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1/19/78

Memorandum

To: Superintendent, Rocky Mountain National Park

From: Regional Director, Rocky Mountain Region

Subject: Board of Review Report for Ouzel Fire

Enclosed is the original signed Board of Review Report for the Ouzel Fire. We have reviewed the report and feel the Board has done a fair and comprehensive review.

Our reaction to the report is to withdraw our approval of Part II - Natural Fires of Rocky Mountain National Park's current Fire Management Plan until you have reviewed the plan and responded to the recommendations made by the Review Board. We feel that a convincing case can be made to support use of fire in the management of the park and you should continue with this in mind. However, until the plan is modified and approved, your fire management program should reflect only a suppression posture.

I would re-emphasize and agree with the Board's statement on page 10 that this summer's experience ". . . should in no way discourage Rocky Mountain National Park or the National Park Service from continuing to support the role of fire in natural processes."

15/ Ellen T. Brown

Enclosure

OUZEL FIRE

STARTED	August 9, 1978
CONTROLLED	September 30, 1978
DECLARED OUT	December 4, 1978

Review Board

Kenneth R. Ashley	Associate Regional Director Park Operations National Park Service	Chairman
Dr. Richard D. Laven	College of Forestry and Resources Colorado State University	Member
Herman Ball	Fire Management Specialist Region 2 U. S. Forest Service	Member
Ron Gosnell	Boulder County District Forester Colorado State Forest Service	Member
Robert Sellers	Fire Specialist National Park Service Boise Interagency Fire Center	Member

Dates of Review - November 8 and 9, 1978

OUZEL FIRE BOARD OF REVIEW

Introduction

On November 8 and 9 a Board of Review was convened in Rocky Mountain National Park to review the Ouzel Fire that burned in the park between August 9 and September 30 when it was declared controlled.

When the fire was discovered, the park staff made the decision to manage the Ouzel Fire as a natural prescribed fire and allow it to burn. The decision to monitor the fire rather than to suppress the fire was made in accord with the park's Wildland Fire Management Plan. At approximately 11:30 a.m., September 15, the park determined that the fire would escape from its management zone and initiated suppression. High winds during the late afternoon of the 15th and on the 16th caused the fire to make substantial runs outside its management zone. The park called the Regional Office at 4:00 p.m. to request outside assistance. At 8:00 p.m. on September 15 a request was made to the Boise Interagency Fire Center for a Class I Fire Management Team to take charge of the fire. A fire team assumed responsibility for the fire on September 16 and carried out the suppression actions necessary to control the fire.

By memorandum of October 3, 1978, Superintendent Brooks requested that a Board of Review be established to review the fire and that Associate Regional Director Kenneth R. Ashley serve as Chairman.

Associate Regional Director Ashley accepted the responsibility for heading up the review and arranged for four other persons to serve on the Board with him. In selecting persons to serve on the Board, consideration was given to the need for input from knowledgeable fire management persons from other agencies having fire responsibilities, the academic sector, as well as from the National Park Service.

The Board was made up of the following members:

Mr. Kenneth R. Ashley, Associate Regional Director, Rocky Mountain Region, (Chairman)

Dr. Richard D. Laven, College of Forestry and Natural Resources, Colorado State University

Mr. Herman Ball, Fire Management Specialist, Region 2, U. S. Forest Service

Mr. Ron Gosnell, Boulder County District Forester, Colorado State Forest Service

Mr. Robert Sellers, National Park Service Fire Specialist, Boise Interagency Fire Center

Prior to convening, the board selected three major objectives for the review.

The objectives were:

- I. To determine the adequacy of the Rocky Mountain National Park Wildland Fire Management Plan with particular attention to natural fire management.
- II. To determine the adequacy of the implementation of the plan during the management of the Ouzel Fire.
- III. To determine the adequacy of the suppression efforts once the Ouzel Fire was determined to be a wild fire.

The findings and recommendations of the Board with respect to their objectives are as follows:

I. First Objective -

To determine the adequacy of the Rocky Mountain National Park Wildland Fire Management Plan with particular attention to natural fire management.

- A. Generally, the Board finds that certain deficiencies in the plan may have conspired to prevent users of the plan from making proper decisions.

