

CERRO GRANDE PRESCRIBED FIRE

INDEPENDENT REVIEW BOARD REPORT

MAY 26, 2000

Independent Review Board

State of Florida, Division of Forestry

U.S. Department of the Interior, Bureau of Land Management

U.S. Department of Agriculture, Forest Service

White Mountain Apache Tribe

CONTENTS

Executive Summary	3
Introduction	5
Independent Review Board	6
Team Members	6
Scope of Assignment	6
Process	6
Findings	7
Recommendations	9
Safety	9
Communication and Coordination	9
Management Oversight	9
Prescribed Fire Planning and Plan Review	10
Contingency Planning	11
Weather	12
Conclusions	13
Appendix	14

EXECUTIVE SUMMARY

On May 4, 2000, fire personnel at Bandelier National Monument, National Park Service, ignited the Upper Frijoles prescribed fire. Due to a slopover, the fire was declared a wildfire on May 5, 2000. By May 10, the fire now known as the Cerro Grande Fire had burned 18,000 acres and 235 homes in Los Alamos, New Mexico. By May 24, the fire had burned over 47,000 acres including portions of Los Alamos National Laboratory, the Santa Fe National Forest, the San Ildefonso Pueblo and Santa Clara Pueblo and other private property.

Secretary of the Interior, Bruce Babbitt formed an interagency Fire Investigation Team on May 11, to review the planning and implementation of the Cerro Grande Prescribed Fire. The team submitted their report on May 18, 2000. The overall conclusion was that National Park Service personnel failed to properly plan and implement the Upper Frijoles Prescribed Fire.

On May 18, 2000, Secretary Babbitt appointed an Independent Review Board to review the findings and recommendations presented in the Cerro Grande Prescribed Fire Investigation Report.

The Independent Review Board based its recommendations on the Cerro Grande Prescribed Fire Investigation Report; conversations with key team members and other staff; and, review of videos and pertinent portions of policy, technical, and informational documents.

The Board concludes that the findings and recommendations contained in the Cerro Grande Investigation Report are logical, valid conclusions – with the exception of the recommendation under Finding F. The National Weather Service **did** comply with existing policies and working agreements in providing weather information, contrary to the conclusion drawn from Finding F in the report.

The Board developed additional recommendations in six categories that support the findings of the Investigation Team:

- **Safety**
All components of a prescribed fire plan must be followed to ensure that safety objectives are met. One individual should be designated with the sole responsibility for safety oversight during burn implementation.
- **Management Oversight**
Agency administrators are the key link in the success of the wildland fire management program. Their attitude and commitment to safety is critical. They must set the tone for serious, conscientious implementation of all components of a

prescribed burn plan and ensure linkages to other overarching plans and fire management policies

- **Communication and Coordination**

Substantial and continual coordination and cooperation must occur in planning and implementing fire management activities.

- **Prescribed Fire Planning and Plan Review**

Fire management plans and prescribed fire plans should be developed through an open collaborative process, affording opportunities for internal and external review prior to approval.

Complexity rating systems should be consistent across agencies, recognizing geographical differences. Fire management personnel must be fully trained in the application of these systems.

- **Contingency Planning**

Contingency resources need to be defined; identified; their availability assured; and, their use described during the contingency planning and plan implementation process. Contingency resource costs must be included in the project cost.

- **Weather**

The National Wildfire Coordinating Group's Fire Weather Working Team should review weather needs of wildland fire managers and the capabilities of the National Weather Service to ensure that necessary weather information is available.

The Review Board believes that applying fire to the landscape is an essential tool for good resource management and at the same time is one of the most significant decisions resource managers make. For it to be successful, it must be planned and implemented in an open, collaborative manner and approached with the seriousness and attention this type of inherently dangerous situation deserves.

INTRODUCTION

On May 4, 2000, fire personnel at Bandelier National Monument, National Park Service, ignited the Upper Frijoles prescribed fire with an approved plan. Sporadic wind changes caused some spotting within the unit and a slopover on the upper east fireline. Because of the slopover, the prescribed fire was declared a wildfire at 1300 hours on May 5. The fire was contained on May 6 and early on May 7; however, on May 7, winds increased and caused the fire to move out of control onto the Santa Fe National Forest. On May 10, the prescribed fire, now called the Cerro Grande Fire, carried by high winds, entered Los Alamos Canyon. The towns of Los Alamos and White Rock were in the fire's path, and 18,000 residents were evacuated. By the end of the day on May 10, the fire had burned 18,000 acres, destroyed 235 homes, and damaged other structures. The fire spread towards Los Alamos National Laboratory, and although fires spotted onto the facility's lands, major structures were secured and no releases of radiation occurred. The fire burned other private land and portions of the San Ildefonso Pueblo and Santa Clara Pueblo Reservations. On May 24, the fire was 95% contained and had burned over 47,000 acres.

