

Pagami Creek Fire

Regional Decision Review

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U.S. Forest Service
8901 Grand Avenue Place
Duluth, Minnesota

Pagami Creek Fire - Decision Review

On October 30 – November 2, 2011, a review of the final fire documentation package from the Pagami Creek Fire, Superior National Forest (NF), was conducted looking at decisions made by line officers and Incident Management teams based on the Delegation of Authority from the Forest Supervisor.

This review team consisted of Jim Thomas, Fire and Emergency Operation Specialist for the Eastern Region and Jim Bertelsen, a Superior NF employee acting in his capacity as President of local NFFE Union 2138. The review was completed at the request of the Forest Supervisor of the Superior NF to review the decision progression of the Pagami Fire.

The Team reviewed all Incident Action Plans (IAP), ICS 209's, Unit logs of Command and General Staff positions (ICS 214's), decisions documented in WFDSS, fire weather and fire behavior forecasts. We also interviewed the following line officers from the Superior NF that were involved in decisions concerning the Pagami Creek Fire: Forest Supervisor of the Superior NF, and District Rangers for the Kawishiwi, LaCroix and Tofte Ranger Districts.

Key Decisions Reviewed

Decision 1 – On or shortly after August 18, 2011, the decision to monitor the Pagami Creek Fire located in the Boundary Waters Canoe Area Wilderness (BWCAW), Superior NF, Kawishiwi Ranger district rather than full containment. At this point, fire would be monitored by forest aviation resources with established action points.

Information about the Decision:

- Many options were discussed between the District Ranger and the Forest Supervisor before the decision was made.
- Fire was put into monitoring status but with action points in WFDSS; Keep fire South of Fernberg corridor and keep all areas possible open, to public use.
- Fire was completely in Wilderness and a good distance from private land.
- Predicted weather forecasted rain and some other fires that had been in monitoring status had gone out on their own.
- District Ranger believed the fire would go out on its own.
- Strong to Moderate wind event on August 24, 2011, resulted in no smoke, flame or fire movement.
- The August 26, 2011, fire started to become active and ran 1.5 miles, about 135 acres that consisted of about one hundred small spot fires.

Decision 2 – On or about August 26, 2011, Decision to bring in a Minnesota Type II Incident Management Team (IMT2) to manage the fire after a 135 acre increase in size.

Information about the Decision:

- Decision involved the District Ranger and Forest Supervisor. They looked at photos where fire was heading, consulted with the Fire Behavior Analyst, looked at fire weather forecast, time of year (late August), and weather that predicted a normal fall (historically 1.6 inches precipitation).
- Even though Pagami fire increased in size 135 acres, other fires being managed in the BWCAW at the same time saw no increase in size.
- Forest Supervisor talked with the Type II Incident management team about risk management and using burning out as the preferred tactic because of the spotty nature of the 135 acre growth.
- Forest Supervisor flew the fire on August 29, 2011, and observed the fire bumping up against swampy areas and going out.
- The spotty burn would be very labor intensive to deal with as well as the associated risk to firefighters with limited safety zones.
- To protect the Fernberg Corridor, burning out was the better decision than going direct on all spot fires.

Decision 3 - On or about August 29, 2011, the decision to burn out a large section of the fire (nearly 2000 acres) to prevent fire movement north, toward the Fernberg area or consider full containment.

Information about the Decision:

- Forest Supervisor signed Burn Plan on or about the 31st of August for a large burn out to protect the Fernberg corridor.
- The Type II IMT wanted to put up sprinkler systems for a better probability of success of the burn plan.
- Fire received some rain on the first day of implementing burn plan.

Decision 4 – On or about September 9, 2011, with current IMT2 nearing 14 days on assignment, decision to replace current IMT2 with another Minnesota IMT2.

Information about the Decision:

- A short IMT2 was ordered since fire seemed to be winding down and fire weather had moderated.
- Fire became more active on September 10-11, 2011, growing to near 4000 acres.
- Team began filling positions for long team configuration as fire became more active.

- Many Fire Spread Probability (FSPRO) projections were run on September 11, 2011, preparing for an active day on September 12, 2011.
- Farsite and FSPRO did not show potential for fire growth over 4-5 miles and Team had nothing in their previous experience to predict an event of this magnitude was about to happen.
- September 12, 2011, Pagami Fire moved near 16 miles and burned almost 90,000 acres that day.
- The weather service employees commented they had not seen this before where strong winds and instability in the atmosphere combined to produce this event.
- Factors that came together on September 12, 2011, creating this extreme fire movement were never seen before by the people managing the fire.
- Other fires being monitored that day had no movement.
- This was extremely unusual fire behavior this close to the end of fire season.

Decision 5 – On or around September 12, 2011, decision to order national Type 1 Team (IMT1)

Information about the Decision:

- On September 12, 2011, it was determined that the fire had burned outside the wilderness boundary but fire had held from moving North toward Fernberg corridor.
- A Facilitated Learning Analysis (FLA) team was ordered on September 14, 2011, for a shelter deployment that occurred on September 12, 2011. The Deputy Forest Supervisor was assigned to oversee the Team.
- Forest area closures to the public, due to the fire, were being managed throughout the duration of the incident and on September 13, 2011, the closure area increased significantly.
- IMT1 assumed command of the incident on September 15, 2011, integrated with the IMT2.
- Measurable rain received on or around September 13-14, 2011, reducing fire behavior and allowing some areas open to the public. Shortly after, a warming trend developed and some areas were once again closed to the public.

Review Findings

Many discussion/decision points and sharing of important information showed active involvement from Line officers and Fire management personnel with no indication of missed or overlooked information.

From the beginning all information indicated this fire to be a good candidate for monitoring within the wilderness based on weather forecasts, normal monthly precipitation averages, time of year and the knowledge of all previous managed fires earlier this season.

From August 18-September 11, 2011, and from September 13, 2011, to current, this fire had acted like and resembled the historical fires in the BWCAW.

In preparation for the predicted weather on September 12, 2011, there was no specific information, previous fire behavior on this incident, weather forecast or fire weather warnings that were missed or overlooked by the Team or forest leadership that would have predicted the unprecedented movement of the fire on September 12, 2011.

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Professional experience: assignments with federal and State land management agencies, including the US Forest Service and the State of Colorado. Permanent positions include: Forester, Fire Control Officer, District Ranger, Fire Management Officer, Fire Staff Officer and Regional Fire & Emergency Operations Specialist. Assignments include experience at most administrative levels (field, district, forest, state, and regional offices) and service in management operations.

Training experience: actively involved in training and served as instructor, unit leader, steering committee member of local, regional, and national training courses including S-420, S-520 and S-620; has conducted training in the United States, Canada and France.

Incident management experience: over 25 years of involvement in incident management team operations including service as an Type 1 Incident Commander, Type 1 Operations Section Chief and Type 1 Safety Officer on wildland fire incidents, prescribed natural fire, wildland fire use events, and all hazard emergency responses.

Education: Bachelor of Science in Forestry from the Michigan State University.

Professional Affiliations: Society of American Foresters, International Association of Wildland Fire.