Specific shortcomings noted are as follows:

1. The Environmental Review that was prepared for the Fire Management Plan, although approved, does not meet present day criteria. The Board feels that fire history should have a major role in prescribing the use of natural fire. To do this it will be necessary to develop a broad base of historical records and data. The sources for this material should be listed in a bibliography.

2. The plan does not adequately address external considerations such as air quality, adjoining developments, an increasing urban interface and existing regional fire situations and conditions.
 3. The plan does not adequately pinpoint responsibility for decision making, nor does it address the qualifications for the personnel implementing the plan.
 4. The plan is not as specific as it should be with respect to procedure when a fire exceeds prescription, i.e. continued monitoring, partial containment, or suppression.
 5. The plan does not include a precise and separate action plan. An action plan should be a short step-by-step outline detailing how to implement the plan.
 6. The plan does not provide enough prescription criteria to adequately guide the decision maker in managing natural fires. Examples of the types of criteria needed to be identified and considered are prolonged periods of drought, season of the year, 1,000 hour time lag fuel moisture, maximum size limit on one fire, number of fires going in the central Rocky Mountains, and availability of suppression resources. The board does not suggest that all of these be used, but the plan needs more than just Burning Index guides.
 7. The plan was not amended to accommodate the new National Fire Danger Rating System. Prescriptive data in the plan relates to the 1972 National Fire Danger Rating System, whereas the park was partially operating under the revised 1978 system.
- B. Recommendations for strengthening the park's Wildland Fire Management Plan.
1. The Natural Fire Management Plan (Part II) should contain a statement to the effect that it will be closely followed. Some flexibility may be acceptable but even that should be within identified constraints. If circumstances are such that adherence to the plan is impractical or impossible then suppression should be undertaken. If lack of available funding precludes carrying out the plan then suppression should be undertaken.

Note: The approved plan amounts to a contract between the park staff and those who have reviewed and concurred with the plan. Deviation from the plan constitutes a "breach" of contract.

2. Qualified personnel should be involved in the development of the plan. Consideration should be given to involving outside help for fire behavior, meteorological assistance, air quality, etc. if such capability is beyond the park staff.

Note: There is a tendency to rely on a review process to identify deficiencies. In our view, this is never as satisfactory as having the best available expertise actually participate in the formulation of a plan.

3. Fire management units should be delineated, giving consideration to fire history, vegetative types, fuel loadings, elevations, aspect, and drainages or basins where unusual fire behavior may be expected. Identification of such units will allow for and encourage better decisions by the manager having that responsibility.

Note: This is not stated so as to be critical of the present designation of three management zones. Rather, the plan should be subject to continual refinement as knowledge, experience and the state of the art allows.

4. Prescribed fire should be considered as an additional management tool.

Note: To a considerable extent, Rocky Mountain National Park is unique in that it is a wilderness with a major urban interface. Public safety, neighboring development, and air quality are very real concerns that should influence decisions on allowing a natural fire to burn. There is a good possibility that employing fire on your own terms may increase likelihood of realizing ecological objectives. Prescribed fire could be used to provide fuel breaks or safety zones between natural fire zones in the park and private developments outside.

5. The action portion of the plan should be separated and include the following:

- a. Responsibilities
- b. Decision criteria
- c. Standards for involvement of a fire behavior officer, a meteorologist, and fire management officer.
- d. Procedures for initial attack, media relations, and off resource location (people and equipment, etc.).
- e. Provisions for annual update.

Note: The board recognizes the park's concern that the volume not become too cumbersome. Considerable detail, however, is necessary to provide background, history, and data. The action plan portion can be somewhat brief, as it speaks to what will be done by whom rather than why it will be done.

- 6. The revised plan should be approved by the Regional Director in accordance with Staff Directives 76-12 and 77-1.

Note: In making the above comments and recommendations with respect to the adequacy of the Natural Fire Management Plan, the Board recognizes that the park's plan represents the efforts of a number of individuals, review by many interested parties, and approval by the Rocky Mountain Regional Office. The Board also recognizes that the Ouzel Fire is the first substantial test of the plan. In the first instance we are saying that responsibility for the plan, good or bad, is shared by the National Park Service both in and out of the Rocky Mountain National Park staff. In the second instance, the first opportunity to implement the plan was certain to expose inadequacies. While the Board is the vehicle by which these inadequacies are to be defined, the Board also recognizes that the park staff is already dealing with the inadequacies.

