



United States Department of the Interior

TAKE
PRIDE IN
AMERICA

NATIONAL PARK SERVICE

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WASHINGTON, D.C. 20013-7127

IN REPLY REFER TO:

July 12, 1989

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SPECIAL DIRECTIVE 89-7

ANNUAL REVIEW

To: Directorate, Field Directorate, WASO Division Chiefs
and Park Superintendents

ACTING
From: Director

Subject: Fire Management Policy Review Team Report

Secretary Lujan has accepted the report from the team and has charged the agencies to incorporate its recommendations into their fire management programs as soon as possible.

Our initial and anticipated actions associated with each of the recommendations of the team are attached. The report represents a very thorough review of the use of prescribed natural fire by us in the parks and the Forest Service in its wilderness areas. Copies of the report are being supplied to all parks, along with the Summary of Public Comments.

It is impossible to address wildland fire management today without the use of some technical terms. The report uses management ignited fires and prescribed natural fires to identify the two types of prescribed fires in contrast to wildfires.

The Branch of Fire Management has the authority and responsibility to implement the policy and technical ramifications of the report. It will entail numerous tasks over the next year or more to complete this effort. We will be calling upon you and your staffs to help develop sound management solutions that are appropriate for parks.

It is important to note that the reference to policy by the team is to be broadly interpreted to include direction from the Department, the Management Policies, and the Fire Management Guidelines. All those documents and numerous fire management plans were reviewed in detail by the team, as basis for its recommendations.

It is imperative that all park managers and Regional Directors understand the findings, recommendations, and the corrective actions we plan to take. All those professionally involved must also familiarize themselves with the report (fire managers, Public Affairs and interpretive staffs) so that we can communicate this vital and complex facet of park resources management.

Attachments

Team Recommendations and Corrective Actions

The recommendations are abbreviated here but the actions taken will deal with all facets of the full recommendations of the team.

1. Agencies strengthen existing fire management policies for parks and wildernesses.

Section 910 DM of the Departmental Manual is being reviewed and will be revised by the Interior Fire Coordinating Committee in line with the team's report.

The 1988 Management Policies has been reviewed, and Chapter 4, pages 14 and 15, and Chapter 6, page 7, have been found to be compatible with the team's report as is the schematic representation of policy found in Appendix B of the Fire Management Guideline, NPS-18.

The review and revision of the much more technically detailed policy in the Fire Management Guideline have begun but are expected to continue into the early part of 1990.

2. Agencies reaffirm their policy that fires are either prescribed fires or wildfires.

This was reiterated in the 1988 Management Policies, in the directive to the field on the recertification of prescribed natural fire programs and will have an expanded discussion of the revision of the Fire Management Guideline, NPS-18.

The significant differences between prescribed natural fire and the suppression strategies represented by confine, contain, and control will be amplified in the revision of NPS-18.

3. No prescribed natural fires will be allowed until fire management plans meet current policy and the additional new requirements.

The Director imposed a freeze on all prescribed fires Servicewide on August 23, 1988. The authority to utilize prescribed burns was reinstated in the memorandum of January 9, 1989, which reiterated the ban on prescribed natural fires. All fire management plans that provided for prescribed natural fires were reviewed by a team of experts pursuant to the memorandum of March 31, 1989, which also reiterated that no prescribed natural fires would take place until the program was specifically reauthorized by the Director. This Special Directive defines the initial corrective actions to be taken and subsequently reauthorizes Regional Directors to resume their full responsibilities related to wildland fire. Twenty-six plans have been reviewed and are being revised.

Regional Directors may reauthorize resumption of prescribed natural fire programs when the following conditions have been met:

a. Fire management plans of the park must be revised in line with the plan review, concurred in for policy and technical adequacy by the Branch of Fire Management, have appropriate National Environmental Policy Act compliance, and be approved by the Superintendent and the Regional Director.

b. Agreements with neighboring agencies must be in place to define mutual actions on all fires along boundaries.

c. Contingency plans need to be developed to define the process for local, regional and national override of prescribed natural fires and the criteria for such actions.

d. Certification by the Superintendent that the park program meets these criteria and the recommendations of the Fire Management Policy Review Team.

e. Reauthorization of the program by the Regional Director, which restores the normal plan development, review and approval process defined in NPS-18.

4. Current fire management plans be strengthened: by joint planning along common boundaries; by improving prescriptions; by clearly describing the decision process; by including criteria for declaring a prescribed fire a wildfire; by clearly identifying areas that need protection from fire; by clearly stating management objectives and by identifying community outreach efforts.

The plans of the 26 parks that had previously had active prescribed natural fire programs have been reviewed and are being revised in line with the team recommendations and those of a joint Forest Service-Park Service Task Force. All other parks that plan to adopt a prescribed natural fire program will also have to meet these criteria. (See also #3.)

5. Agencies develop regional and national contingency plans to curtail or constrain prescribed natural fires under extreme conditions.

The National Wildfire Coordinating Group should develop criteria for a national contingency plan. Regional Offices are to develop criteria suitable for their geographic area, in cooperation with their partner agencies.

6. Agencies implement a daily certification process verifying that adequate resources are available to assure prescribed natural fires will remain within prescription given certain conditions and, if not, to declare these fires to be wildfires and to initiate suppression action.

The Superintendents, or their designated acting, shall certify on the Fire Situation Analysis that the prescribed natural fire is within prescription and is expected to remain so through the next 24-hour

period with the resources and funds available or declare it a wildfire and to initiate suppression action.

7. Agencies consider opportunities to use prescribed burning to complement prescribed natural fire programs and to reduce hazard fuels.

We have already initiated a program to deal with manageable accumulations of hazard fuels as a part of FIREPRO-III. The use of prescribed burning in place of prescribed natural fire will be evaluated bearing in mind the need for considerable research in order to be able to define natural fire behavior and effects and replicate it through prescription.

8. Fire program management be improved by establishing appropriate unit level fire management organizations along with regional and national support in line with FIREPRO-III.

The initial attack section of FIREPRO-III addresses seasonal personnel needs and the staffing study defines park, region and national staffing needs. Forty-one permanent positions are being established this fiscal year with the remaining positions to be filled in FY-1990. Upon completion of the second phase the Service will have achieved full staffing of park, region and national positions.

The completion of the National Park Service Fire Curriculum will define training unique to the Service and complementary to the interagency Suppression and Incident Command curricula.

Prescribed natural fire monitors have already been identified and will be available for dispatch in 1989. National standards will be adopted and other personnel trained to adequately meet Servicewide needs.

The operational analysis of FIREPRO-III will be completed and computerized to provide objective information-based management of the fire program. The completed computerized analysis may indicate the need for some adjustments in the presuppression program. The manual process used on some activities so far is the best approximation available at this time.

9. Additional interagency emphasis will be given to addressing opportunities for improving fire management programs.

The National Wildfire Coordinating Group charter will be reviewed and broadened if necessary to include prescribed fire and they will pursue a common terminology for wildland fire.

The NWCG has sponsored a Prescribed Fire and Fire Effects Working Team since 1978. The change in charter should provide added impetus necessary to address the full spectrum of prescribed fire including qualifications.

The NWCG also has been asked to identify both the acceptable suppression tactics for parks and wildernesses and for fires burning under extreme conditions.

These items are on the agenda of the June meeting.

10. Agencies are to assure that the NEPA process is followed for fire management plans to increase opportunities for public involvement and coordination with State and local governments.

The Environmental Compliance Division has already initiated review of the 26 fire plans and associated NEPA documents for the parks that had prescribed natural fire programs.

The adequacy of NEPA compliance procedures for the fire management program will also be reviewed and revised direction provided.

11. Agencies will improve interpretation and public information before and during fires.

It is essential that the communication effort focus on the need to educate the public on fire management as a whole. The threat of wildfires to park resources by the visitors and our own activities is real. Effective wildfire prevention, including Smokey Bear, needs to be increased along with fire suppression expertise. There is a fascinating role of fires of natural origin on the various natural systems of the parks. Finally, there is the opportunity to use prescribed fire with all the professional skill and technology to achieve resource objectives. All these messages need to be integrated and expressed to characterize how the National Park Service manages fire.

Public Affairs has two major roles in regard to fire. There are the routine inquiries for information on fire-related activities, and there are going fires which require current fire information on a specific active fire or fires. This latter role has evolved into a speciality itself with Fire Information Officers and teams trained and organized to provide the technically complex information in crises situations.

We will also work to improve the necessary interpretive program to be able to clearly communicate to our employees and the public the full message of wildland fire management in the parks.

12. The agencies will review the funding methods for prescribed fire and fire protection programs to improve interagency effectiveness and minimize emergency fund transfers and need for supplemental appropriations.

The Departments of the Interior and Agriculture have proposed establishment of permanent indefinite funds be established and funded from mineral and timber receipts. Major concerns have been expressed on the source of the

funding but not the principal of the indefinite fund. Decisions are expected when the FY-1990 Budget is finalized. If successful, the new fund would provide a discrete appropriated fund for all of FIREPRO-III recurring costs including permanent staffing. The Primary Work Elements associated with fire would also be revised for next year.

13. There needs to be additional research related to fire management programs.

A coordinated multiagency effort is needed to properly prioritize the number of proposals that grew out of the 1988 fire season. The Service can make its greatest contribution in the area of fire effects. Wind Cave and Yellowstone National Parks are already linked to an evolving fire effects expert system being developed by the Intermountain Fire Science Laboratory in Missoula. We will need to further expand our knowledge of fire effects if we expect to use prescribed burning with any precision as a substitute for prescribed natural fires.

14. The fire suppression in Alaska is unique and should remain that way. Future prescribed fire activity in Alaska will adhere to the recommendations in the report.

15. Allegations of misuse of policy need to be reviewed immediately and acted on as appropriate.

All known allegations have been investigated and either disproven or appropriate actions initiated.

Fire Management Review Team

May 5, 1989

Department of Agriculture

Department of the Interior

Memorandum

**To: Secretary of Agriculture
Secretary of the Interior**

**Through: Deputy Secretary, Department of Agriculture
Under Secretary, Department of the Interior**

From: Fire Management Policy Review Team

**Subject: Final Report Concerning Fire Management Policy
for National Parks and Wilderness Areas**

We are submitting our final report in accordance with the direction and schedule laid out by your predecessors. The Team's earlier report has undergone public review. The Team has reviewed the public comments and made some revisions in its report.

Both the Team's final report and the summary of public comments are attached. The Team feels that those reviewing and implementing its recommendations should also be aware of the range of public concerns reflected in the summary. Although the overwhelming majority of public comments were incorporated in or favorable to the Team's recommendations, other viewpoints are valuable in defining options and placing implementation actions in perspective.

Our recommendations include a number of significant changes in fire policy and its application to national parks and wilderness areas. While recognizing the important role of fire in natural ecosystems, we believe that these suggested improvements in fire management policy will reduce the risk of repeating the experience of the summer of 1988.

Implementation of the recommendations in this report should be assigned to and rest with line managers in the agencies involved in this effort, with coordination through established interagency fire coordinating groups. Both line managers and these interagency groups can ensure that prescribed fire policies and actions are logically integrated with the missions of the individual agencies and Federal lands, and the full range of suppression actions for wildfires.

The Team was established to review current U.S. Department of Agriculture and U.S. Department of the Interior policies on fire management in light of the extreme fire situation experienced in the Greater Yellowstone Area during the summer of 1988. The Team conducted a thorough review of fire policies for national parks and

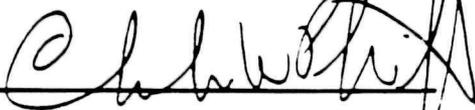
Department of Agriculture

Department of the Interior

wilderness areas. Much useful information was obtained during the formulation of our initial draft report through consultations with various elected officials, private citizens, representatives from academia, concessioners and outfitters, environmental groups, businesses, and other knowledgeable parties.

The charter establishing the Team also required that the Team's report be published in the Federal Register for public comment for a minimum of 60 days and that public hearings be held around the nation to elicit oral and written comments. A total of eleven public hearings were held. A team of Park Service and Forest Service specialists compiled comments from the 408 responses received, including those from Federal agencies, in a summary report with detailed cross-references. The Team met in Denver April 18-19, 1989 to consider the public comments and revise its report.

With the submission of this report, the Team considers its assignment to be completed. We thank you for the opportunity to serve.



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THE SECRETARY OF THE INTERIOR
WASHINGTON

JUN 1 1989

Memorandum

To: Assistant Secretary, Land Minerals Management
Assistant Secretary, Fish, Wildlife and Parks
Assistant Secretary, Indian Affairs
Assistant Secretary, Policy Budget and
Administration

From: Secretary *[Signature]*

Subject: Fire Management Policy

The policy recommendations of the Fire Management Policy Review Team are to be implemented as quickly as possible to ensure the appropriate role of fire in the ecologically sound stewardship of our National parks and federally-designated wilderness areas.

- o The Assistant Secretary--Land and Minerals Management is to take the lead in preparing appropriate changes in the Fire Management Sections of the Departmental Manual, drawing on the resources of the Interior Fire Coordinating Committee for staff assistance. The revision should be complete by October 1, 1989.
- o All Assistant Secretaries are to direct their bureaus to take the necessary actions to implement these recommendations. These include immediate action to ensure that:
 - All fires will be declared either prescribed fires or wildfires. The review team concluded that it is inappropriate to allow fires to burn free of prescriptions or appropriate suppression action.
 - The responsible line officer will certify in writing daily that prescribed natural fires are within prescription and that adequate resources are available to ensure that each prescribed fire will remain within prescription through the next 24 hours, given reasonably foreseeable weather conditions and fire behavior. If these conditions cannot be met, the fire shall be declared a wildfire and suppressed.
 - Fire management plans for parks and wilderness areas will be brought into compliance as soon as possible with the recommendations set out in the report. No prescribed

natural fires are to be allowed until fire management plans meet these standards.

- o Where coordination is necessary or desirable, Assistant Secretaries and their bureaus should work through the Assistant Secretary--Land and Minerals Management and established mechanisms, such as the Interior Fire Coordinating Committee.
- o The Interior Fire Coordinating Committee, under the direction of the Assistant Secretary--Land and Minerals Management, is to prepare reports on the status of Department-wide implementation by July 15, 1989, and again on May 1, 1990.
- o These recommendations are to be applied to all wildland fires on Department of the Interior managed lands. Any exceptions or modifications requested should be included in the July 15, 1989, report of the Interior Fire Coordinating Committee.

