Management Review and Corrective Action Plan

for

The Daniel Holmes Accident Investigation

Board of Review Members:

Richard Martin (Chair), Superintendent, Sequoia & Kings Canyon National Parks — Date 3/2/05

Richard Powell, Chief Division of Risk Management, National Park Service — Date 3/8/05

Edy Williams-Rhodes, Chief Division of Fire and Aviation, National Park Service — Date 3/8/05

Marti Leicester, Associate Regional Director of Operations, Pacific West Region — Date 3/7/05

Management Review and Corrective Action Plan
Final Draft

PURPOSE AND STATEMENT

The purpose of the Board of Review (BOR) is to evaluate the Holmes Accident Investigation Report of December 13, 2004 submitted by the Serious Accident Investigation Team (SAIT). The BOR must also develop conclusions and recommendations with implementation assignments and follow-up dates. The Board met in Albuquerque, New Mexico on February 16 and 17, 2005.

The BOR has reviewed and accepted the SAIT Report as written. The SAIT Report is the equivalent of the Factual Report as defined in Departmental Manual 485, Chapter 7. The SAIT Report also provides recommendations that were considered by this Board.

This BOR Report serves as the Management Review and the Corrective Action Plan for this incident. As a result of deliberations, this document provides further findings, clarification for SAIT findings, and expands upon the recommendations in the SAIT Report.

DESCRIPTION OF INCIDENT

On Saturday, October 2, 2004, at 12:46 p.m., firefighter Daniel Holmes, age 26, was transitioning from a tree size-up to a hose relocation task. A burning piece from the top of a snag fell and struck him on the head. Upon impact, he was rendered unconscious and did not regain consciousness. After placing him on a backboard, other crew members moved the injured firefighter to a safe location and provided further medical attention; he was then transported by park ambulance to a helicopter landing location for transport to Fresno, California. Resuscitation efforts began immediately, but were not successful. Holmes was pronounced dead at 1:58 p.m.

This accident occurred on the Grant West Omnibus Prescribed Burn, located in the Grant Grove area of Kings Canyon National Park. Daniel was a member of the Arrowhead Interagency Hotshot Crew, based at Sequoia and Kings Canyon National Parks.

The BOR extends its deepest sympathies to Daniel's family, crew members, friends, and the employee family of Sequoia & Kings Canyon National Parks. This horrible tragedy will not be forgotten. The BOR hopes that, through this investigation effort, the firefighting community can learn from this accident and prevent future occurrences.

FINDINGS

In addition to the findings listed in the Holmes Accident Investigation Report (SAIT Report) beginning on page 17, the Board makes the following clarification and additions:

1. On page 22 under "Other Findings," the SAIT Report reveals that the toxicology test for Daniel Holmes indicated a blood-alcohol content (BAC) of .06%. After extensive

evaluation of the facts and interviews, this Board believes that there is no conclusive evidence suggesting that the BAC was a result of alcohol consumption on the day of the accident. Scientific information suggests that the BAC may have been the result of post-mortem decomposition (see pages 22-23 of the SAIT Report for a detailed description of the investigation surrounding this finding).

This Board has concluded that Daniel Holmes was not impaired in any way on the day of the accident. This conclusion is based on the SAIT Report investigation, SAIT interviews, additional interviews, and the deliberations of this Board. For example:

