

CHAPTER 2 — FINDINGS OF THE WORKING GROUP

INTRODUCTION

After reviewing the various materials and information described in Chapter 1, the Working Group reached several Findings regarding the overall fire management situation, the adequacy and appropriateness of federal wildland fire policies, and the implementation of those policies. This chapter presents those Findings. The 2001 Policy and a series of Implementation Actions follow later in this Review and Update.

The 2001 Policy and Implementation Actions are based on these Findings. Some Findings may result in more than one Implementation Action, and some Implementation Actions may be based on more than one Finding. The objective of this chapter is to identify the major areas of concern regarding fire management, fire management policy, and implementation of fire management policy.

FINDINGS

The following Findings must be read as an integrated set. The first two Findings present a summary or overview of the 1995 Federal Fire Policy and its implementation. The remaining findings address specific aspects of the 2001 Federal Fire Policy and its implementation.

1. ADEQUACY OF 1995 FEDERAL FIRE POLICY – SUMMARY FINDING

- a. **The 1995 Federal Fire Policy is generally sound; however, some aspects lack clarity and there are elements missing that would make the policy stronger and more complete.**

The review found no fundamental flaws in the 1995 Federal Fire Policy. Experience with implementation of the policy in the past five years has demonstrated, however, that some aspects are unclear or unrealistic. Some issues, such as science, ecosystem sustainability, ecosystem restoration, education and communication, and program evaluation, were not explicitly addressed in 1995.

- b. **There is increasing recognition that the fire hazard situation is worse than previously thought and fuels continue to accumulate.**

Fuel conditions are outside the range of historical patterns on 211 million acres (70 million acres of condition Class 3, and 141 million acres of condition Class 2 federally managed lands). The acreage burned in fuel treatments and wildfires continues to be materially less than the historical acreage of wildfires.

2. ADEQUACY OF IMPLEMENTATION OF 1995 FEDERAL FIRE POLICY – SUMMARY FINDING

a. When there was organizational will and commitment about an element of the 1995 Federal Fire Policy, that element was successfully implemented.

The policy emphasis on firefighter safety was implemented primarily because of organizational will and commitment to the issue, rather than an integrated, interagency mechanism to drive implementation of the firefighter safety policy. An outcome of this commitment was the creation of the Safety Awareness in the Fire Environment (SAFE Initiative) program, an interagency collaborative mechanism to implement firefighter safety policy.

b. Incomplete implementation of the 1995 Federal Fire Policy has hindered its success.

The 1995 Report contained over 80 specific Action Items deemed important for implementation of the 1995 Federal Fire Policy. Inconsistent and incomplete implementation of some items has resulted in less than successful implementation of the overall policy. Those most successfully implemented were those exclusively in the domain of the traditional fire management organizations. Implementation was least successful in areas requiring coordination and agreement among agencies or across disciplines within agencies. Some items, in retrospect, could not or should not be implemented as originally written. Planning remains one of the most critical items to be implemented. A summary of the status of the Action Items from the 1995 Report is found in Appendix E.

c. Adequate reviews have not been conducted to determine if all agencies are implementing recommendations.

Agencies have implemented the policy recommendations unevenly, and there is little evidence that managers have been held accountable for implementation.

3. SAFETY

a. Safety awareness and commitment to firefighter and public safety continues to be the first priority in all aspects of the wildland fire management program.

The increased emphasis on safety is one of the most successful aspects of the implementation of the 1995 Federal Fire Policy. Most of that emphasis has occurred in the traditional fire management activities of fire suppression and directly associated activities. Similar commitment and awareness in related programs of fuels treatment and rehabilitation and restoration are essential. Safety awareness must continue to be an inherent value in fire management, not a response to mistakes or accidents on specific incidents.

b. The increased emphasis on firefighter and public safety has been effective.

Implementation of the 1995 Federal Fire Policy and the Wildland Firefighter Safety Awareness Study has led to increased recognition of the need for safety through better firefighting training, awareness, and a strong safety ethic. Public safety awareness has been raised by such programs as FIREWISE. However, there are still too many instances of strategies and tactics which, by their selection, put people at risk.