Attachments (3)



DEPARTMENT of the INTERIOR

news release

OFFICE OF THE SECRETARY

For Release June 1, 1989

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NEW U.S. FIRE MANAGEMENT RECOMMENDATIONS APPROVED BY SECRETARIES OF INTERIOR AND AGRICULTURE

Secretary of the Interior Manuel Lujan and Secretary of Agriculture Clayton Yeutter today directed federal officials to suppress all natural fires in national parks and wilderness areas until individual fire management plans for the areas are determined to be in compliance with new federal recommendations.

The directive was one of fifteen the two cabinet members adopted from the recommendations of the federal interagency Fire Management Policy Review Team. The team was established last year to analyze U.S. Department of the Interior and U.S. Department of Agriculture fire management policies in national parks and wilderness areas.

The recommendations affect fire management policies of USDI's National Park Service, Bureau of Land Management, Fish and Wildlife Service and Bureau of Indian Affairs, and USDA's Forest Service.

Lujan and Yeutter said many of the fifteen recommendations will require long-range planning and coordination for implementation, but that others will become effective immediately.

In addition to the recommendation to suppress for the interim all natural fires in national parks and wilderness areas, other directives to be adopted immediately include the following:

(more)

-- All wildland fires will be declared either prescribed fires or wildfires. All wildfires will be fought with appropriate suppression action.

(A prescription as it applies to a prescribed fire is a written statement of the limits under which a fire may burn in a specific geographic area. The limits include such criteria as weather conditions and fuel moisture. A prescribed fire is managed by qualified personnel in order to achieve specific resource management objectives. Prescribed fires may be started by management ignition or by natural ignition such as lightning. A wildfire is declared when a fire occurs in an area for which there is no prescription, or when a prescribed fire exceeds the prescribed conditions or geographic limits of the prescribed area.)

-- The responsible line officer will certify in writing daily that prescribed natural fires are within prescriptions, and that adequate resources are available to ensure that each prescribed fire will remain within prescribed boundaries and conditions throughout the next 24 hours, given reasonably foreseeable weather conditions and fire behavior. If these conditions cannot be met, the fire shall be declared a wildfire and suppressed.

Other review team recommendations include measures for improving interagency coordination, providing adequate staffing, training, research, equipment and funding, strengthening fire management plans, bringing those plans into compliance with the National Environmental Policy Act, and measures for increasing public involvement in policy decisions.

In reviewing federal firefighting policies, the team gathered input from state and local officials, private citizens, academic experts, concessionaires and outfitters, environmental groups and business interests. Eleven public meetings were held across the country to solicit comments on the report. The public comments and the resulting findings were incorporated and submitted in a final report to the secretaries of the Interior and Agriculture.

Recommendations from the final report are attached.

-DOI-

FINAL REPORT OF THE FIRE MANAGEMENT POLICY REVIEW TEAM

May 5, 1989

RECOMMENDATIONS

The Team recommends that the Secretaries of Agriculture and the Interior implement the following policy and direction:

1. Existing USDI and USDA fire management policies governing wilderness and parks must be strengthened and reaffirmed to limit their application to legitimate prescribed fire programs. Clarification is needed to prevent inappropriate use of fundamentally sound policies.
2. The agencies reaffirm their policies that fires are either prescribed fires or wildfires. The agencies reject as impractical and unprofessional the practice that fires can be allowed to burn free of prescriptions or appropriate suppression action.
3. USDA and USDI agencies will periodically review fire management plans for parks and wilderness for compliance with current policy, direction, and the additional requirements recommended by this report. No prescribed natural fires are to be allowed until fire management plans meet these standards.
4. Current fire management plans must be strengthened by:
 - a. Developing joint agency fire management plans, agreements, or addendums to existing plans for those areas where fires could cross administrative boundaries. Periodic joint review of these plans should occur. These will include agreement on processes and criteria to be used to make decisions on prescribed vs. wildfire and suppression strategies and tactics.
 - b. Including a comprehensive set of criteria which will be used in deciding whether or not to allow natural ignitions to burn as prescribed fires. In addition to those criteria currently required and commonly used, the following factors will be considered:
 - (1) Energy release component.
 - (2) 1000-hour fuel or duff moisture content.
 - (3) Appropriate consideration of the national and regional fire situation, including the numbers of fires and amount of available resources to suppress them.
 - (4) Limits on numbers of fires burning in the planning unit at one time.
 - (5) Limits on projected length of active perimeter and acreage burned.
 - (6) Indicators of cumulative drought effects on fire behavior.
 - (7) Potential impacts upon visitors, users, and local communities, both on and off site.

- c. Clearly describing the decision process and factors to be addressed before a fire is declared: a prescribed natural fire.
 - d. Including criteria to be used in declaring a prescribed fire a wildfire. There must be interagency agreement on these factors in areas where fire may move across administrative boundaries and shared suppression resources may be required.
 - e. Clearly identifying areas that need protection from fire, such as developments within or adjacent to wilderness and park boundaries. Fire management plans should also include actions that are to be taken, such as hazard fuel reduction or installing fuel breaks, to protect such developments or areas.
 - f. Clearly stating the management objectives being addressed by the prescribed natural fire program, including identification of specific values gained as a result of allowing natural fires to burn un-suppressed within prescribed conditions and areas.
 - g. Clearly describing the process to be used to ensure adequate public involvement and coordination with local governments in both plan development and implementation.
5. Agencies will cooperatively develop regional and national contingency plans and procedures and provide the appropriate program monitoring and direction, including curtailment of prescribed fire activities when necessary because of competition for national and regional fire suppression resources.
6. The responsible line officer or designee shall certify in writing daily that a fire is within prescription and adequate resources are available to ensure that each prescribed natural fire will remain within prescription through the ensuing 24-hour period, given reasonably foreseeable weather conditions and fire behavior. If the fire cannot be kept within prescription with available forces and funds, it shall be declared a wildfire and appropriate suppression action initiated.
7. Agencies must re-evaluate the opportunities to use management ignited prescribed fire to achieve management objectives and to complement prescribed natural fire programs. Additionally, hazard fuels must be reduced to protect selected areas, particularly developments within and adjacent to boundaries, from prescribed natural fire and high wildfire risk. Fuels will be treated along park and wilderness boundaries or internally where there are high values at risk.
8. Fire program management will be improved by establishing properly staffed regional and unit level organizations.
- a. Agencies will ensure the availability of qualified staff and knowledgeable line officers for developing, implementing, and managing prescribed fire programs.
 - b. National Park Service regional offices will establish a full-time regional fire coordinator to develop and oversee park programs in accordance with FIREPRO III, where appropriate.
 - c. Agencies will implement the concept of highly trained, well-equipped and mobile tactical teams to provide on-the-ground monitoring and management of prescribed natural fires in national parks and wilderness.
 - d. Agencies will ensure the strengthened policy is understood and implemented by all appropriate personnel.
 - e. Agency managers will assure that personnel develop a thorough understanding of the management objectives for the lands they are managing.
 - f. The National Park Service is to complete an analysis of normal fire year operations. FIREPRO III, in order to define essential minimum wildland fire program needs and to take action to meet those needs.

9. Additional interagency emphasis will be given to addressing opportunities for improving fire management programs.

- a. The National Wildfire Coordinating Group (NWCG) charter should be expanded specifically to include prescribed fire program coordination.
- b. The NWCG should take the lead in developing common terminology for prescribed burning programs and describing wildfire suppression alternatives.
- c. Agencies will develop joint criteria for selecting appropriate suppression tactics in wilderness and parks.
- d. Agencies will improve public and agency understanding and acceptance of using appropriate suppression tactics that meet fire management objectives and minimize the adverse impact on wilderness values and park resources.

10. Agencies will ensure NEPA compliance for fire management plans. Agencies will increase opportunities for public involvement and coordination with state and local government when revising or developing fire management plans.

11. Interpretation and public information before and during fires will be improved.

- a. Agencies will ensure that timely, accurate, and consistent information is provided for the public on the purpose, presence, and status of prescribed natural fires, as well as impacts on the community due to closed roads, trails, smoke, back country restrictions, and other effects.
- b. Interpretive and fire status messages are for different purposes, and agencies should strive to keep them separate and distinct. There should also be a distinction between the information needs for prescribed fires and wildfires.
- c. Agencies should ensure that the public is informed of the risks involved in fire management programs.
- d. Agencies will use common terminology for prescribed natural fire programs.

12. USDI and USDA will review the methods of funding prescribed fire and fire protection programs with the objective of improving interagency program effectiveness. Planning and presuppression activities should be financed by program funds rather than through emergency fund transfers and supplementals.

13. There is a need for additional research related to fire management programs.

- a. USDI and USDA will develop coordinated research programs utilizing the unique capabilities of both organizations.
- b. The feasibility of prescribed burning forests using stand replacement fire will be investigated and tested by implementing an appropriate interagency field research program.
- c. Research will be increased to improve the ability to predict severe fire behavior, conduct long-term weather forecasting, and identify past abnormal events.
- d. Efforts will be undertaken to develop and implement an expert system that integrates a wide array of fuel, topographic, weather, climatological, fire behavior, post-fire effects, and other information and readily displays such information in an interactive mode for the user at a computer terminal. This expert system would help to assure that important variables are not overlooked as decisions are made regarding long duration fires.

- e. Efforts will also be undertaken to develop comprehensive data bases for park and wilderness resources and provide for state of the art analyses and display as well as an efficient, continuous monitoring system to insure timely update of information.
- f. Development of additional emission factors for wildland fuels and better methods for projecting air quality impacts of prescribed and wildfires are needed, since smoke and air pollution are major considerations in deciding when to terminate prescribed natural fires and in scheduling management ignited prescribed fires.

14. If any Federal bureau engages in prescribed natural fire programs in Alaska, that bureau is responsible for adherence to the standards established as a result of these recommendations. The well-established terminology describing levels of wildfire suppression in Alaska should not be changed for the sake of conformity with the broader categories used elsewhere.

15. The agencies will cooperate fully in determining whether allegations of misuse of policy are true and take measures to ensure that any such practices not occur in the future.

Final Report

on

Fire Management Policy

May 5, 1989



REPORT ON FIRE MANAGEMENT POLICY

Table of Contents

Summary	i
Background	1
Establishment of the National Fire Management Policy Review Team	2
Concerns and Views	3
Policy Options	4
Federal Fire Policies	4
History and Experience with Natural Fire Programs	5
Findings	8
Recommendations	12
Issues Needing Further Analysis	16
Appendix	17

SUMMARY

The Fire Management Policy Review Team was established on September 28, 1988 to review national policies and their application for fire management in national parks and wilderness and to recommend actions to address the problems experienced during the 1988 fire season. The Team draft report was submitted to the Secretaries of the Interior and Agriculture on December 15, 1988. A 60 day public review and comment period, incorporating a series of public hearings, began with publication of that report in the Federal Register on December 20, 1988. Having reviewed and considered the public comments, this final report is submitted in culmination of the Team's charter.

The Fire Management Policy Review Team finds that:

- The objectives of prescribed natural fire programs in national parks and wildernesses are sound, but the policies need to be refined, strengthened, and reaffirmed. These policies permit fires to burn under predetermined conditions.
- Many current fire management plans do not meet current policies; the prescriptions in them are inadequate; and decision-making needs to be tightened.
- There are risks inherent in managing wildland fires. These risks can be reduced by careful planning and preparation. Use of planned burning and other efforts to reduce hazard fuels near high value structures and to create fuel breaks along boundaries help to reduce risks from both prescribed natural fires and wildfires.
- The ecological effects of prescribed natural fire support resource objectives in parks and wilderness, but in some cases the social and economic effects may be unacceptable. Prescribed natural fires may affect permitted uses of parks and wilderness, such as recreation, and impact outside areas through such phenomena as smoke and stream sedimentation.
- Dissemination of information before and during prescribed natural fires needs to be improved. There needs to be greater public participation in the development of fire management plans.
- Internal management processes, such as training more personnel, developing uniform terminology, and utilizing similar budget structures, would significantly improve fire management.
- Claims were heard that some managers support "naturalness" above all else, allowing fires to burn outside of prescription requirements without appropriate suppression actions.

The Team recommends that:

- Prescribed natural fire policies in the agencies be reaffirmed and strengthened.
- Fire management plans be reviewed to assure that current policy requirements are met and expanded to include interagency planning, stronger prescriptions, and additional decision criteria.
- Line officers certify daily that adequate resources are available to ensure that prescribed fires will remain within prescription, given reasonably foreseeable weather conditions and fire behavior.

- Agencies develop contingency plans to constrain the use of prescribed fire in the event or anticipation of unfavorable weather or fire conditions, or when necessary to balance competing demands for scarce fire suppression resources.
- Agencies consider opportunities to use management ignited prescribed fires to complement prescribed natural fire programs and to reduce hazard fuels.
- Agencies utilize the National Environmental Policy Act requirements in fire management planning to increase opportunities for public involvement and coordination with state and local government.
- Agencies provide more and better training to assure an adequate supply of knowledgeable personnel for fire management programs.
- Agencies review funding methods for prescribed fire programs and fire suppression to improve interagency program effectiveness.
- Additional research and analysis relating to weather, fire behavior, fire history, fire information integration, post-fire effects, and other topics be carried out so that future fire management programs can be carried out more effectively and with less risk.
- Allegations of misuse of policy be promptly investigated and acted upon as may be appropriate.

FINAL REPORT OF THE FIRE MANAGEMENT POLICY REVIEW TEAM

May 5, 1989

BACKGROUND

The 1988 fire season was severe in many parts of the western United States. Near record acreages were burned over, and more than one-half billion dollars were expended on suppression efforts. Additional resources will be required for rehabilitation and other follow-up needs.

