committee[38] proposed a rule pertaining to the

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31. *See generally*, IDAHO CODE §§ 38-101-135 (1992).
32. *See generally*, IDAHO CODE §§ 38-401-411 (1992).
33. *See generally*, IDAHO CODE §§ 38-1301-1313 (1996).
34. IDAHO CODE § 38-132.
35. IDAHO CODE § 38-402.

> The director of the Department of lands is hereby authorized and empowered to adopt plans, programs and rules for the management and reduction of fire hazards for the protection of forest resources, any of which hazards are created by insects, disease, other natural causes, or by any person engaged in harvesting timber, ties, logs, poles, posts, cordwood, pulpwood, or any other forest product or potential forest product upon lands within the state of Idaho.

*Id.*

36. The Department also found the necessary authority for the creation of an air quality permit system through rule making in the section labeled "Duties of the Board." The section states that the board:

> [s]hall adopt rules for forest regions establishing minimum standards for the conduct of forest practices on forest land. These rules shall . . . [p]rovide for management of slashings resulting from the harvesting, management, or improvement of forest tree species in that manner necessary to protect reproduction and residual stands, to reduce risk from fire and insects and disease, to optimize the conditions for future regeneration of forest tree species, and to maintain air and water quality and fish and wildlife habitat.

IDAHO CODE § 38-1304(1)(e).

37. IDAHO CODE § 38-1302(2).
38. IDAHO CODE § 38-1305(2)(a).

> The forest practices advisory committee is composed of eight (8) members, three (3) residing in the north forest region and three (3) residing in the south forest region. The remaining members shall be

Forest Practices Act that would require burners to obtain air quality permits from the Idaho Department of Lands.

*B. Public Participation*

Initially, the Department anticipated that the public would support the proposed changes. Bill Love, Chief of Forestry Assistance for the Idaho Department of Lands, said, "We don't anticipate much opposition to the changes. . . . These are common sense rules and many of them are already being applied by operators (loggers)."[39] The optimism of the personnel of the Idaho Department of Lands seemed to be matched by members of the logging industry. "The changes are really not a major issue for us," said Joe Hinson, executive vice-president of the Intermountain Forest Industry Association. "It's a process we have long supported and if there are problems out there we want to fix them."[40] In addition, as Mike Boeck, manager of the Idaho Forest Industries lumber mill in Priest River pointed out, "[t]he proposed rules are no more restrictive than what [loggers are operating] . . . under in Washington (state)."[41] Boeck also stated that the Idaho Department of Lands was smart because a committee of private citizens rather than civil service workers proposed the changes,[42] but winning broad support for the proposed rule did not follow from having a small group of private citizens propose the rule.

Before the Idaho Department of Lands could adopt the proposed rule, they had to allow for public participation. Under the Idaho Administrative Procedure Act, the Department, when engaged in rulemaking, must provide notice,[43] a comment peri-

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> residing in Idaho. Members of the committee shall be qualified by experience and/or training to provide technical advice related to forest practices. One (1) member residing in each forest region shall be a private landowner, a private timber owner, or authorized representative of the landowner or timber owner who regularly engages in forest practices. One (1) member residing in each forest region shall be an operator. One (1) member residing in each forest region shall be a representative of the general public. One (1) member shall be qualified by training and experience as a fisheries biologist.

*Id.*

39. Kevin Keating, *Idaho Proposes Changes in Logging Rules: Public Comment Sought on New Requirements aimed at Protecting Water and Air Quality*, SPOKESMAN REV., Dec. 16, 1994, at B1.

40. *Id.*

41. *Id.*

42. *Id.*

43. IDAHO CODE § 67-5221 (1997). This section requires that the agency publish notice of proposed rulemaking in both the administrative bulletin and in

od,[44] and an opportunity for a hearing.[45] Public participation in the administrative rulemaking process is not only required but is also wise, for "as forest resources have become less and less remote from public view and concern, the need for public involvement to secure adequate review and operational support has become apparent."[46] While notice and comment and an opportunity for a hearing help to secure public participation, the response is not guaranteed to reflect the current thinking of a majority of the public.

