

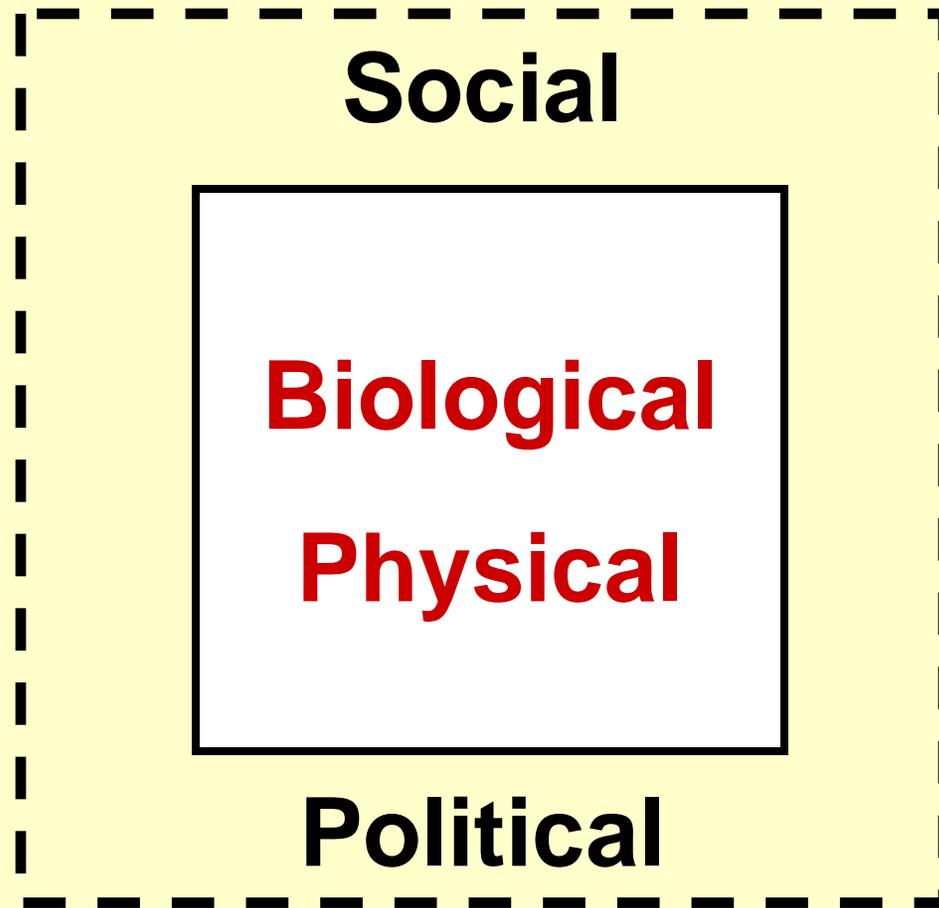
Public Relations: Communicating About Smoke



Objectives

- Identify public relations opportunities for smoke management.
- Develop public contact contingency plans and coordinate with the media.
- Discuss the importance of being knowledgeable and proactive about smoke management issues to establish credibility with the public and cooperators.

Ecosystem Management



It's an Opportunity

A photograph showing three firefighters in yellow shirts and red helmets walking through a field of tall, dry grass. A large fire is burning in the background, creating a bright orange and yellow glow. The firefighters are carrying equipment, and one is holding a hose. The scene is set against a dark, hazy sky.

The public is more likely to support a fire program when they understand the benefits for them and their community.

Understanding and Caring

Agency Objectives

- Reduce fuels and the risk of catastrophic fire
- Reestablish or maintain biodiversity and healthy ecosystems

Why Should Public Care?

- Protect local communities
- Preserve recreational opportunities
- Maintain a vista
- Save a certain species



Communicating about Smoke

- Integrate smoke messages with other information
- Establish realistic expectations
- Help reduce impacts
- Develop tolerance
- Develop credibility / trust

Planning is Everything!!!

Year-round	Early Fire Season	Announcing a Planned Smoke Event	Responding to an Unplanned Smoke Event	During Long Duration Smoke Event	End of Season or After a Smoke Event
1. Wildland fire smoke fits into a larger regional air quality situation.	4. Park managers are sensitive to smoke impacts for visitors and employees.	9. During prescribed burns, fire managers utilize smoke management techniques.	15. Small natural fires have the potential to become large fires.	Hold an open house or a public meeting	Sequoia & Kings Canyon National Parks appreciate the patience of visitors, residents, and gateway communities during the incident and its associated smoke event.

