May 1998

FACT SHEET
The Environmental Protection Agency's (EPA's) Interim Air Quality Policy on Wildland and Prescribed Fires

TODAY'S ACTION...

- The U.S. Environmental Protection Agency (EPA) is today issuing a national policy that addresses how best to achieve national clean air goals, including EPA's national air quality standards for particulate matter, while improving the quality of wildland ecosystems (including forests and grasslands) through the increased use of fire.

- EPA worked in partnership with land management agencies in the U.S. Departments of Agriculture, Defense, and the Interior, State Foresters, State and Tribal air regulators, the Bureau of Indian Affairs and others to develop the Interim Air Quality Policy on Wildland and Prescribed Fires.

- EPA's Policy provides incentives to States and Tribes to adopt and implement programs to minimize the public health and environmental impacts of smoke from fires that are managed to benefit resources or the environment, while providing the flexibility to tailor these programs to meet unique State and Tribal needs.

- EPA is issuing today's action as an "interim" policy to provide immediate guidance to State and Tribal air quality and land managers on how best to manage fires on wildlands and meet air quality goals. EPA plans to revisit the Interim Air Quality Policy on Wildland and Prescribed Fires after finalizing issues related to agricultural burning and regional haze. EPA is currently working on a special U.S. Department of Agriculture taskforce to determine how best to treat air quality impacts from agricultural burning. EPA will work with the taskforce to refine the distinction between wildland fires, which are covered by this policy, and agricultural burning. In addition, EPA has not yet issued the final rules for implementing the Regional Haze Program. Therefore, EPA plans to reexamine this policy regarding the impact of wildland and prescribed fires on visibility and regional haze, once the Regional Haze program is finalized.

BACKGROUND: CHARTING A NEW COURSE FOR MANAGING FIRE

- In recognition of the serious problems caused by past management practices, including years of fire suppression activities, the Departments of Agriculture and the Interior jointly released the results of a *Federal Wildland Fire Management Policy and Program Review* in 1995. This report formally recognized the critical role fire plays in the maintenance of healthy wildland ecosystems and endorsed a significant increase in the use of planned or managed fire, called "prescribed" fire, as a normal land and resource management tool. Future plans to manage fire on wildlands must incorporate public health and environmental considerations, including air quality. Other federal agencies and stakeholders, including EPA, participated in preparing the *Federal Wildland Fire Management Policy and Program Review* and endorsed its recommendations.

THE ROLE OF FIRE IN NATURE

- Fire has always been an integral part of many healthy ecosystems. Fire allows the release of important nutrients from flammable "fuels" or debris (logs, fallen branches, etc.) on the forest floor into the soil. By naturally reducing the amount of undergrowth and debris, fire allows trees to grow taller and healthier, with less susceptibility to disease and insect infestation. In addition, prescribed fires can be managed or controlled to help reduce the intensity and magnitude of bigger wildfires by reducing the accumulation of flammable fuels in the forests.

- Despite its benefits to ecosystems, for many years fire was aggressively suppressed in our nation's wildlands to protect public safety and property, and to prevent what was thought to be the destruction of our natural and cultural resources. The damaging effects of fire exclusion were difficult to recognize and mounted gradually and inconspicuously over decades.

- Fire exclusion practices have resulted in certain forests and grasslands plagued with a variety of problems, including overcrowding, resulting from the encroachment of species normally suppressed by fire; vulnerability of trees to insects and disease; and inadequate reproduction of certain species. In addition, heavy accumulation of fuel (such as dead vegetation on forests floors) can cause catastrophic wildfires, which threaten public safety, impair forest and ecosystem health, and degrade air quality.

- The lack of fire has also had unintended ecological effects, leading to the loss of habitat for rare species and the decline of ecosystems. Fire exclusion can lead to an alteration in natural community types and an important loss of biodiversity. Many plant and animal species are on the decline because they exist in fire-dependent habitats that have not burned in decades.

THE RELATIONSHIP BETWEEN FIRE AND AIR QUALITY

- How fire affects the quality of our air depends on many factors, including weather conditions, such as wind speed and direction; atmospheric stability; humidity; the scope and severity of the fire; and the type and quantity of fuels burned. Smoke contains a number of pollutants. Particulate matter in smoke is the main pollutant of concern because it can cause serious health problems, especially for people with respiratory illness. These health effects include increased respiratory symptoms and disease, decreased lung function, and even premature death. Smoke also adversely affects the clarity of our air, which in turn, affects the distance and sharpness with which we see objects. This is of particular concern in national parks, forests, and wilderness areas, where visibility impairment can block or "haze" our views and appreciation of scenic vistas.

- Unplanned or unwanted fires, such as catastrophic wildfires, can pose serious threats to public health and safety, as well as to air quality. Because these fires are uncontrolled, they can pose significant threats to the safety of firefighters and the general public and destroy property. The intense or extended periods of smoke associated with uncontrolled fires can also cause serious health problems and decrease visibility.