In this case, the response to notice of the proposed changes caused the Idaho Department of Lands to reconsider the proposed changes and ultimately, to adopt a revised version of the rule. Notice of the proposed rule "generated about 10 times the usual number of comments,"[47] and the comments were overwhelmingly negative. In fact, "90 percent of the people who commented on the slash-burning issue were dead set against it."[48] According to Jim

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"at least the accepting newspaper of [the] largest paid circulation that is published in each county in Idaho or, if no newspaper is published in the county, then in an accepting newspaper of largest paid circulation published in Idaho and circulated in the county." *Id.*

44. *Idaho Code* § 67-5222 (1997). This section provides that "[p]rior to adoption . . . of a rule, the agency shall afford all interested persons reasonable opportunity to submit data, views and arguments, orally or in writing. The agency shall receive comments for not less than twenty-one (21) days after the date of publication of the notice of proposed rulemaking in the bulletin." *Id.*

45. *See id.* This section also provides the following:

> When promulgating substantive rules, the agency shall provide an opportunity for oral presentation if requested by twenty-five (25) persons, a political subdivision, or an agency. The request must be made in writing and be within fourteen (14) days of the date of publication of the notice of proposed rulemaking in the bulletin, or within fourteen (14) days prior to the end of the comment period, whichever is later.

*Id.*

46. Charles A. Connaughton, *Planning a Public-Relations Program, in* FOREST RESOURCE MANAGEMENT, *supra* note 16, at 391,398.

> One problem frequently associated with public involvement is to define the segment of the public to which attention should be directed. Obviously, all elements of the public aren't equally interested or concerned in all phases of land management and related environmental matters. Where, then, should public involvement efforts start and stop? The only answer is the broad generalization that each case must be decided on its own merits.

*Id.*

47. Julie Titone, *Rule Changes Bring Stream of Controversy Environmentalists Say Sediment Will Reach Streams; Loggers Say Restrictions Go Too Far*; SPOKESMAN REV. Feb. 8,
1995, at B1.

48. *Id.*

Colla, the Forest Practices Coordinator for the Idaho Department of Lands who prepared a summary of the comments,[49] opposition to the changes came from non-industrial private landowners and independent loggers.[50] While the proposed changes would have little effect on members of the North Idaho Airshed Group who were already complying with air quality guidelines, the proposed changes would have a great effect on non-industrial private landowners and independent loggers. Under the proposed rule, a member of a recognized airshed group could apply for an annual air quality permit while a non-member would be required, year round, to apply for an air quality permit for each individual burn.[51]

The comments reflected two main concerns about the substance of the proposed rules. First, some of those who gave comments

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49. *See generally*, Memorandum from Jim Colla, Forest Practices Coordinator, to Forest Practices Act Advisory Committee summarizing comments received by the Idaho Dep't of Lands (1995) (on file with Idaho Dep't of Lands).

50. Ken Olsen et al., *No Permit Needed to Burn Logging Slash Land Board Decides to Scrap Controversial Proposed Rule*, SPOKESMAN REV. Aug. 9, 1995, at B1. "The forest industry, state and U.S. Forest Service already comply with those guidelines in North Idaho," Colla said. "This is an attempt to include small woodlot owners." *Id.*

51. *See* Notice of Proposed Rulemaking, Idaho Dep't. of Lands (1994).

> 071. Prescribed Fire
>
> 01. Purpose. Prescribed fire is a tool with application in land management. Smoke from prescribed fires can have adverse impacts on ambient air quality or public health. It is the purpose of these rules to establish a management system for smoke from prescribed fires that will protect air quality.
>
> 02. Permits. Permits are required for all prescribed fires conducted in operations with an active notification of forest practice to maintain air quality and to protect public health. Possession of an air quality permit will not preclude meeting the fire safety requirements specified in Idaho Code, Section 38-115. The air quality permit shall be subject to the following conditions:
>
> a. Air quality permits shall be required year around and be limited to that period of time needed to accomplish the burning, not to exceed ten days.
>
> b. The director may limit the period of time during the year when air quality permits can be issued based upon local conditions.
>
> c. Each air quality permit shall contain all the terms and conditions deemed necessary by the director for such burning. Conditions may include a daily limitation on the permit based on air quality information. The director will not issue an air quality permit unless he is reasonably sure the prescribed fire will not create air quality or public health problems.
>
> d. Membership in good standing in a recognized Airshed Group will constitute basis for an annual air quality permit.