Although the western United States experienced wildland fires exceeding recent history, the extraordinary fire situation in 1988 in the Greater Yellowstone Area was the focal point for public concern and agency criticism. Yellowstone National Park enjoys a special place in the hearts of Americans and, indeed, people worldwide. Vivid accounts of the Yellowstone fires appeared daily on television and in the newspapers from July through September. Visitor use was interrupted; smoke episodes disturbed local communities; and some summer businesses were hurt. A total of 249 separate fires were counted during the summer in the Greater Yellowstone Area, burning over a million acres. Twenty-eight of the 249 fires began as prescribed natural fires as permitted under current Department of the Interior (USDI) and Department of Agriculture (USDA) policy. Controversy arose over the adequacy of fire suppression. We have to ask ourselves:

- Is the policy allowing fire to play its natural ecological role in parks and wilderness under certain conditions flawed or inappropriate? What are the alternatives, and what are their effects?
- Should more of the fires have been declared wildfires and suppressed earlier, particularly given the drought? Should early suppression action have been more vigorous?
- Are surrounding communities being put at risks unacceptable to them by natural prescribed fire programs or from policies that restrict fire suppression tactics? Or do management ignited prescribed fires and prescribed natural fires result in an appreciable net reduction in risks?
- Are offsite effects, such as smoke and air and water pollution, acceptable, and are they adequately assessed in planning for these programs? How do they compare to offsite effects to that which would occur without such programs?
- Is the public aware of the ramifications of current policy and alternatives, such as immediate suppression of all fires or letting all fires burn unchecked?
- Did Federal and State agencies spend too much money on suppressing the fires? Would they have spent less if prescribed natural fire programs had not been implemented or if there had been better public understanding of and support for natural fires?
- Are agencies perceived as incompetent when large, numerous fires occur that partially result from natural prescribed fire programs or from policies that restrict fire suppression tactics?
- To what extent has a long-term credibility and communication problem been created between the public and agencies, and, if so, how can it be corrected?

Department of Agriculture

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- Is the large array of successful fire management programs across the nation now at risk? Activity in the Greater Yellowstone Area in 1988 has triggered public debate and professional concern about current fire policies in Federal land management agencies nationwide. Wildland fire management is a high risk activity. There are many areas of the United States where similar wildland fire disasters could occur. This risk is increasing in many areas due to the combination of fuel accumulation and the continuing development of private and commercial interests in flammable, wildland settings. Therefore, it is timely to take a national look at current wildland fire policies, their application, and implementation plans to ensure that the risks and costs to society are acceptable, in light of the alternatives.

ESTABLISHMENT OF NATIONAL FIRE MANAGEMENT POLICY REVIEW TEAM

The Secretaries of Interior and Agriculture established a Fire Management Policy Review Team on September 28, 1988. This multi-agency team, co-chaired by Interior and Agriculture representatives, was assigned the task of reviewing the current national park and wilderness fire management policies and action plans of all agencies within both Departments and recommending changes needed to address the problems experienced during the 1988 fire season. The Team met regularly with representatives of the National Fire Protection Association, the Western Governors Association, and the academic community. The Team was also directed to consult with representatives of knowledgeable organizations and individuals to arrive at proposed changes. The Team's report was originally submitted on December 15, 1988. A 60 day public comment phase began with publication of the Team's report in the Federal Register on December 20. The Team prepared this final report after thorough review of oral and written public and agency comments. Revised policy and application requirements will be implemented prior to the 1989 western fire season.

The goals of the Fire Management Policy Review Team were:

- To identify issues and concerns which arose during the 1988 fire season related to fire management policy and its application;
- To gather information from a cross-section of knowledgeable parties about current fire policy and its application;
- To develop recommendations for appropriate changes in fire policy and improvements in application; and
- To identify areas of needed additional study and analyses.

The Team began with the premise that its charter did not include detailed evaluation of the overall management direction for national parks and wildernesses and therefore focussed just on fire management policies. For example, wilderness areas and, to a more varied degree, national parks have been designated as special areas where "natural" processes can occur in perpetuity with minimum influence of human activities. This basic direction, arising from the National Park Service Organic Act of 1916 and the Wilderness Act of 1964, is usually interpreted to allow natural disturbances, such as insect infestations, disease, blowdowns, and fire, to occur without human intervention. Examining other policies that define and guide "natural" processes was not part of the Team's assignment.

With the submission of this report, the Team considers its assignment to be completed. We would be remiss if we did not recognize the contributions of our staff directors, David Behler and John Chambers, and many others who made it possible to complete this report. In particular, John Gerard of

Department of Agriculture

Department of the Interior

the National Fire Protection Association, Paul Cunningham, Vice President of the Western Governors Association, Dr. Robert Lee of the University of Washington, and Dr. Ronald Wakimoto of the University of Montana were helpful in facilitating the supply of information about fire management policies and their applications from outside organizations and academia.

CONCERNS AND VIEWS

As stated in the Team's charter, "the objective of the review process is to determine the appropriate fire policies for national parks and wildernesses which addresses the concerns expressed by citizens and public officials about the management of fires on these lands as a result of the Yellowstone fire situation."

To gather information about those concerns, individual members of the team, assisted by representatives of the National Fire Protection Association, the Western Governors Association, and the academic community, met with or called a number of knowledgeable persons, including governors, local government officials, concessioners and outfitters, individuals with businesses in nearby communities, organizations with an interest in parks and wildernesses, academicians, and others. The Team also reviewed letters, summaries of correspondence, and many newspaper and journal articles related to fire management policy.

The concerns can be summarized as follows:

- Definition of prescribed fire conditions and limitations was inadequate.
- There was little opportunity for citizen participation in the development of fire management plans.
- The interdependence of park wilderness and nearby communities was ignored in the implementation of fire management programs.
- Adequate communication and information before and during fires, whether wildfires or prescribed, was lacking.
- There appeared to be waste in the application of fire management policies, in natural resources that might have been utilized rather than burned, in the on- and off-site effects of fire on available recreation sites, wildlife habitat and forage, soil erosion, and damage to watershed, and in the costs of firefighting.
- An inadequate number of management ignited prescribed fires have been conducted to significantly reduce the amount of hazard fuels.
- There were unnecessary interagency conflicts.
- Authority for action in fire management needed to remain with line officials in the field, not centralized in Washington.

There are also concerns with strongly held conflicting views. The three principal areas are:

- the definition of "naturalness" and its application in driving fire management policy;

Department of Agriculture

Department of the Interior

- the extent to which management ignited prescribed fires are used to reduce hazard fuels in the Northern Rockies; and
- whether the fires in 1988 were allowed to burn more extensively than they should have before suppression actions were taken.

Not all comments were critical of Federal efforts to manage fire:

- The role of fire in managing vegetation and wildlife habitat was noted by many.
- The bravery and competence of fire suppression personnel were frequently extolled.
- Examples were mentioned of individual and agency actions to inform the public, to protect life and property, and to minimize disruptions during and after the fires.
- There are many positive effects from prescribed natural fires. Overreaction to the events of 1988 should not be used to justify severe curtailment of their use.

POLICY OPTIONS

Fire management policy options range from immediate control of all fires to allowing all wildland fires to burn. The team considered the full range following its discussion with interested parties and agency personnel.

The great majority of comment from knowledgeable people indicated support for the careful use of management ignited prescribed fires and prescribed natural fires, in accordance with publicly reviewed management plans. There was also general agreement that such policy must be executed in ways that give the fullest possible assurance that human lives and property or special resources will not be lost or seriously impaired.

FEDERAL FIRE POLICIES

Traditionally, the fire policies of Federal land management agencies were to control all wildland fires as promptly as possible. When initial attack failed in controlling a fire the first day, personnel and equipment were organized to control the fire by 10:00 a.m. the succeeding day.

Current fire management policies among the Federal agencies reflect similar evolutions and are similar in scope and intent. Fire management programs and activities are conducted in support of land and resource management plans and objectives. Two kinds of wildland fires are recognized: prescribed fires and wildfires. Prescribed fires may be ignited by managers, or naturally occurring fires may be allowed to burn, under specified conditions to achieve established management objectives. Any other fire is considered a wildfire, and appropriate suppression action is taken on all wildfires. Suppression strategies considered in determining the appropriate action range from prompt control, minimizing acreage burned, to more indirect suppression action to contain or confine wildfires when these alternatives are less costly than immediate control in terms of suppression cost, damage from fire, and other adverse impacts.

Department of Agriculture

Department of the Interior

These policies as applied to parks and wildernesses, implemented in 1968-85, allow for the prescribed use of fire, either by natural causes or management ignited, in support of land management objectives. The suppression of all wildfires is required, using economically efficient and environmentally compatible methods. All prescribed fires require pre-planning and decision criteria addressing expected fire behavior and effects.

Prescribed fires may be used to achieve agency land or resource management objectives defined in fire management plans. The following considerations are to be addressed in such plans: management objectives for the area, historic fire occurrence, natural role of fire, proposed degree of suppression, expected fire behavior, acceptable suppression techniques, adequate buffer zones, smoke management, and effects on adjacent land owners.

Prescribed fires are to be conducted only when the following conditions are met:

- They are conducted by qualified personnel under written prescriptions (prescribed fire plan).
- They are monitored to assure they remain within prescription.

Prescribed fires that exceed the limits of an approved fire plan will be reclassified as a wildfire. Once classified as a wildfire, the fire will be suppressed and can not be returned to prescribed fire status.

The important implications of these policies for parks and wilderness areas are:

- It allows managers to restore and maintain the natural role of fire on land when the land management objective is to perpetuate natural processes and values.
- Fire can be used as an important management tool to reduce fuel accumulation, control fire hazard around developments and along boundaries, and to meet other management needs.
- All fires are treated as wildfires, subject to appropriate suppression action, unless a plan is in place that describes the conditions under which prescribed fire will be allowed to burn. Both natural and management-caused ignitions are allowed.
- A prescribed fire must be declared a wildfire when it exceeds prescribed conditions.
- There is flexibility for fire management plans to address the unique characteristics and objectives of specific parks and wildernesses.

Fire management plans for national parks and wilderness areas are subject to National Environmental Policy Act (NEPA) compliance.

HISTORY AND EXPERIENCE WITH NATURAL FIRE PROGRAMS

Following prescribed burning experience in the Everglades in the 1950's, the National Park Service began to change its fire suppression and prescribed burning policies in 1968 to accept a more natural role of fire in park ecosystems. Lightning-caused fires were allowed to burn under specified conditions in Sequoia-Kings Canyon National Parks that year, followed by a similar program in another 7 parks between 1968 and 1972. In the decade that followed, another 26 parks began some parts of the prescribed fire program (Appendix, Table 1).

Department of Agriculture

Department of the Interior

The purpose for this policy change was to restore fire to a more natural ecological role. "Naturalness" is defined as those dynamic processes and components which would likely exist today, and go on functioning, if technological humankind had not altered them. (For those concerned about "exclusion of man from nature," the term "wildness" may be more satisfactory; but it is not likely to displace the word "naturalness" in the common vernacular.)

No ecosystem today is totally unaltered by technological humankind. However, extensive areas in which the achievement and maintenance of naturalness is a basic purpose are increasingly important to humankind. These areas are found primarily in national parks and wildernesses. They serve as invaluable scientific benchmarks; and the uniqueness imparted by their natural qualities is irreplaceable as a source of human inspiration and enjoyment. Those natural qualities differ in each area. They are compromised by the effects of necessary and appropriate provisions for enjoyment of parks, the impacts of other uses under legislative mandates governing non-park wilderness and by potential adverse impacts outside of unit boundaries. Each unit in its management plan describes how it will attain the objective of naturalness.

In those parks and wildernesses where fire has been a historic component of the environment, it is critical to management objectives to continue that influence. Any attempts to exclude fire from these lands can lead to major unnatural changes in vegetation and wildlife from that which would occur without fire suppression, as well as creating fuel accumulation that can lead to uncontrollable, sometimes very damaging, wildfire. Current fire management policy allows for inclusion of naturally occurring fire on these lands, to the extent possible, as well as the use of management ignited prescribed burns to bring these areas back into a more natural condition of fire hazard and occurrence, and to reduce the risk of damage from fire to improvements within these areas and to improvements and resources on adjacent lands.

Lightning fires are permitted to burn in designated zones within 46 areas managed by the National Park Service. Nearly 58 million acres of national parks are classified natural fire zones, including 50 million acres in Alaska alone. A total of 58 national park areas use management-ignited prescribed burns to simulate the role of natural fire in certain ecosystems.

The USDA Forest Service also began allowing lightning-caused fires to play a more natural role in wilderness in 1972, when exceptions to the policy of suppressing all fires were approved by the Chief. By 1976, policy exceptions allowing lightning-caused fires to burn under carefully prescribed conditions had been put into effect in parts of the Selway-Bitterroot, Gila, and Teton wildernesses of Idaho, New Mexico and Wyoming.

In 1978, authority to approve wilderness fire management plans was delegated to Regional Foresters as part of a revised policy that called for "fire management programs" as contrasted with previous "fire control programs." This revision--which is current policy--provided for "well-planned and executed fire protection and fire use programs that are cost effective and responsive to land and resource management goals and objectives".

Forest Service wilderness fire management policy was again revised in 1985, following public review and comment, clarifying wilderness fire management objectives and the use of prescribed fire within wilderness. Forest Service ignited prescribed fires were authorized when necessary to meet the objectives of (1) allowing lightning fires to play their natural role to the extent possible and (2) reducing the risk of wildfire within wilderness to life and property, and to life, property, and resources outside of wilderness to an acceptable level.

Department of Agriculture

Department of the Interior

The Bureau of Land Management uses prescribed fire extensively to meet resource and fire management objectives. However, the use is almost exclusively through planned management ignitions. Prescribed natural fire is generally not used due to the predominance of fuel types having a high rate of spread (i.e. grass and brush) commonly found on Bureau-administered lands. Those few fire management plans that identify prescribed natural fire as a management strategy do so for lands located adjacent to wilderness managed by other agencies. The operational plans for these prescribed natural fire areas were developed through coordinated fire planning efforts with the adjacent federal wilderness management agency.

The Bureau of Land Management issued its first policy for the management of lands designated as wilderness study areas in 1979. This policy, which addressed fire management practices, was revised in 1987. Fire management policy for designated wilderness areas was issued in 1981.