- **SAIT Investigation** – The elevated BAC level was discovered one month after the accident when the toxicology report was complete. If alcohol use had been a contributing factor in the accident, the Board believes that corroborating evidence would have appeared during the course of the thorough SAIT investigation. Prior to receiving the autopsy report, nothing in the investigation had indicated that alcohol was a factor in the accident.
- **SAIT Interviews** – The SAIT team re-interviewed Daniel's crewmembers who stated that Daniel behaved as a fully-functioning firefighter on the day of the accident and they observed no evidence that he was under the influence of alcohol. An Arrowhead crewmember stated, "*I worked very closely with [Daniel]. He was my saw partner and I paid attention to him because in this line of work you've got to watch out for each other….If I had in any way suspected there was an issue, I would have addressed it. It would have been unacceptable*." Due to the consistency of these statements, the Board believes the crew members are credible.
- **Additional Interviews** – New information was obtained after the conclusion of the SAIT investigation by Robert Wilson, Law Enforcement Specialist at Sequoia & Kings Canyon National Parks. Wilson interviewed the non-fire EMS personnel who responded to the accident including an NPS ranger, a private flight nurse, and a private helicopter paramedic. All three individuals indicated that there was no evidence of alcohol on Daniel Holmes during resuscitation efforts. Both the flight nurse and paramedic regularly encounter patients under the influence of alcohol. They both stated that they believed they would have detected the odor had it been present on Holmes and would have noted this information in their runlogs. Given that these statements came from unbiased, third-party professionals, the Board believes they add further credibility to previous crew member statements.

2. During the course of this incident, it has become apparent that the draft Line of Duty Death Protocol for the National Park Service needs to be field-reviewed, finalized, and approved.

3. During the course of this incident, it has become apparent that the SAIT processes for the National Park Service, as they relate to all types of serious incidents, are confusing and need to be clarified and standardized.

RECOMMENDATIONS AND CORRECTIVE ACTION PLAN

This section presents the Board of Review's recommendations for follow-up actions which are based on the recommendations in the SAIT Report with a few additions. These corrective actions should be implemented on an interagency basis as appropriate.

Recommendation #1
The National Park Service should propose that the National Wildland Fire Coordinating Group (NWCG):

- Review the findings and proposals of the 1993 National Snag Hazard Report for progress and additional implementation needs. Make this report available on the internet.
- Review the "18 Situations that Shout Watchout" and consider the addition of a new "watchout situation" addressing hazard trees including burning snags.
- Evaluate the adequacy of the existing training materials focusing on firefighter safety when working in the immediate vicinity of hazard trees including burning snags. If needed, create a cohesive national education program with this emphasis.

Action	Prepare memo to NWCG from NPS Director
Responsibility	NPS Chief, Division of Fire and Aviation Management
Due date	May 15, 2005

Recommendation #2
The National Park Service should propose to the National Wildland Fire Coordinating Group (NWCG) that the Fireline Handbook, S-212 Wildland Fire Chain Saws Instructor Guide, and Incident Response Pocket Guide (IRPG) have consistent information concerning hazard tree safety and mitigation. As a minimum, we recommend the following:

- Language should state that all burning snags are dangerous, regardless of the length of time they have been burning (as opposed to the reference on page 72 of IRPG).
- Language should state that at all times, even during the size-up phase of tree felling, someone will be designated as a lookout to watch and warn personnel of objects falling from burning live trees and burning snags (as opposed to the reference in Unit 3, page 3.34 of the S-212 instructor guide and the reference on page 60 of the Fireline Handbook).

Action	Prepare a memo to NWCG from NPS Director
Responsibility	NPS Chief, Division of Fire and Aviation Management
Due date	May 15, 2005

Recommendation #3
The hazard mitigation protocol of the NWCG Risk Management Process, including LCES (lookouts, communication, escape routes, and safety zones), is an extremely valuable process that applies to fuels and prescribed fire projects as well as suppression activities. The Incident Action Plan Safety Analysis (ICS 215A) should be required for operational periods of National Park Service prescribed fires where Incident Action Plans are required.

Action	Issue memo to field to clarity requirements
Responsibility	Fire Management Program Center
Due date	April 15, 2005

Recommendation #4
The National Park Service should develop a template for a Job Hazard Analysis (JHA) addressing safety when working in the immediate vicinity of hazard trees including burning snags. This national level example will help fire supervisors generate their own JHAs locally.

Action	Prepare an example Job Hazard Analysis (JHA) and share with interagency partners on Federal Fire and Aviation Safety Team (FFAST)
Responsibility	Fire Management Program Center
Due date	June 15, 2005

Recommendation #5
The National Park Service should increase opportunities for firefighters and first-line supervisors to attend Fireline Leadership and other training emphasizing situational awareness.