4. ECOSYSTEM SUSTAINABILITY

The use of wildland fire and other treatment of fuels has increased significantly since 1995. This increase, while significant, is far short of the level of treatment needed to ensure sustainability of ecosystems.

Fire is an important component of ecosystem sustainability, including its interrelated ecological, economic, and social components. Agencies have recognized that fuels management is an important aspect of vegetation management and is integral to restoring and maintaining ecosystems. Carefully planned and executed fuels treatments have reduced the risk of wildland fire while improving ecosystem conditions and providing economic benefits to communities. Desired future conditions sought in land management plans are sometimes not achievable because the role and influence of fire have not been adequately considered in the planning process. In several instances, agencies have treated fuels in some areas to achieve the greatest land management benefits at the lowest cost per acre. These may not be areas of greatest risk, such as the Wildland Urban Interface.

5. WILDLAND URBAN INTERFACE

a. The scope of the fire hazard problem in the Wildland Urban Interface is more complex and extensive than envisioned in 1995. Explosive growth in the Wildland Urban Interface now puts entire communities and associated infrastructure, and the socioeconomic fabric that holds communities together, at risk from wildland fire.

The public has greater recognition of the problem in Wildland Urban Interface areas, but communities and homeowners are still not taking sufficient actions to mitigate fire risks. Programs such as FIREWISE, adoption of the Urban-Wildland Uniform Building Code, and Insurance Services Organization (ISO) pilot grading schedule for Wildland Urban Interface are examples of successes since the 1995 Federal Fire Policy was initiated.

The potential for fire starts is also greater in the Wildland Urban Interface, which increases risk to natural resources.

b. Federal, State, tribal, and local fire protection agencies are unclear on their roles and responsibilities for structural fire protection and suppression within the Wildland Urban Interface.

The 1995 Federal Fire Policy addresses roles and responsibilities for structure protection in the Wildland Urban Interface. However, the 1995 Federal Fire Policy has been inconsistently implemented and there are conflicts in manual direction, guidelines, and procedures. Large areas of Wildland Urban Interface remain with no structural fire protection organization. In some cases, this has resulted in federal agencies responding to structural fires despite the direction provided in the 1995 Federal Fire Policy.

6. PLANNING

a. Fire Management Plans, based on land management plans and supported by operational plans, are essential for implementation of the 2001 Federal Fire Policy.

Fire Management Plans are fundamental strategic documents, based on land management plans, to guide the full range of fire-management-related activities in a unit or area. Fire Management Plans are supplemented by operational plans such as preparedness plans, dispatch plans, prescribed fire plans, and prevention plans. Fire Management Plans include discussion of resource management objectives and activities, such as restoring and sustaining ecosystems and protecting communities and public safety. Fire Management Plans also address public health and environmental issues such as air and water quality and endangered species. Finally, Fire Management Plans should be developed and implemented across agency boundaries to ensure consistent approaches to similar conditions. Thus, successful implementation of 2001 Federal Fire Policy depends on the development and implementation of high-quality Fire Management Plans by all land managing agencies.

b. Many areas do not have Fire Management Plans that meet the requirements of the 1995 Federal Fire Policy.

Generally, the scope and completeness of Fire Management Plans completed under the 1995 Federal Fire Policy have improved, including additional consideration of the environmental impacts of fire management options and strategies. However, many plans remain incomplete. Some have not been updated since 1995, some are not based on the current approved land management plan, and some do not address the full range of issues required. Plans must be based on underlying land management plans to integrate fire with natural resource objectives if the desired future conditions identified in these plans are to be achieved.

Preparation of Fire Management Plans is hindered by inconsistent or incomplete guidance on how public health and environmental impacts are to be considered. Recent efforts by the National Park Service and the USDA Forest Service to address air quality and smoke management issues represent progress, but much work remains.