The Fish and Wildlife Service manages seventy designated wilderness areas containing approximately 19 million acres; 97 percent of this acreage is in national wildlife refuges located in Alaska. Fires on these refuge wilderness areas are dealt with under the provisions of the Alaska Interagency Fire Plans, which were prepared in cooperation with Federal and State agencies as well as Alaskan Native Corporations. The experience of the period 1982-1988 demonstrates that fires which occur within these wilderness areas have been adequately handled to meet the objectives outlined in these coordinated plans.

Although the Bureau of Indian Affairs has only one Federally designated wilderness area, several tribes have designated areas within their reservations as tribal wilderness. Management of these tribal wilderness areas are based on tribally developed or approved plans and, in most instances, follow closely that outlined in the Wilderness Act of 1964. Lightning-caused fires occurring within these designated areas may be allowed to burn provided they meet **all** requirements and constraints outlined in the area specific fire management plans. In addition, the use of management ignited prescribed fires to reduce natural fuel buildup has been widely practiced since the early 1940's. Records indicate that only one lightning-caused fire has occurred within the single Federally designated wilderness area on Indian lands, burning an area of approximately 350 acres. No attempt has been made, to date, to separate data on fires occurring on tribally designated wilderness areas from other fires occurring within reservation boundaries.

Results in National Parks:

Since the beginning of these programs in 1968 until 1987, more than 1600 lightning-caused fires have been permitted to burn more than 320,000 acres of national park land. Only one serious problem had developed--the Ouzel Fire on the Rocky Mountain National Park which threatened the adjacent community of Allens Park, Colorado. At the same time, more than 1400 prescribed burns were ignited by the park staff in 46 national park areas that covered more than 325,000 acres. The burns were designed mainly to manage vegetation by simulating the natural role of fire in reducing fuel accumulations in order to modify plant succession and to help maintain ecosystem processes. Some of the benchmark fire management programs in national parks are those found in Sequoia-Kings Canyon and Yosemite National Parks in the Sierra Nevada, the Everglades National Park in Florida and Yellowstone and Grand Teton National Parks in the Rockies.

Results in National Forest wilderness:

Since 1972 when the USDA Forest Service began permitting lightning-caused fires to play a more natural role in wilderness, 503 prescribed natural fires have burned nearly 210,000 acres within wilderness areas in the Northern and Intermountain Regions, the Forest Service Regions having the most active prescribed natural fire management programs. Of these fires, 23 became wildfires burning

Department of Agriculture

Department of the Interior

an additional 544,000 acres (14 of these escaped prescribed natural fires occurred in 1988). Four management ignited prescribed fires, burning 4,424 acres, have been conducted by the Forest Service in three different wilderness areas since these were first permitted in 1985. (Appendix, Table 2 and 3.)

FINDINGS

After review of policies, guidelines, fire management plans, draft fire reviews of the 1988 Greater Yellowstone fires, and information obtained from written and oral communication with both Federal personnel and knowledgeable citizens, the Team has determined the following:

1. The prescribed natural fire policy in Federal agencies was designed to allow fires to play a more natural role in national parks and wilderness areas. There have been many notable successes in application of this policy. However, in some cases this policy has been interpreted to allow managers to manage prescribed natural fires with essentially no prescriptions.

- Restoration and maintenance of naturalness and natural processes are used as primary objectives of wilderness and national park prescribed fire programs. Exclusive focus on these objectives can lead to inadequate consideration for the positive and negative impacts of fire on uses such as recreation, wildlife habitat, grazing, and water quality.
- Current fire policy or guidelines are subject to abuse in that plans are developed and implemented that don't meet the literal requirements of policy.
- Some park and wilderness managers are reluctant to define size limits and specific prescriptions limiting prescribed natural fires.
- Misuses of the prescribed natural fire program could eliminate the program itself--and lose the benefits that derive from it.

2. The Team heard from agency employees who would welcome an expansion of policy to allow for fires to burn free of prescriptions and without being declared wildfires as long as such fires are not expected to cross administrative boundaries of a park or wilderness or endanger human life and property.

3. Although there are many outstanding examples of fire management plans in all agencies, the team found that some plans do not meet current agency or departmental policy and contain inadequate prescriptions.

- Some plans do not include the required set of prescription criteria for prescribed natural fire programs.
- Some plans do not adequately address suppression resource availability, values at risk outside of parks and wilderness, and the number of fires that can be managed at one time.
- Plans do not address cumulative effects of drought and other potentially important considerations.

Department of Agriculture

Department of the Interior

4. Some fire management prescriptions do not place adequate limits on fire management decisions.
 - Some prescribed fires that were ultimately declared wildfires were interpreted to be within prescription until they reached an arbitrary limitation of a boundary of a park or wilderness boundary.
 - Insufficient attention has been given to values at risk, both inside and outside parks and wilderness boundaries.
 - There was insufficient consideration of the cumulative risks associated with multiple fires, large fires, or fires with especially active perimeters.
 - Insufficient attention was given to the potential cost and damage associated with a prescribed fire later becoming a wildfire requiring suppression action.

5. Beyond being brought up to current standards, fire management programs would be strengthened by a combination of improved decision criteria in plans, additional fire expertise, and more direct line officer involvement.
 - Critical decision points (e.g. decision trees) are often not identified in plans.
 - Lack of resident fire expertise in some locations is critical.
 - Lack of coordination of policy application for prescribed natural fire programs among and within agencies results in disparate treatment of fires and inconsistent decisions.
 - Documentation of decisions is often lacking and does not demonstrate the involvement of some agency line officers.
 - Some fire management plans do not include the latest technology.
 - Plans are not complete in terms of indicators of long-term drought and impact on shared suppression resources.
 - Variations in planning and decision processes result in decisions that appear illogical, create political and public concern for competence of the agencies, and render decisions to limit fire size ineffective.
 - Prescribed natural fire programs do not adequately consider the impact on other interagency programs and resources.

6. The severity of the 1988 fire season in some areas of the West (the most severe on record in the Greater Yellowstone Area) revealed the risks inherent in managing wildland fires. These risks can include high fire suppression costs as well as unacceptable social, environmental and economic impacts, and natural resource losses. The extraordinary weather conditions of last summer resulted in fire behavior that limited the effectiveness of fire suppression decisions and actions, and at times put managers in the position of being responsible for situations beyond their control. Recognition of the fire weather situation and trends, in some cases, was hampered by the departure of fire management plans from policy by not including prescriptions which would have provided managers a better basis for recognizing the severity of the situation.

Department of Agriculture

Department of the Interior

7. Prescribed fire using planned management ignitions complements the use of, and reduces the risk from, prescribed natural fires to achieve management objectives. However, there are factors constraining the use of management ignited prescribed fire in some areas.

- Management ignited prescribed fires have been used successfully in some national parks and wilderness to meet management objectives, reduce hazard fuel build-up, and establish fuel breaks.
- Management ignited prescribed fires have not been used in some cases due to the perceived risks from the results of high intensity crowning fires. Also, up-front budgetary costs have limited the use of management ignited prescribed fires; these have rarely been used in wilderness.
- Some people strongly support management ignited prescribed fires as a substitute for prescribed natural fires; others believe strongly that appropriate objectives cannot be achieved without prescribed natural fire.

8. The reduction of hazard fuels around structural developments, parks wilderness boundaries, and private inholdings enhances the ability to protect these values at risk and reduces costs of wildfire suppression and prescribed natural fire.

9. Agency personnel development and training programs are not maintaining the number of personnel and levels of knowledge required to ensure proper and consistent application of policies and procedures.

- There is an inadequate number of professional managers in field locations with an understanding of fire management and fire management policies and practices.
- Some line officers are not requiring adherence to standards contained in fire management plans.
- Inconsistent application of required processes, such as the Escaped Fire Situation Analysis, leads to poor decisions.
- Some incident management teams, fire professionals, and line officers lack knowledge of suppression tactics necessary under extreme conditions.
- Consideration of suppression costs and potential damage related to fire suppression alternatives and decisions is not adequately documented in Escaped Fire Situation Analyses.
- Some agency fire staffs are not able to maintain expertise in fire management because of infrequent fire occurrences at their location and lack of career mobility or opportunity to gain experience in other locations.

10. The environmental effects of prescribed natural fires within wilderness and park boundaries are usually consistent with natural resource objectives for these lands. However, in some cases the social and economic impacts outside these boundaries may be unacceptable due to smoke, threats to public safety, reduced tourism, loss of income and jobs, and altered water quality and quantity.

11. Inconsistent dissemination of information, inadequate public participation, and a perception of failure to consider some social, environmental, and economic impacts on local businesses and communities are strong issues with the public and political leaders.

Department of Agriculture

Department of the Interior

- There is a great diversity of views within and outside agencies regarding the basis and the primary objectives of prescribed natural fire programs.
- Adequate public involvement may not have occurred in the development of some prescribed natural fire management plans and the public may not have fully understood the risks inherent in prescribed natural fire management.
- The primary message communicated by agencies continued to be the biological value of prescribed natural fire to vegetation and wildlife even after the fires had been declared to be wildfires.
- There was a lack of uniform, consistent, adequate information on the location of the fires, planned fire management actions, and their implications for the public in terms of road closures, smoke, and other effects on local populations and visitors.

12. Budget structure and funding in the Departments of Agriculture and Interior create the following effects:

- The level of expertise and professionalism needed for the broad spectrum of fire management and use program may not be available to support management objectives in all agencies.
- Dissimilarities between the two departments in the ways in which programs are funded and differences in agencies' terminology inhibit the ability to cooperate and coordinate in prescribed fire programs on mutual boundaries.
- These also cause disparate treatment of naturally occurring fires in determining whether they are designated as prescribed fires or wildfires. Forest Service and Bureau of Land Management policies require that prescribed fires be managed with appropriated funds from the benefiting program. The National Park Service manages prescribed natural fires with emergency funds.
- Hazard fuel reduction programs have not been adequately funded in some cases.
- Very limited appropriated funds are allocated to develop expertise and apply prescribed fire in parks and wildernesses.
- There is an inadequate number of professionals in Federal agencies in fire management programs. Fire management planning and application is a collateral duty at some major parks.
- Agency budgets for presuppression activities have declined in real dollars in recent years.
- National Park Service is completing an analysis of normal fire year operations, FIREPRO III, in order to define essential minimum wildland fire program needs.

13. Lack of clear definition and inconsistent implementation of "light hand on the land" suppression tactics raise serious questions over the management of fires in 1988.

- The public, employees, and cooperators became confused by mixed messages about the intensity of suppression efforts and the objectives to be achieved.
- Incident commanders received unclear direction about the use of certain suppression tactics, which were sometimes in conflict with the selected suppression alternative.

Department of Agriculture

Department of the Interior

14. Research and analysis are needed to provide tools for management of fire management programs.
- Normal climatic patterns are ordinarily used for projections, yet prolonged drought periods may result in changes in weather patterns that have an abnormal effect on fires and cause an inability to project fire behavior accurately.
 - There is little agreement on whether management objectives can be achieved through management ignited prescribed fires when they result in high intensity crown fire.
 - Analyses of fire history, occurrence, size, and effects are insufficient for many areas.
 - Reliable methods for long-term weather prediction do not exist.
 - There are a number of issues concerning the natural fire regime and fire management in subalpine ecosystems vegetated predominantly by lodgepole pine. These include such topics as whether fire behavior and effects from the 1988 fires were as predicted from pre-1988 research and modelling, whether prescribed burning in these ecosystems can be implemented to establish mosaics that would inhibit large scale, uncontrollable fires, and whether conservation of biotic diversity on a shorter scale (less than 300 to 400 years) is feasible and/or desirable.
15. The Review Team finds that the multi-agency program by which fire management is accomplished cooperatively on Federal and State lands in Alaska is consistent with Federal policies. It has proven successful and is improved through frequent review and modification, a process which should continue, with public involvement as recommended in this report.
16. The Team heard claims that some managers with philosophies advocating naturalness above all else intentionally allow fires to burn outside of prescriptions and do not take the appropriate suppression actions required on a wildfire--allegations that these fires are allowed to burn freely as long as the fire is not expected to leave the boundary of a park or wilderness. These allegations were not supported by anything in the draft fire reviews received to date. The Team did not have the mandate to investigate and verify or disprove the allegations.

RECOMMENDATIONS

The Team recommends that the Secretaries of Agriculture and the Interior implement the following policy and direction:

1. Existing USDI and USDA fire management policies governing wilderness and parks must be strengthened and reaffirmed to limit their application to legitimate prescribed fire programs. Clarification is needed to prevent inappropriate use of fundamentally sound policies.
2. The agencies reaffirm their policies that fires are either prescribed fires or wildfires. The agencies reject as impractical and unprofessional the practice that fires can be allowed to burn free of prescriptions or appropriate suppression action.
3. USDA and USDI agencies will periodically review fire management plans for parks and wilderness for compliance with current policy, direction, and the additional requirements recommended by this report. No prescribed natural fires are to be allowed until fire management plans meet these standards.

Department of Agriculture

Department of the Interior

4. Current fire management plans must be strengthened by:
 - a. Developing joint agency fire management plans, agreements, or addendums to existing plans for those areas where fires could cross administrative boundaries. Periodic joint review of these plans should occur. These will include agreement on processes and criteria to be used to make decisions on prescribed vs. wildfire and suppression strategies and tactics.
 - b. Including a comprehensive set of criteria which will be used in deciding whether or not to allow natural ignitions to burn as prescribed fires. In addition to those criteria currently required and commonly used, the following factors will be **considered**:
 - (1) Energy release component.
 - (2) 1000-hour fuel or duff moisture content.
 - (3) Appropriate consideration of the national and regional fire situation, including the numbers of fires and amount of available resources to suppress them.
 - (4) Limits on numbers of fires burning in the planning unit at one time.
 - (5) Limits on projected length of active perimeter and acreage burned.
 - (6) Indicators of cumulative drought effects on fire behavior.
 - (7) Potential impacts upon visitors, users, and local communities, both on and off site.
 - c. Clearly describing the decision process and factors to be addressed before a fire is declared a prescribed natural fire.
 - d. Including criteria to be used in declaring a prescribed fire a wildfire. There must be interagency agreement on these factors in areas where fire may move across administrative boundaries and shared suppression resources may be required.
 - e. Clearly identifying areas that need protection from fire, such as developments within or adjacent to wilderness and park boundaries. Fire management plans should also include actions that are to be taken, such as hazard fuel reduction or installing fuel breaks, to protect such developments or areas.
 - f. Clearly stating the management objectives being addressed by the prescribed natural fire program, including identification of specific values gained as a result of allowing natural fires to burn un-suppressed within prescribed conditions and areas.
 - g. Clearly describing the process to be used to ensure adequate public involvement and coordination with local governments in both plan development and implementation.
5. Agencies will cooperatively develop regional and national contingency plans and procedures and provide the appropriate program monitoring and direction, including curtailment of prescribed fire activities when necessary because of competition for national and regional fire suppression resources.

