



National Predictive Services Group

Leadership in Decision Support Services

July 12, 2006

To: Geographic Area Center Managers and Coordinating Groups
From: National Predictive Services Group
Subject: **Fuel and Fire Behavior Advisory Issuance and Dissemination**

Issue

In the past year numerous Safety Alerts have been issued at the local and GACC levels describing fuels/fire danger conditions determined to be non-typical and a threat to firefighter safety. Nomenclature, formatting, and dissemination of these alerts has not been well coordinated and does not dovetail with established NWCG Safety & Health Working Team (SHWT) Safety Alert Guidelines.

Background

A significant number and variety of "Safety Alerts" have been issued during the 2005 and early 2006 fire seasons that describe greater than average fine fuel loading and its potential impacts on fire behavior and firefighter safety. While the message and topics contained in these reports are important, valid, and fairly consistent among Geographic Areas, the "safety alert" nomenclature used and wide range of format differences have led to some confusion.

The intent of these safety messages is clearly to identify fuels and fire danger conditions that are thought to be non-typical and a concern for firefighter safety. The use of easily recognized templates (consistent format, heading, style, color striping along margins) is important to provide consistency and context for the firefighter. The "Safety Alerts" issued in 2005 and 2006 do not conform to the guidance issued by the NWCG Safety and Health Working Team (SHWT) regarding the Safety Alert program.

The SHWT home page (<http://safenet.nifc.gov/notice.nsf>) describes three types of Safety Alerts:

- **Safety Warning:** A Safety Warning addresses wildland fire safety hazards that pose an imminent threat, or have potential to pose a threat, to life or property.
- **Safety Advisory:** A Safety Advisory addresses wildland fire safety information that isn't related to imminent or potential threats of injury.
- **Safety Bulletin:** A Safety Bulletin is a factual confirmation of a serious wildland fire accident, incident or fatality.

The National Predictive Service Group (NPSG) believes that protocols should be established that clearly define the nomenclature, standard template, coordination, and distribution of advisory messages being issued at the geographic area level and above.

Predictive Services and Coordination staff at all levels should be involved with the issuance of any fuels/fire behavior advisories covering a large percentage of their Geographic Area(s) so they can carefully consider both the content and intended audience of the messages. Also, clear direction is needed so future messages are coordinated with SHWT Safety Alert procedures and e-mail distribution system.

On June 1, 2006 a letter, along with a proposed template, was distributed to the Geographic Area Center Managers describing the current situation along with recommendations to improve it. The following day, June 2, 2006, the issue was further discussed on the 09:30 MDT Coordinators Conference Call. Comments and suggested changes to the recommendation were to be sent and collected no later than June 15, 2006. No comments or suggested edits were received. On June 23, 2006 the National Multi-Agency Coordinating Group (NMAC) was briefed and supports the following proposal.

Fuels/Fire Behavior Advisory Protocols

Below are the protocols to be used when issuing Geographic Area Fuels and Fire Behavior Advisories (or other advisories) in order to address the concerns highlighted above:

Preliminary Steps:

- 1) NICC will develop a national map to display area affected with links to archived advisory messages.

When a situation arises that warrants an advisory message:

- 1) Determine area of extent
 - a. If local area only (single agency unit or county) →Local area should issue advisory or safety message (Use of Standard Template strongly recommended). No other GACC action needed.
 - b. If geographic in scope (multiple units, counties, or significant portion of geographic area):
 - i. Involve Predictive Service Unit Staff to get their input/feedback
 - ii. Discuss message on 09:30 Coordinators call to determine if other GACCs are facing same issue
 - iii. Review & tailor message for content, accuracy, suitability and distribution (Predictive Service staffs at Geographic and/or National levels, as appropriate, will coordinate to ensure message is appropriate for entire area of concern)
- 2) Post advisory according to protocols listed below.

Posting Protocols

1. Use Standard Template (see attachment)
2. Post Fuels/Fire Behavior Advisories on the Fuels/Fire Danger Web page (this standard location is needed so users can find this information the same place on all GACC/NICC web sites).
3. Once advisories are finalized, send a copy and the url link to NICC. Include detailed description of area affected.
4. NICC will post to a national map and archive messages
5. It is recommended that Urls and email messages posted or sent out by the GACCs informing users about the advisory contain a link to the NICC Fuels/Fire Behavior web page and national map (this will inform users about other fuels/fire behavior advisories that are posted across the country)
 - a. GACC webpages can include “thumbnails” of national map
6. GACCs will determine when the advisory message is no longer valid and contact NICC to remove the advisory link off the webpage and map.

Safety Advisories

1. Once a situation elevates to become a national concern (multiple Geographic Areas involved, likelihood of resources from around the country being engaged, or elevated safety concerns), the Predictive Service Staff at NICC will coordinate with Safety and Health Working Team (SHWT) representatives to issue a "Safety Advisory" through the SHWT Safety Alert Program.

/s/ Thomas A. Wordell

National Predictive Services Group Chair

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-Attachment: Fuel/Fire Behavior Advisory Template

Attachment

Template on Following Page

Geographic Area(s) Name

Fuels and Fire Behavior Advisory

Subject: Explain (e.g. Heavy Fine Flashy Fuel Loadings and Potential for Extreme Fire Behavior)

Discussion: The wet winter throughout the Great Basin has caused tremendous fine fuel growth in native, non-native and noxious weeds. Specifically, the non-native and noxious weed components, cheat grass (*Bromus tectorum*) and Red Brome (*Bromus rubens* L) have increased the amount of fine flashy fuels.

Fuel loadings in fine fuels are heavy averaging 1500 to 2000 pounds dry weight. This has been reported in Idaho, Nevada, and Utah in the Canyon Lands and Great Basin ecosystems. Unusually heavy fuel loadings above 1000 pounds dry weight have also been reported in southern Nevada and southern Utah in the Mojave Desert ecosystem.

Fine fuels have been reported under stands of pinyon/juniper where it does not usually occur. Ignitions in these areas along with other ecological impacts from previous year's insect damaged and diseased vegetation along with the decreasing live fuel moisture values will be additive. **Intensity and severity will increase and will significantly affect burning conditions.**

Concerns to Firefighters and the Public:

- Anticipate fire to creep under wetlines and retardant lines in areas where fine fuel matting is seen.
- Anticipate any ignition in flashy fine fuels to ignite easily and move rapidly. **You can't out run it!**
- Anticipate fire whirls because of a combination of fine flashy fuels, terrain, dry atmospheric conditions and strong surface instability.
- Anticipate large acres to be consumed in a short period of time.
- Fire Behavior will burn the fine flashy fuels leaving some shrub components until the live fuel moisture values drop to about 115% to 120%. **Watch out for re-burn situations!**
- Once the live fuel moisture values fall, flaming fronts will elongate and fires will burn with more intensity and fire behavior will become more extreme.
- Anticipate fires to exhibit extreme spread rates, elongated flaming fronts, and increasing fire brands; **expect more long range spotting.**
- Anticipate dependent and independent crown fires in the insect infested conifer stands.

Mitigation Measures:

- Indirect tactics may have to be used earlier this year.
- Ensure firefighters have good anchor points - keeping one foot in the black.
- Have adequate numbers of Field Observers who understand the effects of weather changes, topography and can see the flaming front.

Area of Concern: Insert map or explain in detail geographic extent of area of concern

NOTE: text in black is editable and should be tailored to fit specific situation for advisory message. **Title and topic areas of advisory are to be in RED. Topic area titles to be standard.**

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