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Purpose

To provide members of the Alaska Wildland Fire Coordinating Group (AWFCG) with a communication strategy to engage the public in smoke information from wildland fires which include prescribe fires, fire use and wildfires, occurring in the State of Alaska.

Background

The increase in smoke throughout Alaska during the 2004 and 2005 fire seasons hampered fire suppression operations, aviation operations, motor vehicle operations, tourism and recreation. This strategy provides a collective approach to informing the public about smoke-related issues.

Communication Goals

- Develop a set of key messages to be used by AWFCG member organizations in order to project one voice in a unified effort regarding smoke issues and mitigation measures.

- Provide focused communication products that support the communication goals of this strategy.

- Provide Alaskans with information about smoke-related issues stemming from management of wildland fires.

- Describe measures that AWFCG organizations and target audiences can take to mitigate health concerns.

General Audiences

- Media.
- Members of the public.
- Local, state and federal agencies.
- Local, state and federal elected officials.
- Native villages and communities.
- Native corporations.
- Employees, retirees and family members.

Strategy

The Smoke Education Communication Strategy will be conducted in four phases:

Phase	Overview
Phase I	**Preliminary Phase**. Initial strategy planned and approved. Posters and flyers printed. Web site plan implemented. News release issued to kickoff campaign.
Phase II	**Contact Phase**. Posters distributed to schools and key publics. Media interviews arranged with AWFCG members to promote smoke communication goals. Include smoke information and key messages in, daily Alaska Fire Service (AFS) Fire Update, news releases, feature articles, and during media interviews. Rotate use of smoke displays at key events. Make displays available for use at Public Lands Information Centers.
Phase III	**Maintenance Phase**. Continue strategy implementation. Discuss smoke issues at every opportunity; i.e., Fire in Alaska teacher/educator workshops, agency interpretation and/or education outreach programs, Community FIREWISE workshops, outreach events including local and state fairs, etc. Include key messages in Media Fire Awareness training (An AFS initiative in the Fairbanks area to educate media personnel about fire activities).
Phase IV	**Review Phase**. Every winter the AWFCG, Wildland Fire Prevention, Education and Awareness Committee (WFPEAC) will review the strategy and update it accordingly. Strategy revisions will be presented to AWFCG during the January quarterly meeting.

Key items to accomplish within the strategy include:

- Incorporating information about health effects of smoke and potential for smoke from wildland fires, which includes prescribe fires, wildfire and fire use, in annual newspaper notices such as those used in the FIREWISE program.

- Working with local communities to incorporate information about health effects of smoke and what to do about it into FIREWISE and other public fire prevention activities. Refer to the website http://www.epi.hss.state.ak.us/wildfire/default.htm for “Wildfire Smoke - A Guide for Public Health Officials” and links to other publications for public education guidelines.

- Incorporating information on the role of fire, its importance in Alaska, the inevitability of smoke impacts in the short term, and the long-term ecosystem benefits in communications to the public.

- Using Fire Information Officers to disseminate information on smoke health effects during wildfires.

- Identifying sensitive features and individuals most at risk before the fire season (i.e. communities, villages, recreational areas, tourism industry, public highways, hospitals, schools, groups at higher risk for smoke related problems, etc) and target them for dissemination of special information on how to prepare for and deal with smoke when it occurs.

- Pre-planning public health mitigation measures, ranging from increased public education during the incident to providing respite from smoke during a smoke event.

Tactics

- Develop communication products that are cost effective and suitable for multiple audiences.

- Design and purchase two displays that can be shared and rotated among AWFCG members, the Public Lands Information Centers and other visitor centers for use at a variety of outreach events, meetings, and conferences.

- Focus poster effort on schools and interested parties.

- Include smoke messages in the AFS Prescribed Fire (Rx) Communication Strategy and discuss smoke impact and health issues where applicable.

- Include smoke messages at the Fairbanks Interagency Media Fire Awareness Day.

- Work with the media to promote public understanding through news and feature articles. Include smoke information during media interviews.

- Incorporate smoke education messages into outreach displays and distribute materials at meetings, fairs, trade shows and other outreach events such as state fairs.

- Develop an AWFCG Smoke Education web page or place information on an existing web page that has communication products for download. Other AWFCG member web sites can mirror or link to the site.

- Notify target audiences in advance of activities that may generate smoke, such as prescribe fire and describe measures taken to minimize public impacts.