Secretary of the Interior, Bruce Babbitt, formed an Interagency Fire Investigation Team on May 11, to review the planning and implementation of the Cerro Grande Prescribed Fire. They submitted their report to Secretary Babbitt on May 18, 2000. The report found that federal personnel failed to properly plan and implement the prescribed fire.

Secretary Babbitt also appointed an Independent Review Board to review the findings and recommendations presented in the Cerro Grande Prescribed Fire Investigation Report.

INDEPENDENT REVIEW BOARD

Team Members:

The members of the Review Board were announced on May 18, 2000.

The Board is an Intergovernmental Team composed of:

Paul DeClay, Jr., Tribal Forest Manager, White Mountain Apache Tribe, Fort Apache Indian Reservation, Whiteriver, Arizona

Lyle Laverty, Regional Forester, US Forest Service, Rocky Mountain Region, Denver, Colorado

Michael Long, Assistant Director, State of Florida, Division of Forestry, Tallahassee, Florida

Elaine Zielinski, Oregon/Washington State Director, Bureau of Land Management, Portland, Oregon

Scope of Assignment:

The Board's task consisted of providing an independent review of the findings and recommendations of the Cerro Grande Prescribed Fire Investigation Team. The scope of the review was to validate that:

- the Investigation Team asked the appropriate questions and talked to the key people involved in the incident;
- the findings and recommendations flowed from the information presented; and,
- the recommendations were feasible.

In addition, the board should identify any additional recommendations from a policy and program perspective that would help to ensure that this type of incident would not occur in the future.

The Board was not charged with addressing specific individual's accountability, nor with recommending appropriate personnel actions.

Process:

The Review Board used several processes in completing its assignment:

- Reviewed the Cerro Grande Prescribed Fire Investigation Report of May 18, 2000.

- Viewed the video of the summary of the findings and recommendations presented on May 18, 2000.
- Viewed the video of the Cerro Grande Prescribed Fire Helicopter Overflight of May 16, 2000.
- Interviewed the five member command staff of the Interagency Fire Investigation Team.
- Interviewed key members of the Interagency Fire Investigation Team.
- Interviewed key staff at the National Interagency Fire Center, in Boise, Idaho, representing US Fish and Wildlife Service and the National Park Service.
- Consulted with technical advisers from the National Weather Service.
- Reviewed the pertinent portions of policy, technical, and informational documents included in Appendix A.

FINDINGS

The Review Board believes that the Cerro Grande Prescribed Fire Investigation Report of May 18, 2000, is a valid report that met its objectives of determining:

- If the Prescribed Fire Plan was adequate and complied with NPS guidance on policy and direction on fire management.
- If the prescription, actions, and procedures set forth in the prescribed fire plan were followed.
- If the prescribed fire training and experience of personnel involved were commensurate with agency qualification standards.
- Recommendations to prevent similar future occurrences and improve program performance.

The Board agrees that the findings and recommendations contained in the Cerro Grande Fire Investigation Report are logical, valid conclusions based on the information presented – with the exception of the recommendation under Finding F, p. 19. The National Weather Service (NWS) did comply with existing policies in providing weather information. The NWS does not routinely provide predicted winds

in the 3-5 day outlook due to inability to provide reliable information, because of constantly changing conditions.

The Board developed additional recommendations that they believe further support the major findings of the Investigation Team. These recommendations fall into the following six major categories, and are discussed in the next section:

- Safety
- Communications and Coordination
- Management Oversight
- Prescribed Fire Planning and Plan Review
- Contingency Planning
- Weather

RECOMMENDATIONS

Safety:

Issue: As stated in the Federal Wildland Fire Management Policy, firefighter and public safety is the first priority in every fire management activity. Prescribed fire plans should be developed to ensure that safety objectives are factored into every aspect of the plan. If components of the plan are not followed, the validity of the entire plan could be compromised, leading to unsafe conditions and safety violations.

Recommendation 1. The agency administrator is responsible to ensure that all components of the plan are followed. The prescribed fire organization should have one individual designated with the sole responsibility for safety oversight during the implementation of the burn.