Department of Agriculture

Department of the Interior

6. The responsible line officer or designee shall certify in writing daily that a fire is within prescription and adequate resources are available to ensure that each prescribed natural fire will remain within prescription through the ensuing 24-hour period, given reasonably foreseeable weather conditions and fire behavior. If the fire cannot be kept within prescription with available forces and funds, it shall be declared a wildfire and appropriate suppression action initiated.

7. Agencies must re-evaluate the opportunities to use management ignited prescribed fire to achieve management objectives and to complement prescribed natural fire programs. Additionally, hazard fuels must be reduced to protect selected areas, particularly developments within and adjacent to boundaries, from prescribed natural fire and high wildfire risk. Fuels will be treated along park and wilderness boundaries or internally where there are high values at risk.

8. Fire program management will be improved by establishing properly staffed regional and unit level organizations.

- a. Agencies will ensure the availability of qualified staff and knowledgeable line officers for developing, implementing, and managing prescribed fire programs.
- b. National Park Service regional offices will establish a full-time regional fire coordinator to develop and oversee park programs in accordance with FIREPRO III, where appropriate.
- c. Agencies will implement the concept of highly trained, well-equipped and mobile tactical teams to provide on-the-ground monitoring and management of prescribed natural fires in national parks and wilderness.
- d. Agencies will ensure the strengthened policy is understood and implemented by all appropriate personnel.
- e. Agency managers will assure that personnel develop a thorough understanding of the management objectives for the lands they are managing.
- f. The National Park Service is to complete an analysis of normal fire year operations, FIREPRO III, in order to define essential minimum wildland fire program needs and to take action to meet those needs.

9. Additional interagency emphasis will be given to addressing opportunities for improving fire management programs.

- a. The National Wildfire Coordinating Group (NWCG) charter should be expanded specifically to include prescribed fire program coordination.
- b. The NWCG should take the lead in developing common terminology for prescribed burning programs and describing wildfire suppression alternatives.
- c. Agencies will develop joint criteria for selecting appropriate suppression tactics in wilderness and parks.
- d. Agencies will improve public and agency understanding and acceptance of using appropriate suppression tactics that meet fire management objectives and minimize the adverse impact on wilderness values and park resources.

Department of Agriculture

Department of the Interior

10. Agencies will ensure NEPA compliance for fire management plans. Agencies will increase opportunities for public involvement and coordination with state and local government when revising or developing fire management plans.
11. Interpretation and public information before and during fires will be improved.
 - a. Agencies will ensure that timely, accurate, and consistent information is provided for the public on the purpose, presence, and status of prescribed natural fires, as well as impacts on the community due to closed roads, trails, smoke, back country restrictions, and other effects.
 - b. Interpretive and fire status messages are for different purposes, and agencies should strive to keep them separate and distinct. There should also be a distinction between the information needs for prescribed fires and wildfires.
 - c. Agencies should ensure that the public is informed of the risks involved in fire management programs.
 - d. Agencies will use common terminology for prescribed natural fire programs.
12. USDI and USDA will review the methods of funding prescribed fire and fire protection programs with the objective of improving interagency program effectiveness. Planning and presuppression activities should be financed by program funds rather than through emergency fund transfers and supplementals.
13. There is a need for additional research related to fire management programs.
 - a. USDI and USDA will develop coordinated research programs utilizing the unique capabilities of both organizations.
 - b. The feasibility of prescribed burning forests using stand replacement fire will be investigated and tested by implementing an appropriate interagency field research program.
 - c. Research will be increased to improve the ability to predict severe fire behavior, conduct long-term weather forecasting, and identify past abnormal events.
 - d. Efforts will be undertaken to develop and implement an expert system that integrates a wide array of fuel, topographic, weather, climatological, fire behavior, post-fire effects, and other information and readily displays such information in an interactive mode for the user at a computer terminal. This expert system would help to assure that important variables are not overlooked as decisions are made regarding long duration fires.
 - e. Efforts will also be undertaken to develop comprehensive data bases for park and wilderness resources and provide for state of the art analyses and display as well as an efficient, continuous monitoring system to insure timely update of information.
 - f. Development of additional emission factors for wildland fuels and better methods for projecting air quality impacts of prescribed and wildfires are needed, since smoke and air pollution are major considerations in deciding when to terminate prescribed natural fires and in scheduling management ignited prescribed fires.

Department of Agriculture

Department of the Interior

14. If any Federal bureau engages in prescribed natural fire programs in Alaska, that bureau is responsible for adherence to the standards established as a result of these recommendations. The well-established terminology describing levels of wildfire suppression in Alaska should not be changed for the sake of conformity with the broader categories used elsewhere.

15. The agencies will cooperate fully in determining whether allegations of misuse of policy are true and take measures to ensure that any such practices not occur in the future.

ISSUES NEEDING FURTHER ANALYSES

Following are fire management policy issues that would require more time than the team had available to work out suitable solutions. Resolution of these issues is not critical to fire management readiness for the 1989 fire season, but they should be pursued during the further evolution and improvement of Federal fire management policy and application. They are:

1. Validation of the relationship between current fire management information system components (i.e., drought index, energy release component, 1000 hour fuel moisture, etc.) with actual fire occurrence, severity and size is needed.
2. Development of compatible interagency fire planning methods.
3. Determination of the effect of budgetary constraints and funding sources on fire management programs.
4. Determination of the current and future effects of residential and commercial development on the ability to design and implement prescribed fire programs, including examination of the interrelationship between fire management plans and local planning and zoning functions.
5. Inventory of forest types and locations subject to infrequent but intense large fires, their historic occurrence in terms of drought cycles, and definition of policies to be applied in each case relative to desired results to be achieved.
6. Examination of the adequacy and consistency of application of current fire suppression and prescribed fire cost analysis and risk assessment procedures.
7. Development of interagency guidelines for "light hand on the land" suppression tactics by the National Wildfire Coordinating Group.
8. Development of a better understanding of agency objectives as they relate to fire planning standards and decision criteria.
9. Reexamination as to whether human-caused fires (not ignited by management) should be managed as prescribed fires in certain well-defined circumstances.
10. Additional studies of fire history, occurrence, and size in parks and wildernesses.

APPENDIX - Historical Data of Prescribed Fire Programs of the USFS and NPS.

TABLE 1. PRESCRIBED FIRE OCCURRENCE THE NATIONAL PARKS SERVICE 1968-1987
(data obtained from NPS Wildland Fire Management Computer System, 1988)

NPS Units by Region	Area Size Acres	PRESCRIBED FIRE		Management	
		Lightning Ignitions No. Acres		Ignitions No. Acres	
<u>Alaska Region</u>					
Bering Land Bridge	2,784,960	6	452		
Denali	6,028,091	23	44,110		
Gates of the Arctic	8,472,517	23	8,560		
Noatak	6,574,481	13	28,961		
Wrangell-St. Elias	13,188,325	7	134		
Yukon-Charley Rivers	2,523,509	13	44,778		
<u>Mid-Atlantic Region</u>					
Delaware Water Gap	66,637			2	11
<u>Midwest Region</u>					
Fort Larned	718			20	572
George Washington Carver	210			14	66
Herbert Hoover	187			7	50
Homestead	195			20	327
Indiana Dunes	13,815			8	333
Isle Royale	571,790	6	1		
Ozark	80,788			69	889
Pipestone	282			25	708
Scotts Bluff	2,997			6	1,871
<u>National Capital Region</u>					
George Washington Memorial Parkway	7,131			2	1
Rock Creek	1,754			5	1
<u>North Atlantic Region</u>					
Cape Cod	43,556			8	3
<u>Pacific Northwest Region</u>					
Crater Lake	183,224	44	682	21	5,402
John Day Fossil Beds	14,014			3	15
North Cascades	504,781	58	231		
Olympic	921,935	3	179		
San Juan Island	1,752			3	1
Whitman Mission	98			6	105

PREScribed FIRE

Parks and Monuments by Region	Area Size Acres	Lightning Ignitions No. Acres	Management Ignitions No. Acres
<u>Rocky Mountain Region</u>			
Badlands	243,302		5 4,543
Dinosaur	211,142	193 4,176	2 1,441
Fort Laramie	833		4 165
Glacier	1,013,572	4 2	
Grand Teton	310,521	32 7,759	
Rocky Mountain	265,200	6 1,051	
Wind Cave	28,292	6 309	26 7,630
Yellowstone	2,219,785	152 34,140	
Zion	146,598	24 335	5 37
<u>Southeast Region</u>			
Big Cypress	570,000	37 9,829	168 68,253
Biscayne	173,039		4
Blue Ridge Parkway	85,993		3
Cape Hatteras	30,319		7 99
Chickamauga and Chattanooga	8,103		5 2
Cumberland Island	36,415		8 216
Everglades*	1,398,938	337 128,255	245 185,337
Shiloh	3,848		3 11
* Research begun in 1951			
<u>Southwest Region</u>			
Arkansas Post	389		9 52
Bandelier	32,737	5 34	21 311
Big Bend	735,416	26 462	8 24
Big Thicket	85,774	4 40	33 6,225
Buffalo	94,219		13 285
Carlsbad Caverns	46,755	14 3,063	7 80
Fort Union	721		2 2
Jean Lafitte	20,000		2 77
Lake Meredith	44,978		10 160
Lyndon B. Johnson	1,571		4 109
Sunset Crater	3,040	2 1	
Wupatki	35,253	2 4	

PRESCRIBED FIRE

Parks and Monuments by Region	Area Size Acres		Lightning Ignitions No. Acres	Management Ignitions No. Acres
<u>Western Region</u>				
Golden Gate	73,117			6 17
Grand Canyon	1,218,375	81	3,723	19 3,148
Joshua Tree	559,954	4	20	3 12
Lassen Volcanic	106,372	18	9	
Lava Beds	46,560	3	32	4 461
Pinnacles	16,265	8	1,993	86 7,861
Point Reyes	71,046	12	653	57 2,504
Redwood	110,178	2	2	6 135
Saguaro	83,574	36	42	3 105
Santa Monica Mountains	150,000			3 105
Sequoia and Kings Canyon	863,683	384	32,518	48 8,247
Whiskeytown	42,503			8 99
Yosemite	761,170	333	34,998	75 26,802

	Totals	1,921	391,538	1,131 334,931

**TABLE 2. FOREST SERVICE WILDERNESS FIRE MANAGEMENT
PROGRAM HISTORY AND ACCOMPLISHMENTS
(Regions 1 and 4)**

The following information is provided for wilderness areas in Regions 1 and 4. These two Regions have the most active wilderness prescribed fire programs in the Forest Service.

WILDERNESS FIRE MANAGEMENT HISTORY, 1972-1988.

	# Prescribed Natural Fires	Acres Burned	# That Became Wildfires	Acres Burned	# Wildfires Suppressed	Acres Burned
R-1	378	160,583	9	324,126	1,402	291,967
R-4	135	49,035	14	219,813	616	550,685
Total	<u>503</u>	<u>209,618</u>	<u>23</u>	<u>543,939</u>	<u>2,018</u>	<u>842,652</u>

TABLE 3. FOREST SERVICE IGNITED PRESCRIBED FIRES IN WILDERNESS

	<u>YEAR</u>	<u># FIRES</u>	<u>ACRES BURNED</u>
<u>REGION 3</u> Chiricahua Wilderness	1988	1	606
<u>REGION 8</u> Bradwell Bay Wilderness	1988	2	3,000
<u>REGION 9</u> Hercules Glades Wilderness	1987	1	818
<u>TOTAL-ALL REGIONS</u>		4	4,424

Note: Some prescribed burning was done in the LaVentana Wilderness in California prior to 1985 as authorized through legislation establishing this wilderness.

**SUMMARY OF PUBLIC COMMENTS
ON THE
FIRE MANAGEMENT POLICY REPORT**

April 1989

**United States Department of the Interior / National Park Service
United States Department of Agriculture / Forest Service**

INTRODUCTION

The Fire Management Policy Review Team was established in September 1988 to review national policies and their application for fire management in national parks and wilderness and to recommend actions to address the problems experienced during the 1988 fire season. The goal of the review team is to have improved fire management policies in effect by the end of May 1989.

The team's report was released for public review in mid-December 1988. Responses were received in the form of oral testimony at 11 public meetings held nationwide in February 1989 and letters submitted during the review period. The deadline for receipt of letters was February 21, 1989; however, all letters received by March 3 were coded and summarized. Responses totaled 408 and came from individuals, organizations, governmental entities, commercial firms, chambers of commerce, and academics in 39 states, the District of Columbia, and Canada. Appendix A lists the agencies, organizations, and businesses that responded; appendix B lists the public meeting sites and dates as well as the number of people who attended and who spoke.

SUMMARY METHODS

Working together, the National Park Service and the Forest Service coded and summarized the public comments during a two-week period in early March 1989. All written and oral comments were cataloged and stored using a computerized database management system; information on individuals and organizations that submitted comments was also entered into the system. (The number of comments was considerably larger than the number of responses because letters and oral responses generally contained comments on several subjects.) The comments were then reviewed and coded based on category and subject of comment and support for or opposition to the policy and the review team's recommendations. Specific suggestions were listed and coded at this time.

After the database was completed, similar comments were grouped using the database management system, and the grouped comments were summarized. The system was also used to help identify important concerns and issues, determine general opinion trends, compile specific comments and suggestions on the report and recommendations, and summarize information on individuals and organizations that submitted comments.