- Include information about smoke and web links to helpful sites about smoke and air quality in all news releases during the fire season.

- Incorporate smoke messages in recorded information and telephone hotlines.

- Incorporate smoke messages into AWFCG member outreach products such as newsletters, web sites and agency radio broadcasts, such as those of the National Park Service.

Success

The WFPEAC will monitor the success of the strategy. WFPEAC will perform an annual review of the strategy during the winter season and inform the AWFCG of recommended updates and revisions during the January quarterly meeting.

Tools and Products

- News Release
- Key Messages
- Talking Points
- Public Service Announcement
- Poster
- Flyer
- Web Site Information
- Displays

Target Audiences

City/Towns/Borough Government & Other Communities
See Appendix K (Communities at Risk)
State Government
Governor Palin
State Senator Joe Thomaas
State Senator Gary Wilken
State Representative Mike Kelly
State Representative David Guttenberg
State Representative Scott Kawasaki
State Representative Jay Ramras
Alaska Department of Transportation

Alaska Department of Fish and Game
Alaska Department of Natural Resources
Alaska Railroad
Alaska State Troopers
Ted Stevens Anchorage International Airport / Fairbanks International Airport
Federal Government
Bureau of Land Management
Bureau of Indian Affairs
Federal Aviation Administration
National Park Service
U.S. Fish and Wildlife Service
National Weather Service
USDA Forest Service
U.S. Congressional Representatives
Congressman Young
Senator Murkowski
Senator Stevens
U.S. Military
U.S. Army Alaska
U.S. Army Fort Wainwright
U.S. Army Fort Richardson
U.S. Air Force Eielson Air Force Base
U.S. Air Force Elmendorf Air Force Base

Other Interested Parties
Welcome Centers / Visitor Centers / Information Centers / Tour Operators
Tribal Governments / Organizations
Association of Village Council Presidents
Chugachmiut Corporation
Tanana Chiefs Conference (TCC)
Council of Athabascan Tribal Governments (CATG)

Target Media

Newspapers

Daily

Anchorage:	Anchorage Daily News
Eagle River:	Alaska Star
Fairbanks:	News-Miner
Juneau:	Juneau Empire
Kenai:	Peninsula Clarion

Business

Juneau:	Alaska Journal of Commerce

Non-daily

Anchorage:	Alaska Business Monthly
Anchorage:	Alaska Journal of Commerce
Bethel:	The Delta Discovery
Bethel:	Tundra Drums
Haines:	Chilkat Valley News, Eagle Eye News
Nome:	Nugget
Skagway:	News
Valdez:	Star
Wasilla:	Frontiersman

Alternative

Anchorage:	Anchorage Press

Promotional

Cordova:	Times

TV Stations

ABC network

Anchorage: KIMO (Ch. 13)
Fairbanks: KATN (Ch. 2)
Juneau: KJUD (Ch. 8)

CBS network

Anchorage: KTVA (Ch. 11)
Sitka: KTNL (Ch. 13)

Fox network

Anchorage: KTBY (Ch. 4)
Fairbanks: KFXF (Ch. 7)

Independent

North Pole: KJNP (Ch. 4)

NBC network

Anchorage: KTUU (Ch. 2)
Fairbanks: KTVF (Ch. 11)

PBS network

Anchorage: KAKM (Ch. 7)
Fairbanks: KUAC (Ch. 9)
Juneau: KTOO (Ch. 3)
Kodiak: KMXT (Ch. 9)

UPN network

Anchorage: KYES (Ch. 5)

Radio Stations

News / talk

Anchorage: KENI (650 AM), KFQD (750 AM)
Fairbanks: KFAR (660 AM)
Juneau: KJNO (630 AM)

Alternative

Anchorage: KRUA (88.1 FM)

Classical / jazz

Anchorage: KLEF (98.1 FM)

Country

Anchorage: KASH (107.5 FM)
Fairbanks: KIAK (102.5 FM)
Juneau: KTKU (105.1 FM)

Mixed music

Anchorage: KMXS (103.1 FM)
Fairbanks: KWLF (98.1 FM)
Fairbanks: KUWL (103.9 FM) (Good Time Oldies)
Houston: KQEZ (92.1 FM)
Juneau: KINY (800 AM)
Nome: KNOM (780 AM / 96.1 FM)
Wasilla: KMBQ (99.7 FM)