Recommendation 2. The agency administrator must create a climate that promotes safety and accountability. The direction and tone the agency administrator sets is critical for making long-term institutional changes.

Communications and Coordination:

Issue: Fire activity in any vegetation type does not recognize ownership boundaries. This activity could be a prescribed or wildland fire – human caused or lightning ignition source. Vegetation management requires extensive coordination among involved landowners.

Recommendation. The Federal Wildland Fire Management Policy directs the Federal agencies to work together and include State, tribal, local government, and private landowners in planning and implementing their respective fire management programs. Coordination and cooperation are taking place to varying degrees within and among agencies and their partners. Agency administrators must ensure that their internal processes institutionalize expectations for substantial and continued coordination and cooperation.

Management Oversight:

Issue: Agency administrators must understand that the decision to use fire as a resource management tool is inherently dangerous. Because of this reality, every precaution must be secured before fire is introduced to the landscape, including thorough review of all appropriate documents.

Recommendation. The agency administrator must be held responsible and accountable for ensuring that any wildland fire management or prescribed burning activity is in compliance with the Federal Wildland Fire Management Policy and the Wildland and

Prescribed Fire Management Policy. There must be clear linkages and consistency among the prescribed burn plan, the Fire Management Plan, the Land Management Plan, and the Federal Wildland Fire Management Policy.

Issue: The Federal Wildland Fire Management Policy and its components are valid and provide an effective framework for guidance into the future. All agencies must have a clear understanding of the policy and a consistent approach to implementation.

Recommendation. The management oversight team, which was established to ensure implementation and consistency in implementation of the Federal Wildland Fire Management Policy, should be re-chartered. This team should be requested to reevaluate the May 23, 1996 Implementation Action Plan, refine it and establish new deadlines for completion of the implementation strategies.

Issue: The complexity of using fire in different geographic regions requires understanding the basic principles of prescribed burning and planning, as well as an understanding of the interaction of fuels, weather, terrain, and other local factors.

Recommendation. The National Wildfire Coordinating Group's Fire Use Working Team should review the training standards and experience requirements for prescribed fire personnel. Personnel responsible for planning and implementation of wildland fire management and prescribed fire must be qualified both in training and experience to handle the complexity of the burn they are assigned.

Issue: Prescribed fire and wildland fire management programs are competing for budget and resources.

Recommendation. Agencies must set priorities and establish criteria that allow for appropriate funding and resources to bring the wildland fuels into a manageable condition while still providing an adequate fire suppression response force.

Prescribed Fire Planning and Plan Review

Issue: To effectively implement fire management policies and achieve resource management objectives, Fire Management Plans need to be prepared in a collaborative framework. This should include appropriate public involvement and review, commensurate with the significance of the decisions to be made.

Recommendation 1. Fire management plans and prescribed burn plans should be developed and coordinated in an open collaborative process, consistent with the framework identified in the Federal Wildland Fire Management Policy. The Wildland and Prescribed Fire Management Policy prescribed fire planning section, Director's

Order #18, and the NPS Reference Manual 18 should be revised to strengthen and reflect this essential change in approach to prescribed fire planning. If necessary, other agencies should revise their internal direction to reflect this change.

Recommendation 2. In addition to the unit fire management officer and an appropriate off unit technically qualified reviewer, adjacent landowners should be afforded the opportunity to review the prescribed fire plan prior to approval.

***Issue:* There are different prescribed fire complexity rating systems being used by different agencies.**

Recommendation 1. To facilitate interagency review and collaboration, Geographical Coordinating Groups should develop consistent interagency standards. The National Wildfire Coordinating Group should review these standards.

Recommendation 2. Agency administrators must ensure that all fire planners are trained in implementing interagency geographical complexity rating standards.

Contingency Planning:

***Issue:* Because of the potential for unintended consequences, prescribed fire is one of the highest-risk activities land management agencies undertake. Contingency planning, which includes identifying necessary resources should a planned ignition exceed prescription parameters, is an essential component of a burn plan. It appears that there is no commonly accepted definition of contingency resources among all agencies.**

Recommendation 1. All agency administrators, fire program managers and prescribed fire burn bosses must be familiar with the National Wildfire Coordinating Group's report addressing Allocation of Resources.

Recommendation 2. Geographic Coordinating Groups should first establish common definitions, then develop and implement a consistent allocation process clearly described in local operating plans.