*Id.*

asserted their "right to burn"[52] and insisted that government intervention was a violation of their property rights. Second, some of those who gave comments asserted that the government could trust them not to smoke out their neighbors or to conduct prescribed burns during periods when air quality conditions were poor.[53] While the Department recognized these viewpoints, it wisely questioned theer relevancy. Neither the United States Constitution nor the Idaho state constitution creates any right to conduct prescribed burns. Moreover, as Colla pointed out in his summary, "[s]ome burners are faced with other constraints, and burn when it is not advisable for fire hazard or air quality."[54] Nonetheless, the board finally conceded its position, and in the end adopted a revised version of the rule which did not include an air quality permit system.[55]

The board, however, could have probably adopted the original version of the rule without raising so much opposition if it would have done the following: 1) used more persuasive language in the letter of notice, and 2) given more clarification on the Department's

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52. *Supra* note 49.
53. *Supra* note 49.
54. *Supra* note 49.
55. IDAHO DEP'T OF LANDS, RULES PERTAINING TO THE IDAHO FOREST PRACTICES ACT Rule 071 (1996).

> 071. **Prescribed Fire**
>
> 01. **Purpose**. Prescribed fire is a tool with application in land management. Smoke from prescribed fires can have adverse impacts on ambient air quality or public health. It is the purpose of these rules to establish a management system for smoke from prescribed fires that will protect air quality.
>
> 02. **Notification**. The use of prescribed fire requires a valid notification in accordance with subsection 020.05 to maintain air quality and to protect public health. Possession of a valid notification will not preclude meeting the fire safety requirements specified in Idaho Code, Section 38-115.
>
> 03. **Recommended Practices**. To maintain air quality and protect public health the following practices are recommended:
>
> a. Slash and large woody debris piles should be compact and free of stumps, soil, snow, and nonwoody organic material.
>
> b. Piles should be fully cured, dried at least two (2) months, prior to ignition. Piles should be at least partially covered with a water resistant material so they can be ignited after enough precipitation to lower the fire danger.
>
> c. Braodcast burns should be conducted within a prescription that minimizes adverse effects on air quality.
>
> d. Membership in good standing in a recognized Airshed Group is encouraged.

*Id.*

strategy for implementing the proposed changes.[56]

An agency can be most successful in gaining support for a new rule if it can "describe the alternative courses of action and their consequences and explain the criteria by which [the agency] proposes to choose one of the alternatives."[57] Whatever the advisory committee's reasons for rejecting alternatives to the rule it ultimately proposed, the letter of public notice contained little persuasive language. The letter merely stated that the "board feels that this rule package will add significantly to the rules' ability to protect water and air quality, soil productivity, and ensure productive forests."[58] The Idaho Department of Lands would probably not have received so many negative comments if the letter of notice had included the following three pieces of information. First, air quality deteriorates in the fall because many contractors burn outside of the closed season to avoid the permit system.[59] Second, the Idaho Department of Lands believed that it could administer the proposed program with existing resources.[60] Third, if the Idaho Department of Lands did fail to address the issue of the air quality hazard associated with forest burning, then, some other agency probably would eventually address the issue.[61]

The setback caused by the adoption of the revised rule may have been avoided if the Idaho Department of Lands had better informed the public of its strategy for implementing the proposed changes. The summary of the comments contains two separate but

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56. *See* Connaughton, *supra* note 46, at 395. Although there were immediate steps that the Idaho Department of Lands could have taken to gain support for the proposed changes, public relations must be ongoing.

> The best public-relations results are obtained when the program is continuous, not when it consists only of short bursts of vigorous effort on a project basis, with little or no effort in between. Actually, a combination of the two methods has merit, the sustained program being maintained at all times on the fundamentals and being fortified by special effort when unusual situations arise that need concentrated action.
>
> . . .
>
> A public-relations program requires as much careful planning as any other phase of land management. This point can't be emphasized too strongly, because public-relations efforts on a catch-as-catch-can basis tend to be sloppy and ineffective.

*Id.*

57. *Id.* at 397.
58. Notice of Proposed Rulemaking, Idaho Dep't. of Lands (1994).
59. *See supra* note 49.
60. *See id.*
61. *See id.*

related concerns regarding the implementation of the changes.[62] These comments reflect a sense of uneasiness in the minds of the comment-givers as to the competence of the Idaho Department of Lands and the Department's power over landowners. For example, midway through the comment period, Colla became aware that the landowners opposed the changes, in part, because violation of the permit system would carry a fine.[63] However, according to Love, the Idaho Department of Lands would probably not have given notices of violations for several years after the implementation of the new permit system to allow the Department time to educate the public on the changes.[64] If the Department had made clear to the public that it intended to delay enforcement of the proposed rule, it probably would have received more support.