Nostalgia

Ketchikan: KFMJ (99.9 FM)

Public

Anchorage: KSKA (91.1 FM)
Barrow: KBRW (680 AM)
Fairbanks: KSUA (91.5 FM)
Fairbanks: KUAC (89.9 FM)
Fort Yukon: KZPA (900 AM)
Haines: KHNS (102.3 FM)
Homer: KBBI (890 AM)
Juneau: KTOO (104.3 FM)
Ketchikan: KRBD (105.9 FM)
Kodiak: KMXT (100.1 FM)
Petersburg: KFSK (100.9 FM)
Sitka: KCAW (104.7 FM)
Talkeetna: KTNA (88.5 FM)
Valdez: KCHU (770 AM)

Religious

Anchorage:	KATB (89.3 FM)
Glennallen:	KCAM (790 AM)
Nenana:	KIAM (630 AM)
Nome:	KICY (850 AM / 100.3 FM)
North Pole:	KJNP (1170 AM / 100.3 FM)
Petersburg:	KRSA (580 AM)

Rock

Anchorage:	KBFX (100.5 FM), KGOT (101.3 FM), KWHL (106.5 FM)
Fairbanks:	KKED (104.7 FM)
Fairbanks:	KXLR (95.9 FM)
Juneau:	KSUP (106.3 FM)
Kenai:	KZXX (980 AM)

Other

Anchorage:	KNBA (90.3 FM)
Galena:	KIYU (910 AM)

Appendices

A News Release *(for subsequent revision to announce website activation)*
B Key Messages
C Talking Points
D Public Service Announcement
E Poster
F Flyer
G Web Site Plan
H Display Panel 1
I Display Panel 2

Alaska Wildland Fire Coordinating Group

U.S. Department of the Interior
- Bureau of Indian Affairs
- Bureau of Land Management
- National Park Service
- U.S. Fish and Wildlife Service

State of Alaska
- Department of Natural Resources,
- Division of Forestry
- Department of Fish and Game
- Department of Environmental Conservation

U.S. Department of Agriculture
- U.S. Forest Service

Native Organizations
- Association of Village Council Presidents
- Chugachmiut Corporation
- Tanana Chiefs Conference

News Release

XXX XX, XXXX

AWFCG TACKLES SMOKE INFORMATION CAMPAIGN

To be developed.

Key Messages.

- Public and firefighter safety is always our first priority.

- Our fire management program is committed to balancing the needs of our entrusted public resources with the needs of all Alaskans.

- Smoke during the 2004-2005 fire seasons hampered fire suppression, aviation and motor vehicle operations, as well as tourism and recreation. More smoke also contributes to increased health risks, specifically to the elderly and those with heart or respiratory problems.

- The primary goal of the AWFCG smoke education initiative is to inform the public about smoke from wildland fires, and associated management actions in the State of Alaska. The secondary goal is to provide Alaskans with access to information on where to seek more information or assistance, including measures that can be taken to minimize health risks.

- Prescribed fires are initiated only when a specific set of burning conditions are met and the risk of escape is low. Smoke impact is a major decision factor in the planning and approval process, and is mitigated to the best of our ability. In contrast, we have little or no ability to control smoke from a wildfire.

- Burn approval, in the form of a permit, from the Alaska Department of Environmental Conservation (ADEC) is required prior to the ignition of any prescribed fire. The primary purpose for ADEC permits is to minimize smoke conditions and mitigate its' impact.

- People can find out more about smoke impacts and how to cope with them online at http://www.dec.state.ak.us/air/smoke-ed.htm.

- Prescribed fire is an integral part of implementing the National Fire Plan. Prescribed fires are used to help restore and maintain ecosystems and manage resources. Properly designed prescribed fires can help reduce the future impacts of wildfires on communities and the environment, including smoke.

- Smoke management is complicated. In Alaska, there are often many wildland fires burning at the same time. Weather effects and wildfire smoke originating from outside the state can also contribute to the problem.

Talking Points.