A - Smoke Communication Strategy

The purpose of this communication strategy is to provide factual talking points about smoke that can be used during prescribed fires, fire use projects, suppression actions, and fires occurring outside the park. These points will be incorporated into various communication methods employed by the parks in reference to fire and fuels management (i.e. press releases, public meetings, interpretive programs, etc.). For more information on communication methods, please refer to the Public Information and Education section of Chapter 3 in this document and also the *Standard Operating Procedure for Fire and Fuels Information*.

The key to a successful strategy is targeting the right people (audiences) in the right ways (methods) with the right messages (talking points). During a fire incident, there are specific smoke messages that can be integrated into the general fire information effort.

AUDIENCES

Superintendent and Division Chiefs
 All employees and their families (including NPS, SNHA, USGS, concessions, and volunteers)
 Park visitors (including in-park visitors, internet visitors, and special groups)
 In-park communities – Wilsonia, Silver City, Mineral King cabins, Oriole Lake
 Neighboring communities – Three Rivers, Badger
 San Joaquin Unified Air Pollution Control District

METHODS

During a Fire Incident

Clearly outline the authority given to park supervisors to minimize smoke impacts to their employees. Employees can notify supervisors if they are having adverse impacts from smoke. Alternative work schedules and locations will be arranged where appropriate.
 Hold Open House/Town Meeting for employees and residents in smoke affected areas.
 Operate particulate monitors in affected areas. Be prepared to move or add monitors. Start monitoring early in the incident.
 Provide daily air quality information, which interprets the particulate monitor data.
 Set up a smoke hotline (phone) to handle smoke complaints.
 Leave flyers on employee doorsteps with tips to decrease exposure.
 Post on bulletin boards.
 Disperse information by email, voice-mail, and fax
 Use the park webpage as a vehicle for dispersing daily air quality information.
 Give air quality conditions during the daily weather report on park radio.

Year-round Actions

Handling Complaints

- Document complaints
- Distinguish between requests for information and actual complaints
- Pass information to necessary people

Implementing Contingencies

- Issuing health advisories
 - Staffing “hotlines”
 - Explain monitoring equipment
- Relocating smoke-sensitive people
- Changing project tactics
 - Terminating, Accelerating, Delaying



Key Contacts for Your Project**

- Air regulatory agencies
- Internal employees
- Sensitive downwind receptors
 - Individuals, businesses, facilities, parks, recreation areas, day care centers, nursing homes
- Media outlets
- Public safety and transportation agencies
- Health agencies

Communication Methods **

Pre- & Post-Project mailings

Open houses / public meetings

News releases

Call smoke sensitive people

Outreach to media

Email updates

Interpretive tours or roving

Create / Update a website

Social Media

Create a trail guide for a burned area

Information at road closures

Publications

Bulletin boards where smoke is visible

Booths at special events

Success Stories

Visitor Center exhibits

Classroom activities

News Releases



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U.S. Department of the Interior

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Sequoia & Kings Canyon National Parks Fire Update

For Immediate Release – October 9, 2007
Deb Schweizer 559-565-3703

Valley View Prescribed Fire Planned Near Grant Grove

Fire crews plan to begin ignitions on the *Valley View Prescribed Fire* near Grant Grove in Kings Canyon National Park on October 10, weather and air quality conditions permitting.

The 226 acre unit is located north east of Grant Grove Village and composed of mixed conifer and brush. Ignitions will last approximately three days and will include a combination of hand held drip torches to “blackline” the perimeter and aerial ignitions by helicopter for the interior of the unit.

Fire managers will be re-introducing fire in this area after years of fire exclusion due to suppression policies. A 155 acre unit of this project was completed last year.

The goals of the prescribed fire are twofold:

- Reduce the risk of wildland fire in the Grant Grove area by reducing the amount of dead vegetation that has accumulated over the years and can lead to an unwanted and potentially destructive fire.
- Restore the role of naturally cycling fire into the area. Fire allows forest to be thinned, opening the canopy and allowing sunlight through. It recycles nutrients to the soil while reducing the amount of dead, woody debris. This aids the sprouting and re-growth of plants, shrubs, and trees. Prescribed fire also helps to create a mosaic of diverse habitats for plants and animals.