7. RESPONSE TO WILDLAND FIRE

Multiple terms for various management options to respond to wildland fires have confused agency managers and employees, cooperators, partners, and the public, and have perpetuated multiple fire management program elements.

Policies, manuals, handbooks, procedures, and other aspects of implementation of the 1995 Federal Fire Policy often use a variety of terms such as “wildland fire,” “wildfire,” “fire use,” “wildland fire for resource benefit,” and “prescribed fire” interchangeably. The proliferation of similar terms was frequently driven by concerns about the source of ignition of the fire, the land use designation where the fire was located, and administrative considerations such as funding sources. The use of these many similar terms has caused confusion and misunderstanding within the agencies and among cooperators, partners, and the public. In addition, different systems have been developed or perpetuated (based on the “type” of fire involved) for training, qualifications, dispatch, and other aspects of fire management.

8. SCIENCE

a. Although research and scientific activities have expanded to support fire management programs, there are gaps in scientific understanding, and integration of scientific disciplines is often lacking.

Research agreements across agency boundaries, such as the Joint Fire Sciences Program, have benefited fire management programs. However, scientific information on many aspects is either lacking or needs to be made available. For example, information on the relative effectiveness and consequences of different fuel treatment methods is being developed but is not yet available. In addition, little information exists on the effects of post-fire rehabilitation activities that fully integrate biological, hydrological, and geological disciplines. There is also a lack of information concerning the social science implications of fire management activities on firefighting personnel, decision makers, and the public.

b. Individual agencies generally collect adequate fire data, but no system exists for collecting and compiling consistent data among agencies.

No centralized database is universally available to users and scientists for long-term monitoring, research, and planning. Information about the use of fire cannot be aggregated because each agency uses a different system for data collection. This overall lack of a common system raises questions about the validity of actual accomplishments and cost data reporting.

No system exists for collecting and tracking data on air pollutant emissions produced by biomass burning, or for assessing the air quality impacts from wildland, prescribed, and agriculture fires on private, federal, tribal, and State lands. State air quality regulators do not have a national database that includes biomass-burning information. Federal land management agencies are working with the Western Regional Air Partnership to develop an air pollution emissions tracking system that will store federal fire data for the western region of the country. Currently there is

no proposal to track non-federal wildland and prescribed fire or agricultural burning data for the western region, or biomass burning data for the remainder of the country.

9. WORKFORCE AND ORGANIZATION

a. **The existing workforce and the skills mix of that workforce are insufficient to address changing fire management priorities and increased fire management complexities.**

Demographic trends such as an aging workforce, two-career families, changing career interests, and other factors have significantly reduced the numbers of personnel available for fire management activities, especially fire suppression and fuels management. The general downsizing of federal agencies with fire management activities has exacerbated this problem. Finding sufficient personnel within agencies to meet annual fire season staffing requirements has been increasingly difficult. The 2000 fire season necessitated the use of international wildland fire managers.

Land management and regulatory agencies have not been able to keep pace with the changing fire management priorities and complexities. New skills and additional capabilities will be required in the future.

In the Fiscal Year 2001 appropriations for the Department of the Interior and USDA Forest Service, Congress recognized that increased funding for current and future years is needed to achieve effective preparedness and hazardous fuels reduction capabilities.

b. **The structure of fire management and fire suppression organizations needs to be reviewed.**

As the federal fire management program continues to grow in size, scope, and complexity, new concepts in program management organizations, new approaches to fire suppression and prescribed fire organizations, and new mechanisms for increasing training in suppression, prescribed fire, decision-making, and support programs may be required.