- 7. When the plan is revised and before it is submitted for approval, the public should again be invited to review and comment on the plan.
- 8. The park's Natural Fire Management Plan should designate the operational position that will have the responsibility

for gathering and compiling the data needed for making fire management decisions. The plan should not only designate an individual to make these decisions but also address how information is developed as a base for such decisions. The park does not have a full time fire management position so the Board feels there is a need to designate a current position that will be responsible for maintaining the park's fire management records.

9. The National Park Service Fire Management Guidelines will be issued during 1979. It will contain a section on developing a Natural Fire Management Plan. The park should utilize this guide in revising their plan.

II. Second Objective -

To determine the adequacy of the implementation of the plan during the management of the Ouzel Fire.

- A. Our findings with respect to our second objective, to determine the adequacy of the implementation of the plan, are as follows:
 1. The monitoring procedure, as outlined on pages 2 and 3 of the Natural Fire Management Plan, was not adequately carried out. This is one of the features of the plan that the Board determined was adequate and proper. Several key staff people were questioned regarding the monitoring. Certain personnel who served in the monitoring capacity were seasonal employees and unavailable during our review. Those serving as monitors were not given complete and clear cut instructions as to their responsibilities. Observations were sporadic and incomplete. As far as we could determine, what observations were made were simply relayed by radio and entered in the radio log. At least, no one could provide us with any field notes or compilations of data that would indicate that monitoring procedures were accomplished. It appears to the Board that the opportunity to gather important data was lost.
 2. Spot weather forecasts were not consistently requested or received. The plan (page 4, Part II) calls for such forecasts daily. As best the Board could determine, fire weather forecasts were received only for the period of

September 1 through September 11. Had on-site weather data been fed to the National Weather Service's Fire Weather forecaster on a daily basis, he may have forecasted the conditions that caused the problems on September 15 and 16.

3. It appears to the Board that the fire went beyond prescription during the period beginning September 5 at which time a meeting was held by the committee (consisting of Superintendent Brooks, Assistant Superintendent Godbolt, and Messrs. Essex, Menning, Stevens, and Wagner). During this meeting the committee decided to allow the fire to continue. Several factors contribute to the Board's opinion that the fire was beyond prescription and that this would have been the time to initiate full suppression.
 - a. One of the spot fires was marginally below 10,000' which put it in the Moderate Risk Zone. The plan states that fires will be allowed to burn in the Moderate Risk Zone only when the Burning Index is below 14. During this period the Burning Index exceeded 14.
 - b. During this period there were very few organized crews readily available from outside the park mostly because of commitments to the Murphy Gulch Fire.
 - c. The crowning activity combined with the burning index could be construed to be erratic behavior. Spotting also was an indication of erratic behavior.
 - d. Considerable concern for the overall Colorado fire situation was evidenced by many media announcements cautioning visitors to forested areas of the State.

Note: The Board fully recognizes how marginal the situation was. The spot fire that was in the Moderate Risk Zone was slowly moving toward the Low Risk Zone so seemed not to be a threat. However, since the park staff did not include a qualified Fire Behavior Officer, the very fact that it was a marginal situation made it a hazardous situation. The staff assumed from daily AFFIRMS reports that, since the Murphy Gulch Fire was in mop-up stage, firefighting assistance was available if needed. This was a false assumption, as was discovered on September 15, when a number of calls to outside agencies revealed there was almost no available

manpower. Under Management Plan Assumptions it is stated ". . . Third, that fire will not be permitted to spread from the defined management zones."

Admittedly, the deviation from the plan probably seemed slight at the time it was made, but in our view, the plan did not allow for the flexibility that was exercised.

4. During the review, several opinions were expressed that "substantial or significant" moisture occurred over the fire area during the burn period. The Board doubts that the moisture was substantial or significant enough to alter the overall fire situation. The nearest accurate records available (utility station at Estes Park) reveal there was moisture from time to time up through the middle of August, but there was not enough moisture to significantly affect fire danger potential in fuel model "G".

The Burning Index through the period August 9 to September 15 ranged from a low of 32 to a high of 63. The more stable index, ERC, ranged from 35 to 55 over this period. Both indices were running "high plus" throughout the period in fuel model G (spruce/fir).