Early or Pre-Fire Season

Wildland fire is an essential element of the Alaskan environment that maintains healthy forests and a diverse mix of wildlife habitats. The number of fires, size, and intensity varies year-to-year and therefore so does the amount of smoke. Smoke from wildland fires is inevitable during the summer months. However, the amount of smoke affecting people varies day-to-day and the social and economic impacts on populated areas are short term. The exception was the extraordinary 2004 fire season when the prevailing winds and atmospheric conditions resulted in air quality ratings ranging from "Unhealthy for Sensitive People" to "Hazardous" levels in populated areas for 15 days between mid-June and late August. The resulting air quality issues increased public awareness and concern about management of wildland and prescribed fires.

Land managers are sensitive to smoke impacts on area residents, visitors, businesses and the Alaskan economy. Our fire program recognizes the health needs of all Alaskans and the ecological need for fire. While fire has always been a natural part of our ecosystem, it impacts our society in many ways including the quality of the air we breathe. It can also lead to health concerns. Factors such as weather influence the amount of smoke we have in Alaska every year. In some cases, smoke comes from Canada or Siberia. Regardless of the origin, the Alaska Wildland Fire Coordinating Group (AWFCG) is undertaking a smoke education information campaign to inform Alaskans about smoke, ways the public can minimize exposure, and where to seek additional information.

During Wildland Fires or Prescribe Fires

The State of Alaska Department of Environmental Conservation and other entities have the ability to monitor air particulate levels. Particulates are solid particles produced by things like vehicle emissions, agricultural activities, and fires. Additional smoke and weather monitoring modules can be set up and activated when smoke is likely to affect populated areas. A smoke monitoring module records levels every hour and then computes a 24-hour average which correlates to the National Ambient Air Quality Standards (NAAQS) established by the Environmental Protection Agency (EPA). During extreme smoke conditions, technicians can retrieve data from the module daily.

Some characteristics of smoke accumulation are predictable. Up-slope breezes during the day often carry smoke to higher elevations. At night, these winds change direction and bring smoke down-slope to the lower elevations.

Other characteristics of smoke accumulation are less predictable since they are dependent on atmospheric conditions. With unstable atmospheric conditions, smoke from wildland fires is lofted up to very high elevations where it disperses. When atmospheric

conditions are stable, perhaps with an inversion layer, smoke can be trapped at lower elevations.

The Alaska Department of Environmental Conservation, state and federal fire management organizations, incident commanders, and Alaska Department of Emergency Services work together to inform and protect those affected by smoke.

For prescribed fires preseason and during incident:

Since the ignition of prescribed fire is based on a burn plan and prescription, the public can be notified prior to the smoke event about what to expect.

During prescribed burns, fire managers utilize smoke management techniques in order to comply with Alaska Department of Environmental Conservation (DEC) approval requirements which include air quality assessments.

Although there may be a short term smoke impact, burning has long term benefits to the ecosystem and Alaska communities.

The Alaska Department of Environmental Conservation will issue smoke health advisories on their website.

For more information on smoke; log on to the Alaska Department of Environmental Conservation website at http://www.dec.state.ak.us/air/smoke-ed.htm.

The *Air Quality Index* (AQI) is one tool that helps the Department of Environmental Conservation quantify daily air quality conditions. Established by the Environmental Protection Agency and adopted by the States, the Air Quality Index (AQI) is a tool for reporting daily air quality conditions. Using numeric information from sensors like particulate monitors, the AQI tells us how clean or polluted air is, and what associated health concerns we should be aware of. The AQI focuses on health effects that can happen within a few hours or days after breathing polluted air. Think of the AQI as a yardstick that runs from 0 to 500. The higher the AQI value—the greater the level of air pollution—and the greater the health danger.

The Index identifies six conditions:

- Good (0 to 50)
- Moderate (51 to 100)
- Unhealthy for sensitive groups (101 to 150)
- Unhealthy (151 to 200)
- Very unhealthy (201 to 300)
- Hazardous (over 300).

For Atmospheric Conditions Exceeding "Good" Air Quality

Reference the foregoing talking points and:

There are ways for the people to reduce their exposure to smoke. Smoke concentrations can be avoided by planning activities away from areas of dense smoke. Close windows, doors, and outside vents when it is smoky to prevent accumulation indoors. Run your air conditioner, if you have one. Keep the fresh air intake closed and keep the filter clean. Ventilate your home and work place during periods of little smoke. Avoid physical activities stay indoors while smoke is dense.