10. FUNDING

a. **Lack of adequate funding has been a barrier to full implementation of the 1995 Federal Fire Policy.**

Funding and budget structure for the four Interior agencies and the USDA Forest Service have significantly improved since adoption of the 1995 Federal Fire Policy. Budgets have increased for fire management preparedness. Changes in budget structure have increased the flexibility of fire program managers to implement fuels management and other activities. However, overall funding levels have not been sufficient to meet or address all of the fire management, fuels management, and other needed activities.

b. **Adequate funding for fire management and associated programs is essential for the future successful implementation of the 2001 Federal Fire Policy.**

The Fiscal Year 2001 appropriations for the Departments of the Interior and Agriculture contains additional funding for fire management preparedness, fuels management activities, scientific support, post-fire stabilization and rehabilitation, and support for State and local partners. This increase implements a strategic program outlined in a report from the Secretaries of the Interior and Agriculture in September of 2000. Continuing comparable funding to support all aspects of fire management, fuels management, and related activities will be required in Fiscal Year 2002 and beyond to ensure the implementation of the Report to the President and the 2001 Federal Fire Policy.

Adequate funding for agencies not historically considered fire management agencies is also critical. The Department of Defense, the Department of Energy, and the Bureau of Reclamation (all of which have land management responsibilities) do not have adequate stable funding sources to implement the 2001 Federal Fire Policy.

Finally, stable federal support for non-federal organizations through programs such as the Cooperative Forestry Program of the USDA Forest Service ensures that cooperating fire organizations are able to implement the fire policy consistently.

11. INTERAGENCY COOPERATION AND COORDINATION

a. Not all federal agencies with land-management or other fire-related responsibilities, and the lands under their jurisdiction, are fully integrated into federal fire management.

The USDA Forest Service and the four principal land-managing agencies of the Department of the Interior have traditionally been considered the “fire management” agencies of the federal government. However, the Departments of Defense and Energy both manage substantial acres with burnable vegetation. Other agencies, such as the Bureau of Reclamation, also manage smaller amounts of similar acres. These agencies have not been included under the 1995 Federal Fire Policy, nor do they generally participate in such fire management activities as training, qualification, and sharing of firefighting resources. In addition, other federal agencies have programs with significant consequences for the implementation of federal fire policy, including support services such as meteorology, scientific information and analysis, and regulation of air and water quality. Successful implementation of the concepts, as well as the letter, of the 2001 Federal Fire Policy depends on the complete integration of all federal agencies with programs affecting land management and fire management. Integration is required at the strategic, program planning level as well as at the tactical, program implementation level.

b. Failure to fully implement the 1995 Federal Fire Policy and the associated Action Items stems from the lack of a mechanism to integrate actions and activities across agency, program, and discipline boundaries.

The 1995 Federal Fire Policy presented unusual, if not unique, challenges to traditional organizational arrangements. It required coordination, consistency, and agreement among five operating agencies in two Departments, as well as requiring fire managers to forge new working relationships with other disciplines within those agencies. Implementation measures were required at the national, regional, and

operating unit level. Because no mechanism exists to provide leadership, coordination, conflict resolution, or oversight on a broad scale, however, most aspects of implementation requiring interagency or interdisciplinary solutions have been unsuccessful. Program managers outside of traditional fire management, such as endangered species, cultural resources, weather, and environmental protection, have no means of regular interaction with fire program managers. Further, there is no focal point or clearinghouse capability to provide a comprehensive picture of the full range of fire management activities including fuels management, restoration and rehabilitation, traditional fire management programs, and coordination with non-fire regulatory programs.

c. Collaboration, coordination, and integration of fire management planning and implementation between federal agencies and non-federal agencies are incomplete and inconsistent.

Successful implementation of the 2001 Federal Fire Policy will require coordination, collaboration, and integration across governmental boundaries, as well as across federal agency and discipline boundaries. Fire management planning, operational planning, and operational activities should include collaboration, coordination, and integration among federal agencies and non-federal entities such as State, tribal, and local governments to ensure safety, efficiency, and healthy, sustainable ecosystems. Uneven collaboration, coordination, and integration have hindered successful implementation of the 1995 Federal Fire Policy.

12. COMMUNICATION AND EDUCATION

a. The public, as well as some agency employees and managers, still do not adequately understand the role of fire in maintaining natural systems.