The coded comments were not quantified because this was not a voting exercise. Further, most comments contained caveats or qualifiers. For example, many people who indicated opposition to the policy were not totally against it; rather, they disagreed with a part or parts of the policy, or with its implementation, or with some other aspect. Similarly, many supporting comments included reservations ("I support the policy except for . . .") or favored the policy but found fault with the implementation.

A large number of people submitted specific comments and suggestions concerning the review team's report and recommendations. These comments and suggestions are included in appendix C.

SUMMARY RESULTS

Overview

Most people commenting on the fire management policy supported the review team's recommendations concerning the use of prescribed natural fires and planned ignitions under specified conditions, although a substantial number of comments stated that the criteria for prescribed burns are too stringent. Those opposed to the policy for prescribed burns generally felt that it does not adequately consider the risks to property and human safety. Commenters strongly supported the recommendations for increased interagency cooperation and coordination and more research, and many stressed the need for more and better public involvement; most people felt that the policy needed to be strengthened or modified concerning fire management plans, suppression methods and tactics, training, and costs and funding.

General comments about the fire management policy and recommendations are summarized below; more specific comments are included in subsequent sections. A large number of comments were received that dealt specifically with the 1988 fires in the greater Yellowstone area. These comments are included at the end of the summary.

Most of the comments supporting the report indicated that the review team's recommendations were in-depth, complete, and sound. Many people commented that they were expecting a more politicized report and were pleasantly surprised with the objectivity of the recommendations. A very large number stated that they were glad to see fundamental natural fire policy "reaffirmed" by the recommendations. Many cautioned that agencies and policy makers should not overreact to the fires of 1988; one person stated that "the summer of 1988 was both inevitable and unprecedented in Yellowstone's recorded history. Thus, policy revisions based on last year's events will be invalid for many years to come."

Of the people opposing or disagreeing with the team's recommendations, a large number categorized the report as too narrow in scope, too generalized, and "fraught with bureaucratic jargon." Many people claimed that it failed to clearly pinpoint problems and managerial deficiencies and was difficult to respond to because of the generalizations and bureaucratic style of writing. Others felt that the lack of substantiating evidence, analysis, and quantification detracted from the credibility of the report. One commenter indicated that the lack of specific guidelines or directions severely limited the report's value. Another noted that the process used by the team to arrive at the findings was not addressed in the report. Several people felt that the report treated fire policy as an isolated issue and failed to take into account other management policies, land management plans, and the Wilderness Act; these people thought that changes in fire management policy might require changes in other land use decisions.

There were a significant number of comments that supported the current policy and recognized the role of prescribed fire in western forest ecosystems but felt that the manner of implementing that policy needed investigation and change. Some felt that decisions regarding fire programs should be made locally, "not in Washington."

Opinions were mixed regarding policy and the concerns of people living near parks and wilderness areas. A number of commenters felt that the policy must consider the potential impacts on surrounding communities and landowners; others felt that the concerns of local business people should not influence fire policy. One person recommended establishing fire agreements between the parks and neighboring private landowners; one suggested the creation of local fire districts that would establish policy for all lands within their geographic borders.

A number of the respondents felt that the public meetings were not adequately advertised, and that there were too few of them across the country to enable many people to attend. Some indicated that copies of the report were difficult to find, and one person said that if the agencies were serious about public participation, they needed to make it easier for people to participate. (See appendix B for the methods used to publicize the meetings.)

Prescribed Natural Fires and Planned Ignitions

Comments were generally in favor of prescribed natural fires and planned ignitions in parks and wilderness areas. A significant number of people felt that there should not be so many restrictions on prescribed fires – that too few natural fires are allowed to burn – and many objected to the specific criteria required in the recommendations for limiting the size and number of fires. A large number of people were concerned that specific size limitations on fires within management plans would, at great cost, require managers to reclassify fires as wildfires that were otherwise within prescription and meeting management objectives. Many commenters opposed the suggested moratorium on prescribed natural fires, regarding it as an unnecessary overreaction to last summer's fires. Others objected to the daily certification required in the recommendations; one felt that it could defeat its own purpose by becoming too routine.

Many people expressed support for the use of more planned ignitions. A significant number were puzzled by what they considered to be the agencies' over-reliance on natural ignitions for prescribed fires. Many felt that timely man-caused ignitions might be a way of avoiding the yearly "boom or bust" situation in wildland fires. Some commenters encouraged agencies to allow unplanned human-caused ignitions to burn if they are otherwise within prescription.

A number of people who commented on the use of prescribed fire emphasized the need for defensible prescriptions and early public involvement. Many stated that fires should be closely monitored and controlled to avoid property damage and that the government should notify property owners in advance of prescribed burns.

Some people felt that we should consider alternatives to burning that better utilize our natural resources, such as logging. Several suggested using livestock to keep the fuels down, and some thought that mechanical treatments are appropriate.

A number of commenters expressed opposition to what they called the "let-burn" policy because, as one person put it, "it is as much a non-policy as it is a policy." These people said that the policy implies that the place, time, conditions, and methods of control have not been predetermined and suggests that man has no managerial responsibility and places theories first and concerns of the public, parks, and resources last.

Other comments included the following:

Prescribed natural fire is preferable to planned ignition.

Prescribed natural fire shouldn't be done under last year's conditions.

Prescribed natural fire should be used around developed areas in parks, but should be controlled and managed properly.

Prescribed natural fire is appropriate as long as consideration is given to fire behavior factors, topography, density and type, fuel moisture, weather conditions, source, 1,000-hour fuels, and regional drought indices.

Comments concerning fire in wilderness areas were generally in favor of using prescribed fire to restore the landscape mosaic and increase wildlife diversity. One person wrote that prescribed fire should be used in wilderness only to improve wildlife habitat; another was concerned with how fire fit with the concept of wilderness. One commenter stated that "federal agencies have a duty to preserve the wilderness character of designated areas and to use the least disruptive means available to carry out this task." The comment further indicated that if suppression of wildfires interferes with a fire-dependent ecosystem, then the Forest Service is in violation of a legal mandate to preserve the natural character of the wilderness.

Several comments stated that a "no management" concept has seriously degraded wilderness resources, and management plans should be developed. One commenter supported legislation that will "require control of fire, noxious weeds, insects and diseases where they pose a threat to adjacent multiple-use areas and private property on the wilderness area itself." Another person specifically stated that management plans should be in place before allowing nonprescribed fires to burn out.

One commenter supported planned ignitions in wilderness to reduce the fuel buildup and restore (fire-generated) heterogeneity, which influenced the size and shape of natural fires prior to 1900. Another felt that Forest Service policy for planned ignitions in wilderness is so stiff that "it is essentially impossible for such burns to be a part of wilderness."

Fire Management Plans

Of the people commenting about fire management plans, the great majority felt that the recommendations needed to be strengthened concerning how to carry out and implement planning and what the plans should contain. Many people had specific comments. Among them:

The plans should be prepared by qualified, certified, experienced personnel, including fire behavior specialists

They should be implemented consistently by the various government entities covered by the plan.

They should be specific, yet flexible.

They should prescribe for minimum impact in suppression techniques.

They should balance the role of natural fire against threats to natural resources, watersheds, scenic and recreational values, public safety, and property.

They should consider businesses on park boundaries but should not prohibit the use of prescribed burning because trade might be reduced during the burn; restricting burning could increase later risk.

They should incorporate state smoke management plans.

A number of people also expressed the opinion that decisions involving containment should be made by trained, professional experts using documented management procedures and that competent, professional managers should be in charge and should be held accountable for their actions. One person recommended using the same process for approving prescribed fire as is used for approving forest plans – through amendments – and pointed out that one of the keys to the amendment process is public involvement.

One commenter had several questions for consideration:

Can fire plans, in fact, be written to accommodate the level of detail which is recommended by the review?

Can managers really be expected to foresee the consequences and cumulative effects of all possible fire scenarios?

And, if they are required to do so, will the ultimate result then be much more fire suppression in the future than we have had in past years?

And what will be the environmental and economic effects of these increased suppression efforts?

Suppression Methods and Tactics

A number of commenters supported the concept of "light hand on the land" in managing wilderness fires. Quite a few, however, felt that this concept was worthless without further definition and stronger guidelines accompanying it. They felt that everyone from firefighter to the highest line officer must clearly understand what minimum impact on resources means. Some people felt that if "light hand" tactics are used, specific interagency guidelines are needed. The existing National Interagency Incident Management System (NIIMS) was suggested as a useful framework for interagency cooperation.

Of those who disagreed with the "light hand on the land" concept, many felt that the policy needed to be reviewed or reconsidered. A number of people indicated that although this policy may be environmentally sound for large areas under government control, it is inappropriate where there is a mix of landownership or where substantial economic benefits are derived by local communities. The "light hand" approach was also seen as inappropriate for many large wildfires.

There were a number of objections to using political boundaries as fire breaks, as suggested in the recommendations, rather than biological boundaries. Suggestions included using roads, lakes, rivers, and topographic divides. One person felt that if we wait until a fire reaches a park or wilderness boundary before declaring it a wildfire, we may not have the opportunity to take successful suppression action. Another said that fire breaks along boundaries could become an obstacle to future additions to wilderness areas.

A large number of commenters expressed opposition to building roads into roadless areas for suppression of fires. One stated that under no circumstances should there be timbering or road building in wilderness. Some favored the use of heavy equipment as a suppression tactic, some opposed it.

Post-fire activity was recommended, that is, continuing efforts in monitoring and controlling earth movements, debris, flooding, and wildlife food loss. In regard to revegetation, one person felt that it is "entirely inappropriate"; others thought that minimal reseeding and replanting should be done, several specifying along roadways, near facilities, and in recreation areas and some recommending native grasses and trees.

Many of the comments about firefighting tactics dealt with the need for improved communications between managers and front-line officers. It was perceived that in Yellowstone last year there was a general lack of communication concerning suppression activities.

Training

Although some commenters commended firefighting personnel and their efforts, a great number of suggestions dealt with getting additional training for personnel at all levels, perhaps by the military. Some were specific, calling on the agencies to strengthen training of firefighters so that they recognize and react to extreme weather conditions and use proper suppression techniques. Some saw a need for specialized personnel such as hotshot crews; others favored the utilization of local personnel.

Interagency Cooperation

A recurring comment was a call for increased cooperation and coordination among federal and state agencies where fires could cross administrative boundaries. Saying "an individual park is not an isolated, pristine, ecological bubble," one respondent echoed the thoughts of many by emphasizing the need for interagency coordination, cooperation, and communication. These comments were made in reference to the 1988 fires as well as to developing fire management plans. Many stressed the importance of including state and local fire agencies and state wildlife agencies in planning. A few commenters stated that a "unified" federal policy is essential to fire management; some went even further to suggest that there be one federal fire management agency.

Public Information and Involvement

Many commenters stressed the need to strengthen public information and involvement. There was also a general feeling that public information programs should include education aimed at improving awareness of fire management as an ecological tool.

Specific comments on public information and involvement included the following:

Clearly state the fire policies for specific areas; people should not be led to expect protection when none is planned.

Improve information to the public before, during, and after fires; include data on how decisions were made.

Implement NEPA compliance and public review.

Provide better opportunities for public involvement during formulation of fire management plans (community advisory boards were recommended for this purpose).

Develop common terminology to convey information to the public.

Several people felt that the report's recommendation on public interpretation must be strengthened – that last summer the news media and the majority of the public showed little understanding of wildland fire policy and could not differentiate between it and policies relating to general fire suppression.

Many commenters thought that public information officers should be better informed, saying that they did a poor job on the 1988 fires. A specific idea was to develop a cadre of fire information officers who know and understand the fire business, both prescription and wildfire. Some called for better funding for interpretation as well as accurate, in-depth, and timely information before, during, and after fires.

A number of people said that the team failed to acknowledge the long-term influence of public information campaigns promoting fire suppression, in particular Smokey the Bear, and that such information has contributed to the public's ignorance of the benefits of fire and consequently restricts public acceptance of prescribed fire as a viable management tool.

Several comments indicated that the public also does not understand the social effects of fire or the feasibility and effectiveness of suppression actions. They stated that correcting this lack of public knowledge on the benefits of fire is imperative and recommended that an education program be launched to counter Smokey's message and teach the value of fire.

Costs and Funding

A large number of commenters felt that there is a need for additional funding – for research, for reducing fire potential, for implementing the recommendations, for perpetuating natural and wilderness ideals, and for presuppression (with mention of training for firefighters, fuels management, and controlling prescribed burns).

Many comments concerned the high cost of fighting fires, in dollars, lives, and resources. A number called for a review of costs, demanding accountability as well as a reduction in expenditures and maximizing the use of suppression money. Some said that costs versus benefits of fire control should be addressed by the decision makers. One writer put it simply, "I think money being spent on fires that are not threats is a lack of good financial spending," and questioned motives in putting out fires when the resources saved are not worth the suppression costs. Many comments addressed the protection of structures and other facilities and indicated that it is "foolish" to spend millions on structures worth only thousands; some felt that "localized pre-attack" and fuel reduction around developments are appropriate actions. A few commenters stated that agencies should actively discourage development in parks and should phase out existing developments within and bordering parks. One person suggested better zoning to keep buildings out of fire-prone areas "so we don't waste money on needless suppression."

A number of commenters discussed the manner in which fires are being paid for. Recommendations included not using firefighting funds for unplanned ignitions and not using timber and mineral receipts for future fire costs. There were equal numbers of comments for and against using Knutsen-Vandenberg funds from the timber program. One person stated that planning and presuppression activities should be financed by program funds rather than emergency fund transfers and supplements.

Research

The team's recommendations regarding more research received numerous positive responses, with people calling for increased research and development of advanced technology for predicting, fighting, and monitoring fires. Specifically, many commenters felt that the dynamics of stand replacement fires were poorly understood and needed increased research emphasis. Others felt that increased research on fire dynamics must be coupled with more study of fire effects on vegetation and wildlife. One person was less confident regarding the utility of additional research, stating that he had "grave concerns with assumptions that man can ever manage wildland fire, simulating a natural process we have not nearly begun to understand."

Some people advocated additional research on fuel and weather, fire behavior, exploration and use of new and different firefighting techniques (including those that do not involve heavy intrusion and costly intervention), analysis of forest types, fire history and occurrence in times of drought, and the use of geographical barriers as fire breaks.