### *C. Consequences of the Revised Rule*

In spite of the fact that air quality in Idaho is currently fine by EPA standards,[65] the adoption of the revised rule represents a setback in environmental management. So far in 1997, the state has complied with Environmental Protection Agency air quality standards in the following categories: 1) particulate matter; 2) carbon monoxide; 3) nitrogen dioxide; 4)sulfur dioxide; and 6) lead.[66] However, there are several potential problems. First, the Environmental Protection Agency tests the air to determine whether Idaho is in compliance with agency standards, but if the state falls out of compliance, it is up to the state to determine the sources of pollution that are pushing the state over the limit. Since the state of Idaho does not have burn data on non-members of the North Idaho Airshed Group, the state cannot reasonably determine what portion of the air pollution to attribute to burns by non-

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62. The two categories of comments were summarized as follows:

> 1) A permit approach, without implementation, will not solve the air quality problem. [The] rules do not state what to do on the ground. 2) In general, how the Idaho Department of Lands will implement and enforce [the rules] is not stated; i.e., how . . . [will the Idaho Department of Lands] treat ongoing fires on a no burn day; are there different standards for different size operations; nothing in the rules states how to insure clean burns.

*Id.*

63. *See* Titone, *supra* note 47.

64. Telephone interview with Bill Love, Chief of Forestry Assistance for Idaho Department of Lands, (Oct. 22,1997).

65. *See* Environmental Protection Agency Office of Air Quality Planning and Standards Monitor Ranking Report (Nov. 3, 1997).

66. *See id.*

members. Second, even if the Idaho Department of Lands determined that burns by non-members were causing the state's noncompliance, the Department could not prevent the burns from happening. Thus, the revised rule does not forward the state's ability to adequately monitor and improve air quality.

Not only does the rule not accomplish the goal of the state to maintain air quality, but the adoption of the rule itself creates a new problem because it prevents local authorities from requiring permits for prescribed burns during the open season. In the past, "landowners had to get a burning permit if their property was within a fire district requiring one."[67] Now, the state has preempted the field with regard to prescribed burns, rendering local regulation of prescribed burns unconstitutional. Instead of replacing local regulations with a statewide permit system, the state opted for voluntary guidelines.[68] Thus, the state created a vacuum where it meant to tighten control.

### *D. Smoke Management in Washington State Compared*

While Idaho puts off addressing the air quality/forest burning issue, the state of Washington,[69] another heavily forested state, has adopted progressive measures for protecting its forests and air quality. Unlike Idaho, Washington has its own clean air act, and the Washington Clean Air Act provides that:

> The [D]epartment of [N]atural [R]esources in granting burning permits for fires for the purposes set forth in RCW 70.94.660 shall condition the issuance and use of such permits to comply with air quality standards established by the [D]epartment of [E]cology after full consultation with the [D]epartment of [N]atural [R]esources. . . . Further, such permitted burning shall not cause damage to public health or the environment. All permits issued under this section shall be subject to all applica-

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67. Ken Olsen et al., *supra* note 50.
68. *See id.*
69. *See generally*, Gedney and Sickle, *supra* note 16, at 316.

> In Washington and Oregon, . . . there are two major forest regions. West of the Cascade summit, where soils are productive and moisture ample, is the Douglas-fir region. The significant tree species or groups are few. Douglas-fir, true firs, and western hemlock account for almost nine-tenths of the quantity of standing timber. East of the Cascade crest, moisture is a limiting factor. Only a fraction of the land is forest land, and a fifth of the forest land is unsuited for growing timber. This is the ponderosa pine region. This pine species, Douglas-fir, true fir, western larch, and lodgepole pine make up most of the softwood timber inventory.

*Id.*

> ble fees, permitting, penalty, and enforcement provisions of this chapter. The [D]epartment of [N]atural [R]esources shall set forth smoke dispersal objectives designed consistent with this section to minimize any air pollution from such burning and the procedures necessary to meet those objectives.[70]

Washington's Clean Air Act also requires that the Department of Natural Resources, an agency with authority comparable to the Idaho Department of Lands, create a smoke management plan "in consultation with the [D]epartment of [E]cology, public and private landowners engaged in silvicultural forest burning, and representatives of the public."[71] As in Idaho, Washington state law preempts local authority with regard to the regulation of prescribed burns,[72] but unlike Idaho, Washington has a comprehensive, statewide smoke management plan, which addresses the issue of the air quality problems associated with forest burning.