Since the 1995 Federal Wildland Fire Management Program Review, agencies have increased their efforts to provide accurate, consistent information to the public and to employees about wildland fire. Media coverage of wildland fire incidents over the last few years has been increasingly sophisticated in describing the importance of fire in maintaining natural forest and range conditions, in describing the consequences of past fire suppression practices, and in explaining use of prescribed fire. However, many people continue to believe that fires can and should be immediately suppressed, and fail to recognize that fire is a natural event in most areas. Continued success in implementing federal fire policy depends on a well-educated public and agency workforce. Surveys commissioned for this review, as well as other surveys, indicate a lack of adequate understanding of the 1995 Federal Fire Policy among employees in key management and leadership positions.

b. The federal government lacks a standard, consistent message on the importance and role of fire in natural resources management.

Despite significant education and communications efforts on the part of most agencies, there is no integrated, consistent communication strategy. The use of different terminology and emphases among agencies results in mixed messages to the public and employees.

13. EVALUATION

- a. **Monitoring and oversight of overall implementation of the 1995 Federal Fire Policy have not been adequate, and no effective interagency capability for such monitoring and oversight appears to exist.**

The little monitoring and oversight of implementation that has taken place over the last five years has been largely focused on discreet, agency-specific issues. An early effort at broader management oversight, the Management Oversight Team, was ineffective. At the beginning of this review there was no overall assessment available on the status of implementation of the 80-plus specific Action Items in the 1995 Report, nor were there any agreed upon performance measures or metrics for gauging status and adequacy of implementation. At best, there was general information about national level status of implementation, such as the existence of direction to field units to take certain actions. Detailed information about the status of implementation at the field level generally remains unavailable.

- b. **There have been no meaningful consequences for failure by agency administrators at any organizational level to fully implement all aspects of the 1995 Federal Fire Policy, nor are there significant incentives or rewards for efforts at implementation.**

As noted elsewhere, implementation of the 1995 Federal Fire Policy has been incomplete and inadequate, particularly in those areas requiring coordination and agreement across agency and discipline boundaries. There is no system of accountability for this failure, nor have there been significant consequences for agency administrators and program managers at any level. Major examples include the failure of most units to adopt Fire Management Plans that meet the requirements of the 1995 Federal Fire Policy, the failure of agency administrators to minimize costs of suppression on large project fires, and the failure of the five major fire management agencies to agree upon common program management tools and systems for resource planning and budgeting. Of particular concern is the lack of consequences for failure to resolve differences among agencies and disciplines, and for failing to ensure integration among disciplines. In general, agency management has not taken steps at either the unit level or the program management level to identify implementation problems or to resolve those problems. There have been no consequences for failure to take these steps. However, many individuals and some organizations have taken important steps to implement the 1995 Federal Fire Policy, but their efforts have largely been without incentives or rewards.

14. WEATHER SERVICES

- a. **Disagreement remains between the National Weather Service (NWS) and federal land management agencies involved in wildland fire management on the products, standards, and level of weather services required and how they are provided.**

Weather services required for fire management activities have increased since the 1995 Report, due to such factors as a continued increase in wildland fire severity, a threefold increase in fuel reduction projects, and increasing encroachment of development into the wildland environment. Since the implementation of the 1995 Federal Fire Policy, the NWS has implemented a modernization and associated restructuring using new technology and improved science. One result is that the forecast area coverage for each forecast office has been significantly reduced, but each forecaster now provides support to several program areas (Public, Aviation, Fire Weather, and Marine.) In addition, the number of available NWS Incident Meteorologists (IMETs) has been doubled to provide support for the increase in large fire events.

Fire management agencies believe they require additional weather services from the NWS to support the full range of fire management activities. Many fire managers view the loss of dedicated fire weather forecasters as a reduction in quality that is unacceptable. Fire managers also believe that most NWS forecasters do not have the experience in fire weather forecasting to deal with site-specific spot forecasts that dedicated fire weather forecasters have provided. The fire weather forecaster is seen as a full partner on the fire management team, often involved during the off season in training and coordination meetings.