Action	Finalize and implement the draft NPS Fireline Leadership Training Plan
Responsibility	Fire Management Program Center
Due date	October 1, 2005

Recommendation #6
The National Park Service should release a Wildland Fire Operations Information Memo prior to the 2005 fire season requiring that a review of "hazard trees" be included in all NPS wildland fire safety refreshers conducted in 2005. The memo should direct employees to the best training information available on snags and hazard trees.

Action	Issue memo to field
Responsibility	Associate Director for Visitor and Resource Protection
Due date	February 15, 2005

Recommendation #7
National Park Service prescribed fire burn bosses should ensure that the IAP includes a Medical Plan, that incident personnel are briefed about emergency procedures, and non-fire personnel who are listed in the Medical Plan are available and aware of project status.

Action	Develop an in-park protocol
Responsibility	Sequoia & Kings Canyon National Parks staff
Due date	April 15, 2005

Action	Issue memo to field to clarity requirements
Responsibility	Fire Management Program Center
Due date	April 15, 2005

Recommendation #8
The National Park Service should finalize the draft Line of Duty Death Protocol.

Action	Field-review, finalize, and approve the draft document that exists
Responsibility	Special Agent in Charge
Due date	July 1, 2005

Recommendation #9
The National Park Service should develop standardized procedures for investigating serious accidents as defined in Departmental Manual 485, and these procedures should be reflected in all relevant NPS Director's Orders and Reference Manuals. At a minimum, this effort should include the following: a sample SAIT Team delegation of authority outlining role and responsibilities, lead investigator qualifications/training, and an approved format and process for submittal of SAIT documents.

Action	Establish an interdisciplinary, interagency working team to accomplish the above task
Responsibility	Chief, Division of Risk Management
Due date	June 1, 2005

Recommendation #10
The National Park Service should work at all levels (park, regional, national) to develop better strategies for prescribed fire and wildland fire use that reduce risks to firefighters as well as achieve air quality and National Fire Plan objectives.

Action	Continue to actively participate on the California Wildland Fire Coordinating Group and California Fire Alliance to address issues and concerns. Continue to join with interagency partners to strengthen relationships with the California Air Resources Board and the Federal Environmental Protection Agency.
Responsibility	Pacific West Regional staff and SEKI staff
Due date	ongoing

Action	Continue to elevate issues and concerns to the Wildland Fire Leadership Council.
Responsibility	Chief, Division of Fire and Aviation Management for NPS Director
Due date	ongoing

PUBLIC RELEASE OF DOCUMENTS

The Board of Review (BOR) evaluated the Draft Communications Plan outlining the release timeline, protocol and procedures. The primary objective of the Communications Plan is to: *Release the final report documents of the Holmes Incident in a timely and forthright manner respectful of the impacts to the family*. It is recognized that no information will be released prior to the review of the final report documents by the Solicitor, the approval of the NPS Designated Agency Safety and Health Official (DASHO) and subsequently the NPS Director.

Follow-up actions to the BOR meeting include finalizing the NPS Communications Plan - Holmes Fatality Investigation and Management Review for approval. In the interest of full disclosure, the BOR recommends that the Communications Plan be adopted and as indicated in the Communications Plan, the following documents be released to the public:

- Cover memorandum for Transmittal of Management Review and Corrective Action Plan for the Daniel Holmes Fatality.
- Board of Review Management Review and Corrective Action Plan (this BOR Report) which will be attached to the aforementioned memorandum.
- The full text of the SAIT Report, minus Appendixes 9 and 10 which include excerpts from the coroner's and autopsy report and interview transcripts respectively.
- All documents released, whether it is by hard copy, via an NPS webpage, or contained in a CD will contain the same information.
- Family members will be personally briefed prior to the release of the documentation within the final reports, as delineated in the Communications Plan. (Approximately 2-4 hours before general release.)

Specific procedures for the release of these documents will be outlined in detail in the final Communications Plan.

-End of Management Review and Corrective Action Plan.-

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