- Planned or prescribed fires, on the other hand, are used to minimize the emissions and adverse impacts of smoke on public health and the environment. Many techniques are used to manage the impacts from smoke, including scheduling burning during favorable weather conditions and controlling the amount of fuel and acreage burned. Some states already have programs in place to manage smoke from prescribed fire activities.

PROTECTING PUBLIC HEALTH & AIR QUALITY: EPA'S AIR QUALITY STANDARDS & PROGRAM FOR REGIONAL HAZE

- The Clean Air Act requires EPA to review (and revise, if necessary) national air quality standards at least once every five years to provide strong public health and environmental protection. After extensive scientific and public review, on July 18, 1997, EPA issued new national ambient air quality standards (NAAQS) for ground-level ozone and "fine" particulate matter (particles smaller than 2.5 micrometers in diameter, or $PM_{2.5}$). EPA is also retaining its current NAAQS for particulate matter (particles smaller than 10 micrometers in diameter, or PM_{10}), however a more stable form of the standard was adopted. Ten micrometers are about one-seventh the diameter of a human hair.

- EPA's updated standards represent a major step forward in public health protection. The new standards will protect 125 million Americans, including 35 million children, from the health hazards of air pollution. Each year, the updated ozone and particulate matter standards will prevent approximately 15,000 premature deaths, 350,000 cases of aggravated asthma, and 1

million cases of significantly decreased lung function in children.

- In conjunction with the new national air quality standards for ozone and particulate matter, EPA also proposed for public comment a new Regional Haze Program to improve visual air quality across broad regions of the nation, including 150 important natural areas, such as national parks and wilderness areas given special protection under the Clean Air Act. Pollutants that cause haze, primarily fine particles, can be transported long distances. Thus, haze occurs regionally throughout the U.S. The EPA believes that the most effective way to address visibility impairment is to establish a regional haze program in combination with the new standard for fine particulate matter.

- Under the auspices of the Federal Advisory Committee Act (FACA), EPA formed a subcommittee comprised of a wide range of stakeholders, including other Federal agencies, State and local governments, industry representatives, environmental groups, and others, to develop a common-sense strategy for implementing the new ozone and particulate matter air quality standards and the Regional Haze Program. These three issues are being examined together because of the likelihood that implementation strategies for the various programs could focus on the same or similar sources of air pollution. EPA has developed an implementation package designed to give States, Tribes, local governments, and business the flexibility they will need to meet protective health standards and requirements under the Regional Haze Program in a reasonable, cost-effective way.

WORKING IN PARTNERSHIP TO DEVELOP A NATIONAL POLICY ON WILDLAND AND PRESCRIBED FIRE

- In developing an implementation strategy for the new ozone and particulate matter air quality standards and the new Regional Haze Program, EPA and the FACA subcommittee considered a variety of issues, including how best to manage wildland and prescribed fire impacts (e.g., smoke) on air quality and visibility. To best address this issue, EPA worked in partnership with Federal Land Managers, including the Departments of Agriculture, Defense, and the Interior, State and Tribal air and land management agencies, and others, through a special FACA subcommittee workgroup, to develop a national air quality policy on wildland and prescribed fire. The policy workgroup examined how best to allow the increased use of fire in wildland ecosystems in the context of implementing new air quality standards for ozone and particulate matter, the new Regional Haze Program, and other Clean Air Act requirements.

WHAT ARE THE MAIN COMPONENTS OF THE POLICY?

- Fires that occur in the wildlands (generally undeveloped areas such as forests, grasslands, etc.) fall into two categories, (1) planned or prescribed fires which are purposely started to meet specific land management objectives, and (2) wildland fires which are all other non-structural

fires in the wildlands, including unwanted wildfires. EPA's interim policy

applies to both wildland and prescribed fires that are managed to benefit resources or the environment.

- Air quality managers are encouraged to participate in public land use planning activities which involve selecting the most appropriate and beneficial methods for managing public lands, including the use of fire. Other land management methods or "treatments" include "mechanical" treatments (e.g., on-site chipping or crushing of logging waste) and "chemical" treatments (e.g., herbicides). Air quality managers are urged to evaluate the potential public health and environmental impacts of fire and other land management treatments to ensure that air quality and visibility concerns are adequately addressed.

- Wildland owners and managers are encouraged to notify air quality managers of plans to significantly increase their use of fire on wildlands; consider the air quality and visibility impacts from smoke and take appropriate steps to minimize the impacts; consider alternative treatments to fire, including mechanical and chemical treatments; and participate in planning and implementing State and Tribal smoke management programs.

- Smoke management programs provide a basic framework of procedures and requirements for managing smoke from prescribed fires. Some states already have smoke management programs in place. The programs are usually developed by States and Tribes in cooperation with land owners and managers. EPA's Policy describes the elements of a basic smoke management program, including (1) a process for granting approval to conduct prescribed burns; (2) methods for minimizing air pollutant emissions by considering alternative treatments and/or reducing fuel levels before burning; (3) outlining smoke management considerations for each burn, such as burning only during favorable weather conditions to minimize smoke intrusions; (4) plans to notify the public and reduce exposure should smoke intrusions occur; (5) public education and awareness programs; (6) surveillance and enforcement procedures for ensuring that smoke management programs are effective; and (7) procedures for periodically evaluating smoke management programs.