The inability of NWS and the federal fire management agencies to agree on the products, standards, and level of weather services required to support fire management activities and the means of meeting these requirements continue to hamper full implementation of the 2001 Federal Fire Policy. Federal fire management agencies have identified a requirement for 20 additional fire weather meteorologists due to inadequacy of current weather services support. The Fiscal Year 2001 appropriations for the Departments of the Interior and Agriculture include funding for those meteorologists. This represents an ad hoc, piecemeal approach to addressing fire weather service issues and does not resolve the underlying disagreement.

b. The lack of NWS support for “non suppression” fire management activities by non-federal entities significantly hinders integrated interagency wildland fire management programs.

The NWS interprets statutory and related committee report language to prohibit them from providing support to non-federal organizations for wildland fires that are being managed for beneficial uses such as hazardous fuel reduction. The 2001 Federal Fire Policy requires agencies to plan and execute wildland fire and other fuels management treatments on a landscape basis and in partnership with State and private landowners. Lack of specialized wildland fire forecasts to State agencies is a barrier that increases costs and reduces overall quality of fire plans and wildland fire treatments, as well as increasing risk to public and firefighter safety. Through cooperative agreements, federal employees are often involved on these fires even though they are not on federal lands.

Any fire occurring on wildland is defined as a wildland fire. The type of ignition or wildland fire objective does not change the weather forecasting needs. Providing the full suite of weather products and services to support all wildland fire management actions is essential, and should not depend on the source of ignition or location of the fire.

The private meteorological industry has shown little interest in providing weather services to enhance NWS products to meet fire management requirements. State governments in Florida and Oregon have had to hire forecasters to meet their needs although their needs are not simply State in nature but apply across all landholders. This adds unnecessary complexity and cost.

PROPOSED CHANGES AND ACTIONS

To address the above Findings, the Working Group developed Guiding Principles, Policy Statements, and Implementation Actions that are presented in Chapter 3.

The Guiding Principles remain the same as those contained in the 1995 Report with the addition of the word “international” to the guiding principle on coordination and cooperation. This change recognizes the increasing role that other countries play in assisting the U.S. and in the increasing exchange of technology, training, skills, and knowledge of wildland fire issues between the U.S. and other countries.

As a result of experiences since 1995, as well as greater understanding of the complexity and seriousness of the wildland fire situation in this country, the 2001 Federal Fire Policy contains five additional policy statements along with revisions to several statements in the 1995 Federal Fire Policy. Chapter 3 also includes strategic Implementation Actions necessary for successful implementation of the 2001 Federal Fire Policy.

The new policy statements complement and supplement the current set, and include:

- the role of fire in ensuring ecosystem sustainability;
- the need for restoration and rehabilitation of fire-damaged lands and ecosystems;
- the role of science in developing and implementing fire management programs;
- the importance of communication and education internally and externally; and
- the critical need for regular, ongoing evaluation of policies and procedures.

A number of the 1995 Federal Fire Policy statements were revised to reflect experiences since 1995 and to underscore the importance of key issues. These include:

- better recognition that Fire Management Plans identify and integrate all fire management and related activities within the context of approved land management plans;

- clearly stating that the management response to fire is based on the circumstances surrounding the fire, not the source of ignition or location of the fire;
- clarifying that, following protection of human life, suppression priority decisions include considerations of human health and consequences on communities rather than property; and
- clarifying the 1995 Federal Fire Policy on the Wildland Urban Interface to recognize the role of wildland fire agencies in protecting structures, but not suppressing fires in them.

Strategic Implementation Actions in Chapter 3 deal with:

- Fire Management and Ecosystem Sustainability
- Response to Wildland Fire
- Wildland Urban Interface
- Planning
- Science
- Workforce and Organization
- Funding
- Communication and Education
- Program Management and Coordination

Appendix C contains the detailed explanations for all of the new policy statements and the recommended changes to the 1995 Federal Fire Policy statements. Appendix D contains a side-by-side listing of the 1995 Federal Fire Policy and the 2001 Federal Fire Policy. The Guiding Principles, Policy Statements, and Implementation Actions can be found in their entirety in Chapter 3.