Greater Yellowstone Area

Almost all of the commenters expressed opinions on the Yellowstone fires and how they were managed. These comments have been consolidated and summarized for reference in evaluating fire policy and the review team's recommendations.

Concerning fire suppression activities, many people commended Yellowstone's firefighters and management for doing a good job and taking proper action, particularly in saving historic structures. However, there were also many negative comments, which centered on faulty objectives; a lack of communication at all levels; a lack of a clear chain of command, especially interagency; and a reluctance of some individuals to apply full suppression tactics. An alternate view on the last point was that political pressure replaced logic at the management level by demanding full suppression. One person suggested that it would have helped if Yellowstone had had a prescribed burning program. Two comments indicated that the Forest Service should have used local resources and knowledge more effectively; although good commanders were seen at the unified area command, it was felt that NPS management should also have been included. The military was described as ineffective because crews and aircraft were not assigned to individual fires. Endangerment to firefighters' lives was criticized, as was the lack of ability to control fires of this magnitude, particularly by the methods used.

Several commenters expressed concern about the firefighting tactics. Some thought suppression efforts should have begun earlier, particularly given the extreme weather conditions, the difficult topography, and heavy fuel loads. Several people commented that damage to soils and vegetation was far worse from suppression than from the fires. A number were concerned that air pollution caused by the fires exceeded federal air pollution requirements, causing severe respiratory ailments and adversely affecting crops and livestock.

There were split views on the relationships and responsibilities of federal land managers and nearby landowners and residents. A large number of commenters felt that, in general, fire management officials in the greater Yellowstone area demonstrated a complete disregard for the health, safety, and livelihood of those in the surrounding communities and that homes and businesses should have been protected. Some felt that commercial operators should have had preference in sustaining their livelihood; a number supported compensation to concessioners, agriculturalists, timber companies,

and other business people and homeowners whose properties were threatened or destroyed by the fires. On the other hand, many commenters felt that the concerns of local business people and landowners should not influence fire policies and that people who choose to live in a "dreamland vacation spot" should not receive compensation of any type. Several stated that adjacent communities that are financially dependent on the users of public lands must accept the negative aspects as well as the benefits of their location. An example comment: "Structures that are built in forested wildland ecosystems are knowingly placed in harm's way. They are at their own risk and society does not owe them fire protection." Some people went even further, saying that those who lost property should reimburse the government for the money spent trying to protect them.

Several commenters saw the need for a promotional campaign for Yellowstone, to convey to the public that it was still a top recreational place to visit. One wrote: "We believe very strongly that the Federal Government, through the Departments of Agriculture and Interior, has an obligation to cooperate with the surrounding states and communities to help mitigate the impact of the unprecedented media coverage afforded the Greater Yellowstone Fires of 1988. This cooperation should take the form of hard dollars for marketing and promotion of the 'new' Yellowstone story." Another wanted the government to commit \$1 million a year for five years to promote travel to Yellowstone and also called for the federal departments to coordinate with state travel commissions and gateway chambers of commerce.

There were a few comments that pertained to nonfire issues in Yellowstone National Park and the Yellowstone ecosystem. Several people said they would like to see the Yellowstone ecosystem managed as a whole without administrative boundaries. Others said that there was a need for better coordination between the Park Service and Forest Service in managing fires and wildlife habitat. Some people felt that the park was not being properly managed and that management policies should be reassessed.

APPENDIX A: COMMENTS RECEIVED

Written and oral comments were received from the following government agencies, organizations, and businesses.

Congressional

Subcommittee on National Parks and Public Lands
Senator Steven Symms
Senator Malcolm Wallop
Senator Alan Simpson

International

Canadian Embassy

Federal Agencies

United States Department of the Interior
Bureau of Land Management
Bureau of Indian Affairs
National Park Service
Arkansas Post National Memorial
Bandelier National Monument
Big Thicket National Preserve
Big Bend National Park
Buffalo National River
Chickasaw National Recreation Area
Curecanti National Recreation Area
Guadalupe Mountains National Park
Hot Springs National Park
Indiana Dunes National Lakeshore
Jean Lafitte National Historical Park and Preserve
Lassen Volcanic National Park
Lyndon B. Johnson National Historical Park
Sequoia/Kings Canyon National Parks
Southeast Regional Office
Southwest Regional Office
Statue of Liberty National Monument
Wupatki/Sunset Crater National Monuments

United State Department of Agriculture
Forest Service
Boise National Forest
Custer National Forest
Gallatin National Forest
Kootenai National Forest
Nez Perce National Forest
Region 1
Region 3
Region 5
Region 6
Sawtooth National Forest

United States Environmental Protection Agency

State and Local Agencies

Alaska Department of Natural Resources, Division of Forestry
California Department of Forestry and Fire Protection
California State Board of Forest Fire Fighting
Cody Chamber of Commerce, Wyoming
Commonwealth of Virginia, Office of the Governor
Commonwealth of Massachusetts
County of Park, Wyoming
County of Musselshell, Montana
Five County Association of Governments, Utah
Florida Department of Natural Resources
Illinois Department of Conservation
Mississippi Forestry Commission
Missoula Fire Department
Nebraska Forest Service
New Jersey Department of Environmental Protection
Oregon Forestry Department, Office of State Forester
Park County, Colorado
Shelby County Environmental Improvement Commission
State of Wyoming, Office of the Governor
State of South Carolina, Office of the Governor
State of Alaska, Office of the Governor
State of North Dakota, State Fire Marshall
Texas Forest Service
Upper Grant Creek
Wyoming Game & Fish Department
Wyoming Travel Commission
Wyoming House or Representatives
Wyoming State Forestry Division
Wyoming State Archives
Wyoming Economic & Development Stabilization Board
Wyoming Public Service Commission

Academics

California Institute of Technology
California Academy of Science
Colorado State University
Michigan State University
Montana State University
Tall Timbers Research Station
Teton Science School
University of Montana
University of Minnesota
Western Montana College

Organizations

America Wilderness Coalition
American Farm Bureau Federation
American Sheep Industry Association
Association of National Grasslands
Blue Ribbon Coalition
California Farm Bureau Federation
California Wilderness Coalition

Cody Lumber Company
Contra Costa Resource Conservation District
Contract Fire Fighting Appropriate Design
Dubois Alliance
Earth First!
Florida Wildlife Federation
Florida Farm Bureau Federation
Forests Unlimited
Foundation for North American Wild Sheep
Greater Yellowstone Coalition
Idaho Farm Bureau
Idaho Outfitters & Guides
Idaho Conservation League
Inter-Mountain Forest Industry Association
J.H. Outfitters & Guide
Jackson Hole Alliance
Montana Audubon Council
Mother Lode Miners Association
Mountain States Legal Foundation
National Forest Products Association
National Association of Conservation District
National Campers & Hikers Association
National Association of State Foresters
Nevada Farm Bureau
Northwest Wyoming Resource Council
Northwest Independent Forest Manufacturers
Pahaska Tepee
Public Lands Committee
Public Lands Foundation
Public Lands Council
Public Land Users Association
Public Lands Foundation of Billings, Montana
Public Timber for the Timber Association of California
Rangeland Consulting
Rural Alaska Community Action Program
Sacred Pipe Indian Mission
Sierra Club
Sierra Club, North Plains
Sierra Club, Montana Chapter
Sierra Club Legal Defense Fund
Snake River Audubon Society
Society of American Foresters
Stone Forest Industries, Inc.
Teton County Heritage Society
Uinta County Farm Bureau
Western Mountain Fish & Game Association
Western Wood Products Association
Weyerhaeuser, Corporate Headquarters
Wilderness Society
Wildlife Society, Idaho Chapter
Wildlife Society, Wyoming Chapter
Wind River Multiple Use Advocates
Wyoming Farm Bureau
Wyoming Wildlife Federation
Wyoming Heritage Society
Wyoming Travel Commission
Wyoming Outfitters Association
Yellowstone Park Preservation Council

APPENDIX B: PUBLIC MEETINGS ON FIRE MANAGEMENT TEAM RECOMMENDATIONS

A total of 750 people attended the 11 meetings, and 127 spoke.

Meeting Location	Date	Number Attending	Number Speaking	Method of Public Notice
Missoula, MT	2/1/89	63	19	Press release sent to 825 on the press release mailing list (print media, radio, and TV), mostly in Montana, North Dakota, and South Dakota. Legal ads ran in nine major newspapers in Montana and Idaho.
Tallahassee, FL	2/1/89	41	9	Press release sent to about 300 contacts on mailing list, including statewide newspapers and radio and TV stations. The three stations in Tallahassee were contacted in person. Legal ads ran in local area newspapers.
Sacramento, CA	2/1/89	42	9	Press release sent to about 50 newspaper, radio, and TV outlets around the state. Legal ads ran in <i>San Francisco Chronicle</i> , <i>San Francisco Examiner</i> , <i>Sacramento Bee</i> , and <i>Redding Record-Searchlight</i> .
Washington, DC	2/2/89	34	3	Press release sent to regular distribution list, which includes newspapers, wire services, radio, and TV.
Denver, CO	2/6/89	20	3	Press release sent by the Rocky Mountain Regional Office (Park Service) to approximately 300 organizations, advisory committees, newspapers, and radio and TV stations in Montana, North Dakota, South Dakota, Wyoming, Utah, and Colorado.
Jackson, WY	2/7/89	125	18	Publicity handled by Denver office, National Park Service. Nothing additional was done by Grand Teton National Park locally.
Anchorage, AK	2/7/89	20	5	Press release sent to about 200 radio and TV stations, newspapers, conservation groups, other agencies, etc., and to libraries that post the information. Legal ads ran in the three largest dailies.
Idaho Falls, ID	2/8/89	65	20	Press release sent to all media in Idaho, Washington, and Oregon. Legal ad ran in the Idaho Falls paper one day.

Seattle, WA	2/9/89	25	3	Press release sent to all media in Idaho, Washington, and Oregon from the Seattle office. Legal ad ran in <i>Seattle Times</i> and <i>Post Intelligence</i> for one day.
Albuquerque, NM	2/9/89	20	3	Press release sent to all New Mexico media. Legal ad ran in the <i>Albuquerque Journal</i> February 6, 7, and 8.
Cody, WY	2/14/8	300	37	Press release sent to local radio stations (5) and newspapers (4). Legal ads ran in two local newspapers.

APPENDIX C: COMMENTS AND SUGGESTIONS ON SPECIFIC PARTS OF THE REPORT

SUMMARY

The first item in the summary, "The Objectives of Policies . . .," is not supported by the report. The objectives of the Policies cannot be sound when the Policies themselves are not.

Summary, column 1, paragraph 3 – The objectives of the policies governing prescribed natural fire programs were not stated, except as inferred here and there in the report text. Until clearly stated and subjected to review by interested parties, describing them as "sound" is premature and may be highly inaccurate.

FINDINGS

6 – Because the Team never determined whether the Yellowstone fires of 1988 could have been successfully controlled, and ignored the contribution of past fire suppression to the magnitude of these fires, Finding 6 is unfounded.

10 – The Team failed to address the quantity of water and its impacts.

11, paragraph 4, "The primary message communicated . . ." – This is the perfect example of how arbitrary limits within a prescription can create contradictions. It is highly inconceivable for a prescription fire with positive biological values to cross an arbitrary or prescription value and be declared a wildfire (bad) and yet the effect of fire on-site is unchanged throughout.

13 – If incident commanders received unclear direction about the use of certain suppression tactics, was this a failure to clarify or a result of line officers not being sufficiently trained or knowledgeable regarding suppression tactics?

RECOMMENDATIONS

1 – What will define a "legitimate prescribed fire program?"

1 – The Team fails to tell us how those policies should be changed and what limitation should be imposed.

2 – The Team fails to state how precise the constraints for prescribed fires are.

2 – For the most part, the policies are well understood by most fire personnel, but perhaps not so well understood by some managers.

3 – This type of review should be a standard operating procedure.

4 – This change is unrealistic and more a semantic than effective change.

4a – We are in basic agreement, but differences in basic management directions among the Forest Service, Park Service, and BLM need to be acknowledged in all planning and coordination. As an example, while present Park Service management direction does not concern itself with timber harvesting, coordinated planning and policies need to be concerned with protection of the commercial timber harvest base. Fires originating in the Park could destroy this base as it did on the Shoshone during the 1988 fire season.

4a – We would strongly encourage development of permanent legislation permitting reimbursement. Such legislation would more fully realize the intent of the Canada/US Reciprocal Forest Fire Fighting Assistance Arrangement.

4b, Items 1-7 – Contemplating establishing limits of numbers of fires within an administrative unit and size of fires would be very arbitrary and an artificial constraint. The proper use of the other criterion suggested already covers the situation.

4b – Some very specific recommendations, such as those contained in Recommendation 4b, should be eliminated. The detail is inconsistent with other recommendations and they duplicate a role more appropriate to the task force.

4b – I urge that the committee report be broadened to include the following specific suggestions regarding its recommendations and unresolved issues: recommendation 4(b): Add a part 8 to read: "Potential impacts to natural communities and processes caused by preventing fire from acting as a agent of change."

4b(5) – Needs clarification.

4b(7) – We are concerned . . . that Recommendation 4(b)7 could lead to excessive restrictions on the National Fire Program.

4f – Add a phrase encouraging development of a concept of values to be gained due to presence of a prescribed natural fire: "(f) Clearly stating the management objectives being addressed by the prescribed natural fire program, including identification of specific values gained as a result of allowing natural fires to burn unsuppressed within the prescription conditions and areas."

4g – Does public involvement and coordination with local government refer to plan development or plan implementation?

5 – Are the contingency plans developed independently or cooperatively by the agencies? Will the activities of one agency affect the operations of another agency?

5 – If we miss our acreage estimate, is control mandated? Size of fire should not be the only input in selecting tactics and strategy.

6 – We question the implication in recommendation No. 6 that a prescribed fire can be "returned to prescription." To most readers, this implies that a prescribed fire can temporarily exceed prescription while avoiding reclassification as a wildfire, which the team earlier states is unacceptable. . . . We recommend that the statement be revised to state that "If the fire exceeds or threatens to exceed prescription and cannot be kept within prescription with available forces and funds, it shall be declared a wildfire and appropriate suppression action initiated."