The introduction to Washington's Smoke Management Plan, which reads like a mission statement, evidences the commitment of the people of the State of Washington to protect air quality. The introduction states, "The people of Washington State care about the quality of [the] air, . . . [and] [p]rotection of public health and preservation of the natural attractions of the state are high priorities with the DNR and can be accomplished along with a limited, but necessary, outdoor burning program."[73] These eloquent statements of concern for the environment would be meaningless without concomitant action on the part of the state, but Washington's long history of smoke management lends credibility to its pronounced concerns about the environment. Washington, which has had a Smoke Management Plan in effect since 1969, can boast that its program has served as a model for smoke management programs in other states and that the Washington plan has been recently updated.[74] The plan is like a contract between the people

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70. *Wash. Rev. Code Ann.* §§ 70.94.670 (West 1997).

71. WASH. REV. CODE ANN. §§ 70.94.665(2) (West 1997).

72. *See Simpson Timber Co. v. Olympic Air Pollution Control Auth.*, 549 P.2d 5 (Wash. 1976). In an *en banc* decision, the Supreme Court of Washington held that a party conducting a burn who complied with state guidelines could not be held liable for failure to comply with local regulations. *See id.*

73. WASHINGTON STATE DEP'T OF NATURAL RESOURCES, SMOKE MANAGEMENT PLAN, 1 (1996) [hereinafter Smoke Management Plan].

74. *See generally, id.*

> The . . . Smoke Management Plan has undergone several informal and semi-formal modifications since its adoption, mainly by agreement with the plan's signatories and other agencies. These modifications represent significant changes in DNR operating procedures and emphases.

and the state, where the state, under the Department of Natural Resources, provides fire protection, and the people agree to the terms of the Smoke Management Plan.[75] Thus, the plan covers nearly all parties, with only a few exceptions, such as non-participating Indian nations.[76] Following the introduction, the plan sets out in detail the relevant law, the operating procedures for the permit system, and general information to facilitate burners' compliance with the plan. A number of the plan's sections deserve particular attention. In one section, the plan clearly describes the criteria that the Department of Natural Resources Region Managers will use when deciding whether to issue permits for various categories of burns.[77] Other sections discuss the Department's role in encouraging emission reduction techniques and alternatives to burning,[78] and the plan alerts burners that the Department will be

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. . .

The 1995 revision of the Smoke Management Plan reflects:

organizational changes to the DNR;

legislation directing that burning shall be prohibited when alternatives are available, reasonably economical, and less harmful to the environment;

legislation acknowledging the role of fire in forest ecosystems and finding it to be in the public interest to use fire under controlled conditions to prevent wildfires by maintaining healthy forest[s] and eliminating sources of fuel;

legislation exempting burning conducted for the purpose of restoring forest health or preventing the additional deterioration of forest health from the reduction targets and calculations of the Clean Air Act.

*Id.* at 1-2.

75. *See id.* at 4.

76. The plan provides the following:

Indian nations may choose to participate in all or portions of the plan. Participation would be by written agreement between the Indian nation and the Department of Natural Resources. Advantages of participation by Indian nations would include statewide coordination of burning, shared weather forecasting services, uniform data reporting and storage, better protection of the public through a unified burn approval system., satisfaction of federal Environmental Protection Agency requirements, and other services provided by either party to the other.

SMOKE MANAGEMENT PLAN at 4.

If the Idaho Department of Lands had used such persuasive language in its notice of proposed rulemaking, the proposed changes probably would have received more support.

77. *See id.* at 6-11.

78. *See id.* at 14-1,10. According to the plan, the following four alternative methods may be used successfully: 1) alternative mechanical treatments; 2) increased utilization; 3) chemical treatments; and 4) manual/hand labor. The plan includes a brief description of each method and presents the seven factors that should be considered when selecting a type of site treatment: 1) the nature of the existing ground cover; 2) physical site factors; 3) site preparation requirements; 4)

providing them with information about newly approved techniques and methods through the distribution of printed materials and ongoing educational activities.[79] Most importantly, throughout the plan, there are references to relevant federal and state laws, and directives are followed by supporting policy statements.[80] For the aforementioned reasons, Washington's Smoke Management Plan represents an achievement in public education and environmental leadership on the air quality/forest burning issue.