In order for a face mask to provide protection from smoke, it must be able to filter very small particles (around 0.3 to 0.1 microns) and it must fit, providing an airtight seal around the wearer's face. Paper "comfort" or "dust" masks commonly found at hardware stores are designed to trap large particles, such as sawdust, and will not protect your lungs from smoke.

Some masks that look like paper masks do filter out most smoke particulates. These are technically called respirators and the are capable of filtering out 95% of the particulates that is 0.3 microns and larger (smoke particulate averages about 0.3 microns). These masks, which may include an exhale valve, do not require cartridge filters. They are marked with one of the following: "R95", "N95", or "P95." Soft masks with higher ratings (R, N or P 99 and R, N, or P 100) are also available and will filter out even more particulate. (From Alaska Health and Social Services *Fire and Smoke Health Concerns: Frequently Asked Questions* at http://www.epi.hss.state.ak.us/wildfire/default.htm).

A healthy immune system is the best protection against the effects of smoke. Immune function is enhanced with regular moderate physical activity, good nutrition, hydration, and adequate rest. (From USDA Forest Service publication *Health Hazards of Smoke: Spring 2001*)

People with heart or lung disease, such as congestive heart disease, chronic obstructive pulmonary disease, emphysema or asthma should be aware of potential health risks. Children and the elderly are also more susceptible to smoke. These people are advised to use caution and avoid physical activity while heavy smoke is present. The risks of occasional exposure to fine particulate and other components of vegetative smoke are minimal for healthy individuals.

For Atmospheric Conditions Exceeding "Moderate" Air Quality

Reference all of the foregoing talking points and hold an open house/meeting to respond to community, public, and employee needs.

Public Service Announcement.

The Broadcast Public Service Announcement (PSA) is a DVD that will be distributed to key television and radio stations in Alaska (See Attached MPEG version).

PSAs are non-paid messages from government agencies or organizations. They are not a paid advertisement, and therefore are not guaranteed to be published.

Historically, radio and television stations provide a small percentage of their airtime to public service announcements. The AWFCG Smoke Information DVD will suit that purpose.

The DVD will contain a short (30-second) video and audio spot about smoke in Alaska including measures that can be taken to minimize exposure.

A letter from the AWFCG will accompany each DVD explaining its purpose and the request that the PSA be aired when possible. WFPEAC may also pitch the PSA to the major markets as time permits.

Poster.


Smoke in Alaska
Wildland fire smoke may impact activities from outdoor recreation to tourism. It can also become a health risk.
What's with the smoke?
Where does the smoke come from?
The smoke we see in Alaska can come from nearby fires, or from fires as far away as Canada or Siberia.
Can wildland fire smoke be controlled?
Controlling smoke from wildland fires is not easy. At times, it is impossible. First, the fire may not even be in the United States. Second, there are not enough resources to fight every fire. Third, Mother Nature is a big factor as weather is a major impact on smoke.
For More Information Visit:
www.dec.state.ak.us/air/smoke-ed.htm
Courtesy of the
Alaska Wildland Fire Coordinating Group

Flyer.