It appears that decisions for managing the Ouzel Fire were influenced by informal observations and opinions that a moist situation existed, when in reality the fire area was probably in a prolonged drought situation.

Note: Following the formal review it was discovered that, for one reason or another, the park was using readings for Fuel Models C and H, rather than G. The fact that the National Burning Index System was undergoing change between 1977 and 1978 may have contributed to this circumstance.

B. Recommendation:

Our only recommendation here is that, once a plan is established, it be adhered to with extreme care.

III. Third Objective -

To determine the adequacy of the suppression effort once the Ouzel Fire was determined to be a wild fire.

Note: In the short time available, it was not possible to make an indepth review of the suppression effort. The review was concentrated more on the first two objectives than it was on the third because the Board felt those were the areas where their knowledge would be the most helpful to the Park Superintendent.

A. Our findings with respect to the third objective, the adequacy of the suppression effort, are as follows:

1. On September 15, strong winds occurred in Wild Basin and caused the Ouzel Fire to spread extensively outside of its management zone. During the afternoon of the 15th the decision was made to attempt to suppress the entire fire. At this time, there were very few suppression crews available in Colorado due to other fire activity in the State. The park's response to the fire's expanding activity was to request a Fire Management Team.
2. At 8:00 p.m. on September 15, it was agreed between the park and the Rocky Mountain Regional Office that a Class I Fire Management Team should be requested from the Boise Interagency Fire Center dispatcher. By 10:00 p.m. the Fire Boss for the team was in contact with the park. At that time additional manpower and equipment were ordered.
3. After the Fire Management team was ordered, the park staff did an excellent job in preparing to turn the fire over to the team. This effort was a major contribution to the team's effectiveness.
4. The suppression activity was effective. No increase in acreage occurred after the Departmental Overhead Team took over the fire.

B. Recommendations:

1. The park's action plan should address when consideration should be given to requesting off-park suppression assistance.

2. The park should have a documented procedure for preparing for and turning a fire over to a fire team and include this in the fire plan.
3. Fire suppression costs continue to escalate at almost unbelievable rates. Cost consciousness must become a very real factor for Fire Management teams. We recommend that efforts be continued to include this topic in the National Fire Training Program.
4. When any fire threatens to leave the park, the park's neighbors must be kept informed of the park's activities in regard to the fire. The park must continue to develop strong communication links with its neighbors. These links should be through official channels and by personal contacts. The park's action plan should list these contacts.

Additional Comments:

The Board commends the park for its prompt initiation of interpretive opportunities for interested persons. This certainly should have placed the biological results of the Ouzel Fire in a proper perspective for those availing themselves of the interpretation. It may well be that this action forestalled wholesale criticism of the park's fire program. It was brought out that audiovisual materials were being planned. The Board suggests that such material be reviewed in the Regional Office inasmuch as Service-wide policy will, at least, be touched upon.

The Board commends the park for the rehabilitation plans revealed during the review. Trail safety and restoration of the bulldozed line along the park boundary were given early consideration.

The Board wants to go on record as being fully supportive of the concept that fire is a valid factor in the forest ecosystem.

The Board believes the events that occurred on the Ouzel Fire on the 15th and 16th of September may well have been predictable. They believe that such events can often be avoided through good planning and through good execution of the plan by well qualified personnel. We again state that, in some circumstances, prescribed fire may be more useful in meeting the park's objectives than natural prescribed fire. In any event, the fact that the Ouzel Fire went beyond prescription should in no way discourage Rocky Mountain National Park or the National Park Service from continuing to support the role of fire in natural processes. Rather, this experien

should be thoroughly studied with the view of improving our capability in handling our fire management program.

Finally, it is agreed that this same Board will convene sometime in the fall of 1979 to review the progress that Rocky Mountain National Park has made with the recommendations contained herein.

Respectfully submitted:

Kenneth R. Ashley
Kenneth R. Ashley, Chairman

December 27, 19
Date

Richard D. Laven
Dr. Richard D. Laven, Member

1-3-79
Date

Herman Ball
Herman Ball, Member

12/27/78
Date

Ron Gosnell
Ron Gosnell, Member

12/28/78
Date

Robert Sellers
Robert Sellers, Member

1/9/79
Date