### *E. Federal Pro-burn Policy*

Although poor public relations and public pressure may have caused the Idaho Department of Lands to revise the proposed rule, the current policy of the federal government to increase prescribed burns may also have contributed to the rule's revision. In the last several years, the United States Forest Service has admitted that its strict "no burn" policy, which had been its policy since the early nineteen hundreds[81] has irreversibly harmed National Forests. Under the policy, the government stamped out wildfires without considering the long term effects of depriving the forests of the presence of fire.[82] As a result of this policy, the forests became fuel loaded[83] and extremely vulnerable to high-intensity fires[84]

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available personnel and equipment; 5) external constraints; 6) environmental impact; 7) costs. *Id.*

79. *See id.* at 20-22.

80. *See generally*, SMOKE MANAGEMENT PLAN.

81. *See* James Gerstenzang, *U.S. Plans Policy of "Prescribed" Forest Fires*, LOS ANGELES TIMES, Feb. 11, 1997, at A1.

82. *See* Alex Barnum, *Forest Service Torching More Trees: Controlled burns reduce fuel for damaging blazes*, SAN FRANCISCO CHRONICLE, Aug. 31, 1996, at A1.

"For millennia, fire has been a critical part of the ecosystem of the West. Low-intensity blazes crackled through the pine forests and oak woodlands of the Sierra Nevada every five to 40 years, creating the open, park-like conditions described by 19th century naturalists." *Id.*

83. *See Forest Health: Hearings on Forest Service: Resources Management and Fire Control Before the Subcommittee on National Parks, Forests and Lands*, (1996)(statement by Leon F. Neuenschwander, Professor, University of Idaho, Department of Forestry Resoures).

> Wildfires burn very differently in fire deprived forests because of fuel build-up. Fuel build-up is a collective term that includes the change in forest composition, structure, and surface organic material fuel accumulation. In forests altered by the exclusion of fire, wildfires no longer burn on the surface, creeping along the forest floor; instead, they are likely to burn the entire tree or the entire forest. Old growth fire resistant trees can not withstand the intensity of these fires. In forests where fuels have built up, wildfires burn through the crowns of the forest consuming everything except trunks and larger branches. Within the perimeter of

having the potential to destroy the soil[85] and cause massive devastation to the forests.[86]

Realizing this, the Federal Government dramatically expanded its prescribed burn programs over the last few years.[87] Although this "pro-burn" policy has drawn some support from environmentalists, the "pro-burn" policy creates two potential problems. First, because the forests are exceedingly flammable, prescribed fires can easily become wildfires if they are not carefully monitored and contained.[88] Second, in the name of restoring the health of the

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the fire, few areas are lightly burned. Some trees may survive in the lightly burned areas, but most trees perish due to the pervasive intense heat.

84. *See Western Wildfires, supra* note 3. "Racing through national forests and national parks, these infernos have been characterized by flames shooting 250 feet high and temperatures hitting 2,000 degrees."

85.

> In Montana, where a wildfire in the Custer National Forest charred 14,800 acres, the heat reached such high levels that it destroyed seeds and sterilized the soil. In Idaho, a fire burned 22 square miles near Boise with such intensity that the oil from burned pine needles congealed in a water-repellent layer just below the soil's surface. With soil erosion expected to increase dramatically, forest workers are cutting tree trunks and laying bales of hay in an effort to protect the city from mudslides.

*Id.*

86.

> At stake under the new federal [pro-burn] policy, proponents said, is nothing less than the future health of millions of acres of ponderosa pine and other old-growth stands of western giants, as well as the safety of communities from Arizona to Montana and across the Sierra range to the Pacific shores.

Gerstenzang, *supra* note 81.

87.

> The shift in the federal government's emphasis can be seen in budget figures for the planned fires. In 1994, the Interior Department spent $4.3 million on prescribed burning and the U.S. Forest Service, an agency of the Agriculture Department, allotted $12.7 million, officials in each agency said.
>
> For fiscal 1998, the administration is asking Congress for permission to spend as much as $62.8 million on similar activities, up from the $36.9 million allocated in the current year.