6 – If resources are not available, is a fire out of prescription? Will resources be held from suppression assignments to ensure their availability for prescribed fires? Exactly what will be accomplished by the line officers daily certifying adequate resource availability is not clear other than to show that resource availability was considered. Other things which should be considered are just as important, i.e. off site effects, public safety, etc.

7 – The use of planned ignitions within wilderness to treat fuels would likely involve a lengthy NEPA and appeals process here in this region but at least in some cases it may well be worth the effort.

7 – One should include evaluation of whether planned ignition burning would really stop wildfire or even reduce the habitat's flammability, with specificity for each plant community. Also, management objectives are not defined. Is this letting the natural process happen or is it manipulation?

7 – We are concerned with Recommendation 7 to use planned burning and other efforts to create fire breaks along the boundaries. Land unit boundaries are often political, but not biological boundaries.

7 – The option should be retained to conduct planned ignitions for fuel treatment purposes along defensible boundaries inside or outside of wilderness and not necessarily on administrative boundaries.

8a – Will this happen by making it a training requirement or selection criteria? If the latter is done, it could tend to affect affirmative action, so be careful.

8c – Finding qualified people will be difficult. This review item needs to be further thought out.

8 – Add a subparagraph (g) to encourage keeping a balanced program: "(g) In meeting this recommendation, agencies will not reduce existing funding and personnel capabilities regarding natural resource management and research. Rather, agencies will seek to increase those capabilities to ensure their contributions to natural resource decision making and program implementation remain in balance with the increased capability for fire control."

9c – [This] concerns agencies developing joint criteria for selecting appropriate suppression tactics in the wilderness and parks. The phrase "minimal impact" should be inserted after "appropriate".

9c – It is not clear exactly what this statement means.

9d – Are we talking about improved understanding within agencies, between agencies, by the public, or all three?

10 – Does this mean we have to make a determination if the NEPA process was adequately followed for plans presently approved?

10 – Recommendation 10 implies NEPA process is not always followed, and doesn't acknowledge USDA's land management planning process and public involvement that occurs.

11 – We concur with recommendation No. 11 concerning improved interpretation but feel that it should be strengthened. It really doesn't stress the critical need to develop and execute the proactive interpretation and

public education which is needed to counter the incredibly successful "Smokey the Bear" program of the last few decades – which now seems to be providing us with negative problems as well. We feel that messages such as the "Light Hand" concept have not been adequately presented to the public in terms of positive impacts upon the environment, savings in tax dollars, etc., and that the same long-term energy must be put into these messages as the previous suppression messages received.

12 – An excellent recommendation in that wilderness prescribed fire programs are not funded at a level to support the entire program.

12 – Long-range fiscal planning will be difficult, since the fire potential varies with region, weather patterns, fuel conditions, and a variety of other factors. We don't see any practical way of avoiding the need for emergency and/or supplemental funding.

13f – Although this recommendation correctly recognizes that smoke and air pollution are important considerations for fire prescriptions, the policy should not lose sight of the benefits of controlled burning.

ISSUES NEEDING FURTHER ANALYSIS

3 – This issue statement needs to be broadened to ensure a balanced assessment of the relationship of fire management programs to other agency programs. Rewrite to read: "Determination of the effect of budgetary constraints and funding sources on fire management programs and on the relationship fire management program needs in comparison to the needs of other equally important natural resource program components."

OTHER COMMENTS AND SUGGESTIONS

Overview

The report didn't differentiate between varying operating procedures and policies of different agencies, but made general statements, leading the reader to believe they operate the same.

The report doesn't reflect the integration of the total fire management program, i.e., prescribed and wildfire policies, and organization and management, including the interagency cooperative fire community.

Adoption [of the policy] will compromise progress Alaska agencies have made with our interagency fire management program. . . . The review addresses only national parks and federally designated wilderness areas. In Alaska, a comprehensive interagency fire management plan organizes fire protection levels by resource values and natural fuel breaks across administrative boundaries on all ownerships. Proposed policies vary among federal land agencies and will present difficult operations requirements. We urge you to consider a standard policy for all federal land.

The fire management program would be enhanced by developing a better understanding of agency objectives, fire planning standards and decision criteria. In addition, an inventory of forest types and location subject to infrequent but intense large fires, their historic occurrence in terms of drought cycles, and definition of policies to be applied to each case relative to the desired results should be developed as soon as possible.

The recommendations contain no discussion of relationship between land management objectives for an area and fire protection objectives.

Within the policy we've got to establish a stronger set of guidelines for determining the relevant benefits of suppression versus allowing a prescribed fire to burn or in some cases a wildfire – at least if not to burn freely, to burn under somewhat less totally controlled conditions than might otherwise occur.

The goal of fire policy should be preserving forest ecosystems rather than preventing fire per se. Concessionaires should be notified of this policy, and that government fire protection for their buildings will be very limited. The \$150 million the government spent fighting the Yellowstone fires was a waste of money and another addition to our momentous federal budget deficit.

The report fails to address destruction of natural resources, lost business opportunities, and long-term adverse effects on wildlife. This failure to confront these issues renders the recommendations and the "let-it-burn" policy as irrational, and based on emotion rather than fact.

The fire management policy goal should state "To permit as many lightning-caused fires as possible to burn within the prescribed natural burn area."

The Oregon State Department of Forestry recommends that a National Review be conducted on the "Appropriate Suppression Response" and the "Light Hand on the Land" federal policies, particularly as it pertains to other federal lands, i.e., production grounds, scenic areas, intermingled resources, roadless areas,

and special habitats. The review only looked at the fire management policy in national parks and wilderness areas.

Our national parks should be preserved as 100% whole, fully functioning, self-sustaining ecosystems following their own respective cycles and evolutions. . . . Parks should and indeed could serve as more accessible adjuncts to our fledgling and still pitiful wilderness system. They should not be "managed" into safe, fairly predictable Disneyland of plants and human-acclimatized or even human-dependent animals.

Prescribed Natural Fire and Planned Ignitions

If the report is suggesting that fires should be suppressed if they are projected to go beyond a certain size, I disagree. Size by itself is an incomplete indicator of the impacts of a burn. It would be far better to base management decisions upon the ultimate geographic area projected to burn and the impacts on other resources.

Several terms are used which generate questions about proposed operational requirements. These are: "Natural fire," "Prescribed fire," and "Natural prescribed fire." Their meanings are extremely important when defining suppression actions. The national definitions should be compatible with protection categories of Alaska Interagency Fire Plans to protect established management objectives. I urge you to carefully review the definitions.

It should be recognized that occasional high-intensity fires will occur under severe weather conditions. These naturally occurring fires are a potent force for ecological change and play an essential role in maintaining the health and biological diversity of the ecosystem.

The use of prescribed fires to manage wilderness areas is desperately needed. . . . It has been impossible to get federal agencies concerned about the role of fire in natural succession. As a result, crucial habitats for species like bighorn sheep are being lost because of vegetative changes, primarily conifer invasion.

Suggest that the term "human ignited" fires implies all man-caused; and that a better term would be "management ignited," to describe prescribed fires.

I think it would be beneficial to institute a regular prescribed burning program around properties to reduce the likelihood of catastrophic losses where inholdings do occur.

Planned ignition cannot be a substitute for natural fire and be consistent with wilderness objectives. It serves a useful purpose as a supplement or interim measure in attempting to restore natural fuel loadings.

Reduce natural fuels around towns.

Fire Management Plans

We need to be careful not to remove the decision making responsibility from the on-the-ground line officer yet develop and maintain or regain credibility with the public.

It is requested that the Fire Management Policy allow and provide for maintenance of adequate rights-of-way for utility facilities. Staff field inspections have shown that, in many cases, proper tree and fuel clearance has not been maintained in and along these rights-of-way. These rights-of-way must be kept free from trees and fuel to aid in the prevention of outages.

In addition to the current proposal, I recommend that decision criteria be included that will terminate prescribed burning and suppress lightning fires when wildfire conditions exist.

Define what fires we will control and whose methods can be used. Concentrate on initial responses to all fires. Stop profiteering on forest fires.

We need clarification of our role and responsibilities for public safety.

If resource availability other than what is adequate for current prescription becomes a criterion which would result in changing the status to "wildfire", then we might want to allow a return to "prescribed" status when that resource availability changed to more favorable.

The role of fire manager needs to be clarified.

Use consultants – use retired federal employees who have the expertise in fire management and have set up their own businesses. Use them for planning and reviewing plans, for inspections, and for reviews of accomplishment and performance.

The concept of planning for and implementing procedures for fires less than 100% risk-free is not addressed. Risk assessment is a central issue with prescribed burns and should be addressed.

Fire management plans could be improved by developing criteria uniform to all government agencies involved in wildlands management. This would be useful when fires cross administrative boundaries.

The Boise interagency Fire Center could provide more direction and assistance in the form of a model Fire Management Plan. Such a model would streamline NPS fire management by standardizing in areas such as terminology and the EFSA.

Suppression Methods and Tactics

Private property owners should be allowed the right to protect their property (buildings, facilities, vehicles, livestock, machinery, etc.). This means that these property owners should have every right to respond to fires that they come across.

I am sure that if no possible danger to human life and a threat to towns is concerned, the fire should be left alone, but watched and kept back by a twenty mile radius, in order to be controlled with enough time.

Fires need to be managed under the theory that they will jump administrative boundaries, not in the hope that they won't.

We need an attitude change with regard to shelter deployment. There is a serious negative connotation connected with shelter deployment. This caused unnecessary injuries in 1988.

The report glossed over errors in judgment, allegations of poor firefighting procedures, hassles between firefighters and the Park Service, bad management decisions, lack of coordination between agencies.

Manually built firelines should be cut down to the mineral soil and not just through the duff.

If we have mature timber stands that no longer support the kinds of plant and animal life we would like them to support, then open these stands of timber to logging and pile and burn the topplings to satisfy the needs for burn off. This makes use of the wood and renews the forest through regeneration.

Salvage logging should not be allowed in the national park because such would completely interrupt vital nutrient cycles, and in areas of the national forest such as wilderness and roadless areas, steep terrain, salvage logging should be curtailed and closely managed where feasible.

Limiting and controlling access to the forests is another essential tool in protecting against fires, and the fewer portals there are, the easier it is to control.

Training

We need to strengthen training of firefighters in the recognition of and proper reaction to extreme weather conditions.

Special hard hitting fire fighting teams of some 50 persons each should be organized and trained. Several teams should be on hand in each of our large National Parks and be available for emergencies throughout the system. Some 25% would be available for other work such as trail building and structures construction and maintenance.

Interagency Cooperation

There is a need to develop and adopt a unified and coordinated approach to fire management between the Forest Service and the NPS . . . the Yellowstone ecosystem should be managed as such, the entire ecosystem, rather than fragmented because of administrative boundaries.

It may be that some units do not have enough fire activity to maintain skills necessary for the occasional fire bust. We need to institutionalize a system so that a unit with a fire bust can call for fire management help as easily as it calls for another engine or crew.

Public Information and Involvement

The NPS should continue to accept wilderness and environmental education as part of its duties. It is not the responsibility of the NPS to protect the public from natural phenomena such as fire. Instead, NPS should educate the public about the risks they may encounter in dealing with such factors.

The report does little to recommend that Parks containing significant hazardous fuels review their present organization and public relations program.

We suggest improvement and better funded public information and wildland fire interpretation before, during, and after major fires.

We feel there is one aspect of the team's finding that needs to be more strongly addressed and that is education.

Costs and Funding

The whole cost picture must be examined, including potential costs and damages associated with a prescribed fire that later becomes a wildfire which requires aggressive suppression action. Cost statements must include federal suppression monitoring costs, and cooperating agency increased suppression costs resulting from reduction in local resources. The Department is also concerned with the higher per-acre suppression costs experienced by federal agencies.

We need to put our effort and funding into the relatively cheap action of fire proofing small areas around structures rather than attempting to change the fire history of the entire west.

Sufficient personnel and financial resources should be dedicated to this review task to expedite the process and minimize interruptions.

Research

Fire cycle data is nonexistent for many of the wilderness areas in Wyoming. Collection and analysis of such data, particularly its relationship to different successional stages, should be a prerequisite for preparation of Fire Management Plans and also a high priority for funding.

Recommend continued research and implementation of remote sensing/geographic information system technologies for use in assessing the fuels conditions, prescribing fuels management, and modeling real time fire behavior.

Other research recommendations:

- Identify the influence of smoke columns on fire growth and behavior and on spotting.

- Identify meteorological thresholds that result in rapid changes of fire behavior.

- Develop a system to identify drought conditions that forecasts potential fire season severity.

- Verify current fire behavior predictive systems; enlarge database to increase applicability of predictive systems if possible.

- Develop or identify models to predict winds over high elevation terrain.

- Identify factors causing transition from surface fire to crown fire.

- Develop a system for predicting growth of large fires.

- Identify the impact of fire exclusion on fire severity and the wildland/urban interface.

Greater Yellowstone Area

The fire team must go back and answer the President's question of the pre-fire management policies which caused the size and intensity of these fires.

We encourage further review and development of alternative means of analyzing the damage and off-site effects of suppression activities as well as of the fires themselves.

The National Park Service and its citizen advocacies should not demand the creation of protective buffers on adjoining lands to insure the continuation of their management philosophy unless they are prepared to accept full accountability for their operational impacts on their neighbors, both public and private.

The report was "unbalanced" to blame managers and fire management policies for the severity of the 1988 fire season.

The greater Yellowstone ecosystem after the fire needs no timber salvaging, no logging, no new access roads, no firebreaks and no new "improvements" for visitors. What it really needs right now is the reintroduction of the Gray Wolf, the removal of the Fishing Bridge development, \$120,000,000.00 for land acquisition to match the \$120,000,000.00 wasted in August's fruitless public relations effort to stop a needed, natural process and after all of those things are accomplished, it needs, finally, to be left the hell alone to follow its own natural processes without our interference.

Anything you can do to advance the preservation (or even restoration) of Yellowstone in the direction of what it once was rather than in the direction of what the Winnebago set and the periphery of local ranchers, hunters, miners, loggers and developers want it to be I would greatly appreciate. More importantly, so too will posterity.

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