Recommendation 3. Contingency resources identified in the prescribed fire plan need to be ordered through normal wildland fire procedures to ensure their availability.

Recommendation 4. During the "go/no go" decision the check list must be completed and the burn boss must affirm the availability of adequate contingency resources.

Recommendation 5. If actions needed to keep the fire within project boundaries exceed predetermined parameters, contingency plans should indicate suppression actions as well as identifying required resources. Project burn plan budgets should reflect potential contingency expenses.

Weather:

Issue: General weather and spot weather forecasts are critical to the fire management program. If those agencies responsible for fire management programs are to provide for firefighter and public safety the fire managers must have the best available weather information to use in their decision process.

Recommendation: The National Wildfire Coordinating Group's Fire Weather Working Team should review the needs of the wildland fire managers and the capabilities of the National Weather Service to ensure that the necessary weather information is provided for firefighter and public safety. Upon completion of this review the National Wildfire Coordinating Group will provide a report of their findings and recommendations to the Secretary of the Interior, Secretary of Agriculture, and the Secretary of Commerce.

CONCLUSIONS

In addition to these topical recommendations, there are several overarching themes that the Review Board heard from individuals interviewed and appeared in much of the written material reviewed. These themes also seem to apply to other recent incidents.

We would like to reiterate and support them in this report.

- The Federal Wildland Fire Management Policy is a comprehensive, sound policy.
- The prescribed burn program is an essential tool for good resource management and agencies have had many successes.
- When agencies do fail, it is generally not because of a lack of adequate policy, standards and guidance, but a result of not following that guidance. Agencies write a plan, but do not live the plan.
- The human factor is critical in determining success or failure. This includes the attitude, involvement, knowledge and experience of key individuals throughout this process.
- Applying fire to the landscape is one of the most significant decisions resource managers make. Managers must approach the prescribed fire program as a potentially life and death situation, treating it with the seriousness and attention that type of situation deserves.
- As land use patterns and ownership's have become more complex, coordination among all the affected entities becomes more and more critical to the success of any land management activities, but particularly accomplishment of a prescribed fire program.
- What happened with the Cerro Grande Prescribed Fire could happen again if changes are not put into place to ensure that agencies "live the plan."

APPENDIX A

INDEPENDENT REVIEW BOARD CERRO GRANDE PRESCRIBED FIRE

1. Wildland Fire Management Plan – Bandelier National Monument
- Federal Wildland Fire Management – Policy & Program Review**
2. Final Report – December 1995
3. Implementation Action Plan Report – May 1996
- Wildland and Prescribed Fire Management Policy**
4. Implementation Procedures Reference Guide – August 1998
- Implementation of the Federal Wildland Fire Management Policy**
5. Allocation of Resources, Final Report to NWCG – June 1998
6. Approval of Federal Fire & Aviation Leadership Council – July 1998
- National Park Service**
7. Director's Order #18: Wildland Fire Management
Reference manual #18:
8. Chapter 6: Training, Qualifications and Certification
9. Chapter 10: Prescribed Fire
10. Chapter 11: Wildland and Prescribed Fire Monitoring
- National Weather Service:**
11. Southwest Area Fire Weather Operating Plan – Apr 1999
12. NWS Response to Interagency Report Findings and Conclusions
13. NWS Operations Manual – Chapter References
14. Southwest Area Mobilization Guide – 2000
15. Santa Fe National Forest Dispatch Procedure
16. Santa Fe National Forest Dispatch Log: 5/3/00 – 5/6/00
- Cerro Grande Incident**
17. Cerro Grande Prescribed Fire Investigation Report – May 18, 2000
18. Additional Information pertinent to the investigation – May 24, 2000
Al King, Mike Powell, Charisse Sydoriak & Roy Weaver

19. Response to Findings & Recommendations
Paul Gleason, NPS – May 24, 2000
20. Cerro Grande Helicopter Video – May 16, 2000
21. Cerro Grande Prescribed Fire Investigation Team clarifies Weather Statement
22. Lowden Ranch Prescribed Fire Review, Final Report – July 22, 1999
23. Recommendations for the National Office
24. Outlet Prescribed Fire, Grand Canyon National Park,
Investigative Team Report – May 22, 2000
25. USDI News May 17, 2000
Secretary Babbitt Names Independent Panel
26. US Dept of Commerce Memo
Assignment of technical advisors
27. C-SPAN New Mexico Video