- EPA's Policy provides incentives to States and Tribes to adopt and implement at least basic smoke management programs. While the Policy outlines the broad components that should be included in a smoke management program, it gives States and Tribes the flexibility to tailor these programs to meet their unique needs. The Policy does not limit the ability of States or Tribes to regulate the use of fire. If a current smoke management program is adequate to prevent fires from causing violations of the NAAQS, it does not have to be changed. Also, EPA's Policy does not imply that a state's current program should be relaxed if it has more components or if it is more stringent than the basic smoke management program outlined in this Policy.

- EPA will not designate an area as "nonattainment" (areas that do not meet EPA's national air quality standards) when prescribed or wildland fires managed for resource or environmental benefits cause or significantly contribute to violations of the particulate matter standards if a State or Tribe has certified that they have implemented a basic smoke management program. Instead, EPA will require States or Tribes to review and upgrade their smoke management programs if fires lead to a violation of the particulate matter standards (based on 3 calendar years of air quality monitoring data). If a second violation occurs the following year, States or Tribes must review their programs again and implement stronger measures. After a third violation, mandatory smoke management programs must be adopted into State or Tribal Implementation Plans (State or Tribal plans to meet Clean Air Act requirements).

- States or Tribes that have not implemented a basic smoke management program will be required to revise their implementation plans to include a mandatory smoke management program if prescribed burns lead to violations of the particulate matter standards. In such cases, EPA will move forward to redesignate the area in violation as nonattainment.

- After EPA's proposed regional haze rule is finalized, States will need to address the impacts of fires and other sources on meeting reasonable progress goals and requirements outlined in the rule. EPA will revisit the regional haze/visibility section of this policy when the regional haze rule is finalized.

- In addition, the Clean Air Act has special requirements for actions conducted by Federal agencies that may impact air quality. Federal agencies located in nonattainment areas must "conform" or comply with applicable State requirements to reduce or eliminate the severity and number of violations of national air quality standards. Under EPA's Policy, Federal prescribed fire projects would be considered to conform with the state implementation plan if they are managed under a certified basic smoke management program. The program must require regional coordination (cooperation of all jurisdictions in an airshed) when authorizing fires and real-time air quality monitoring at sensitive receptors, when warranted, in addition to the basic program components. The Policy outlines the components of a basic smoke management program.

- The Clean Air Act authorizes States with approved Prevention of Significant Deterioration (PSD) programs to exclude particulate matter emissions caused by "temporary" activities from consuming increment. EPA expects the States, on an individual basis, to decide the extent to which prescribed fires (and the resulting emissions increases) should be considered "temporary" sources of air pollution when determining increment consumption in specific areas. The goal of the PSD program is to prevent "clean" air quality (in areas that meet the national air quality standards) from deteriorating beyond certain amounts or increments.

FOR MORE INFORMATION...

- EPA's Interim Air Quality Policy on Wildland and Prescribed Fires, this fact sheet and other communications materials related to the Policy are available on EPA's Airlinks website at *http://www.epa.gov/airlinks*/ and on the Western States Resources Council (WESTAR) website at *http://westar.org/proj_frame.html*. The Interim Policy is also available for downloading from EPA's Office of Air and Radiation (OAR) Policy and Guidance website on EPA's Technology Transfer Network (TTN) at *http://www.epa.gov/ttn/oarpg/* For further information on how to access the bulletin board, call (919) 541-5384. For further information about the Policy, contact Mr. Ken Woodard (919-541-5697) or Mr. Gary Blais (919-541-3223) of EPA's Office of Air Quality Planning and Standards.

- A wide range of information on wildland fire and air quality issues is available on the Internet at the following websites:

Environmental Protection Agency's Office of Air & Radiation homepages:

http://www.epa.gov/airlinks/

-for more information on EPA's ozone and particulate matter national ambient air quality standards and the Regional Haze Program

http://www.epa.gov/oar/oarhome.html

-for more information on a variety of air quality issues and EPA programs

http://ttnwww.rtpnc.epa.gov/html/ozpmrh/facahome.htm

-for further information on the FACA process and implementation issues related to EPA's ozone and particulate matter air quality standards

Wildland Fire and Forest Health Issues

http://www.denendeh.com/flycolor/wildfire/
http://www.nofc.forestry.ca/fire/12:50pmindex.html
http://www.fire.ca.gov/index.html
http://www.fs.fed.us/database/feis/welcome.htm
http://www.csu.edu.au/firenet/firenet.html
http://www.firewise.org/
http://met.rfl.pswfs.gov/forecast.html
http://www.fsu.edu/%7Elbrennan/
http://www.neotecinc.com/wildfire/
http://www.fs.fed.us/land/wfas/welcome.htm
http://fire.r9.fws.gov
http://www.fs.fed.us/r3/fire
http://www.nps.gov/fire/
http://flame.fl-dof.com/
http://www.nwcg.gov