Smoke in Alaska

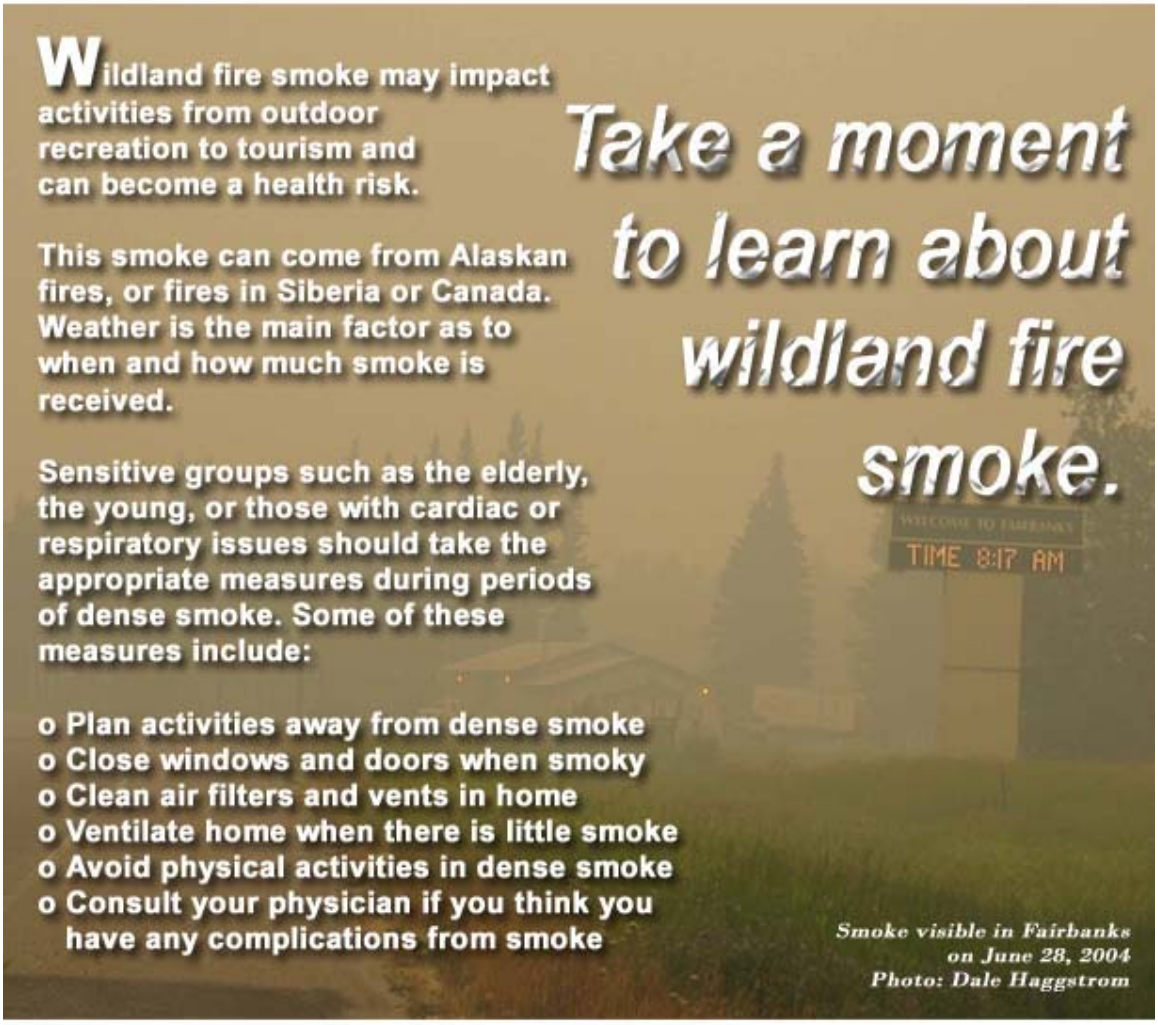
Wildland fire smoke may impact activities from outdoor recreation to tourism and can become a health risk.

This smoke can come from Alaskan fires, or fires in Siberia or Canada. Weather is the main factor as to when and how much smoke is received.

Sensitive groups such as the elderly, the young, or those with cardiac or respiratory issues should take the appropriate measures during periods of dense smoke. Some of these measures include:

- o Plan activities away from dense smoke
- o Close windows and doors when smoky
- o Clean air filters and vents in home
- o Ventilate home when there is little smoke
- o Avoid physical activities in dense smoke
- o Consult your physician if you think you have any complications from smoke

Take a moment to learn about wildland fire smoke.



Smoke visible in Fairbanks on June 28, 2004
Photo: Dale Haggstrom

For More Information Visit:

www.dec.state.ak.us/air/smoke-ed.htm

Courtesy of the Alaska Wildland Fire Coordinating Group

Web Site Plan.

Purpose. This appendix outlines the items to be established on the host web site in order to disseminate information about smoke and its impact.

Host. The Alaska Department of Environmental Conservation, Division of Air Quality, will serve as the host for the AWFCG's Smoke Education Communication Strategy.

Web Page Address. The URL (web site address) where the smoke information will be posted is:

http://www.dec.state.ak.us/air/smoke-ed.htm

Links. Where applicable, all AWFCG member web sites will link to the host's web. Information such as news releases and other outreach products should be highlighted on all AWFCG web sites, and not merely linked to the host. This will give greater visibility to the overall effort.

Information to be Posted. The following information will be posted on the host's web site (note: the plan will not be posted as it is for internal use only):

- News Release.
- Public Service Announcements.
- Poster.
- Flyer.

02/26/07

One of two Smoke Information Display Vertical Blind Panels.