*Id.*

88. *See* David Foster, *Government Wildfire Policy Produces Smoke and Ire Critics Say the Park Service is Creating a Disaster with its Prescribe-burning Practice*, FORT WORTH STAR-TELEGRAM, Sept. 8, 1996. The Swet Creek Fire is one example of a prescribed fire that became a wild fire.

> Sparked by lightning [on] July 9 in the Frank Church-River of No Return Wilderness, it [was] designated a "prescribed natural fire" by Forest Service officials. Instead of dousing it, they planned to let it burn for the good of the forest.
>
> Their computer models showed that even a worst-case scenario would char no more than 18,000 acres, all within the wilderness. But the fire

forests, the air quality issue has been sacrificed.[89] With the Federal Government in a rush to burn up the West, the clean air cause is out and the forest burn cause is in.

This pro-burn climate, fueled by independent loggers and non-industrial private landowners who claim their "right to burn," and by the Federal Government's campaign to set fire to the West, probably made the Idaho Department of Land's decision not to create an air quality permit system an easier but not a wiser one. An air quality permit system would not have eliminated prescribed burns during the open season but would have given the state an opportunity to ensure that restoration of the forests does not compromise air quality.

## IV. Conclusion

Effective environmental management can be achieved only by a cooperative effort to protect the earth's natural balance. Centuries before the United States government existed, fire periodically cleansed the forests of the West of harmful undergrowth. The drastic reduction of burns by the Federal Government throughout the twentieth century has created an environmental crisis of towering proportions, for the forests have become ridden with slash and debris and tangled undergrowth. In an effort to return the forests to their past health and splendor, the Federal Government has decided to start and maintain more fires in America's West.

Bringing back fire to America's West creates a problem when the fires burn out of control and also poses a threat to air quality. By approving the burning of thousands of acres of forest land, the government is licensing the pollution of the air, for where there is fire, there is smoke. The smoke is harmful to the environment because of the particulate matter, the carbon dioxide, the nitrogen

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had other plans.

. . .

> On August 14, [after more than 34,000 acres had burned,] the fire was declared to be a wildfire, to be fought with all resources at hand. But by then, it was too late. The blaze had grown too big to stop, and there were precious few resources at hand.

*Id.*

89. *See* Rocky Barker, *Fire Fills Air with Smoke in Garden Valley*, IDAHO STATESMAN, May 17, 1997, 1A. Secretary of the Interior Bruce Babbitt's plan for "increasing the amount of acreage burned fivefold over the next few years, . . . could increase air pollution in the spring and fall over large areas of the West." *Id.*

dioxide, the sulphur dioxide, and the lead that the smoke contains. Among the effects of these emissions are poor visibility caused by dense particles in the air, global warming caused by increased carbon dioxide, and in general, the serious threat that smoke inhalation poses to human health. Although the nation's forests are a visible resource, the nation's air is an equally valuable resource, and these resources must be kept in balance.

The proposed changes to the Idaho Forest Practices Act, would have created an air quality permit system which would have allowed prescribed burning to continue during the open season but which would have ensured that air quality was not being compromised. First, the Idaho Department of Lands would have been able to require from burners, pre-burn and post-burn data as a condition of issuing the permits. In a period of poor air quality, the data would have allowed the Department to determine whether the fires by these burners were significantly contributing to the problem. Also, the Department would have had the authority to prohibit prescribed burning for the purpose of protecting air quality.

Although the current political climate favors burning over matters of air quality control, the Idaho Department of Lands had a duty to ignore popular sentiment and popular politics and to be stewards of the environment. Without strong leadership from the agencies that are responsible for keeping the earth's resources in balance, the nation will move from one environmental crisis to the next. Strong leadership, however, does not necessarily mean forcing an outcome. More often, strong leadership entails good communication and relation with the public.

Desired effects in forest management can be achieved through the development of a long term public relations program that involves every member of the Department, through the hiring of public relations experts, and through cooperation with the local media. Though the results of public relations work are not always immediate, the results can be significant. When an important new issue arises, there is already a forum for discussion and an established relationship of mutual trust and understanding. This trust and understanding can lead the way to compromise because, in the context of an ongoing relationship, battles do not become wars.

The air quality/forest burning issue lends itself to resolution because all concerned parties share the same basic goals. The federal government, the state agencies, the loggers, and the general

public all benefit from cleaner air. Similarly, they all benefit from healthy forests. With better sharing of information and some patient persistence, a balance between clean air and healthy forests should be achievable.

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