Throughout the project, fire managers will work closely with the San Joaquin Valley Air Pollution Control District to manage smoke production and reduce local impacts.

Trail and road closures within the unit will be in effect to ensure visitor and firefighter safety. These include:

- The Panoramic Point Road will be subject to temporary daytime closures and closed at night.
- The Park Ridge Lookout Road will be opened to necessary administrative traffic only. Please coordinate access with fire managers.
- The Marzanita Trail, the Crystal Springs Trail, and the Round Meadow Trail

Park residents and visitors in the area who are sensitive to smoke or have pre-existing respiratory problems should limit their outdoor activities and keep windows closed during the burn. Drink water, eat a balanced diet, and get adequate rest. If you have heart or lung disease, asthma or emphysema, be diligent about following your physician's instructions. For more information about how to limit exposure to smoke, please visit <http://www.airquality.org/smokeimpact/>.

-NPS-

EXPERIENCE YOUR AMERICA

The National Park Service cares for special places saved by the American people so that all may experience our heritage.

Interpretive Tours or Roving

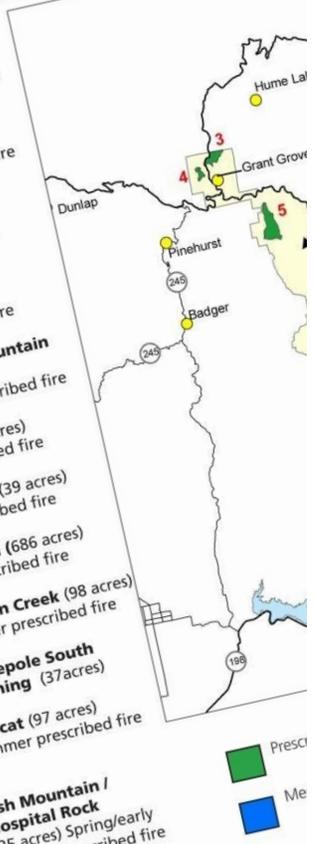


Project Locations for 2010

The parks are planning 13 projects this year totaling up to 3877 acres. They are designed to improve protection of communities and restore or maintain forest health. Remember, the ultimate timing and completion of burns depends on air quality, local and national fire activity, fuel moistures, and weather.

- 1 **Hole-in-the-Wall** (52 acres)
Summer prescribed fire
- 2 **Viewpoint** (71 acres)
Summer prescribed fire
- 3 **North Boundary** (242 acres)
Fall prescribed fire
- 4 **Swale East** (101 acres)
Fall prescribed fire
- 5 **Redwood Mountain** (634 acres)
Summer prescribed fire
- 6 **Cave** (310 acres)
Fall prescribed fire
- 7 **Wuksachi** (39 acres)
Fall prescribed fire
- 8 **Halstead** (686 acres)
Fall prescribed fire
- 9 **Silliman Creek** (98 acres)
Summer prescribed fire
- 10 **Lodgepole South Thinning** (37 acres)
- 11 **Bobcat** (97 acres)
Summer prescribed fire
- 12 **Ash Mountain / Hospital Rock** (25 acres) Spring/early summer prescribed fire
- 13 **Mosquito** (1485 acres)
Fall prescribed fire

* Mechanical projects will be completed if funding is available.



U.S. Department of the Interior
National Park Service
Sequoia & Kings Canyon National Parks

Preparing for Fire Season

Spring is in the air; birds are singing, flowers are blooming, and fire managers are planning for the upcoming fire season. Among the efforts underway:

Predicting fire season: The start of fire season and the level of risk it brings depend on several factors: the timing and the amount of precipitation, whether it is rain or snow, when snowpack melts, unusually early warm temperatures and others. The southern Sierra Nevada has seen slightly below normal levels of precipitation while temperatures have been slightly above average. For the foothills, this could lead to earlier fire risk. Good snow pack means that a normal fire season is likely for the higher elevations. Remember, a normal year in the southern Sierra means hot, dry summers; the risk of fire is always a reality here.

These long-term predictions are informed estimates based on historic weather and fire patterns. As fire season approaches, better assessments can be made based on direct weather readings. Daily weather observations are used to determine the fire danger ratings (extreme to low fire danger) that are posted throughout the parks.

Seasonal hiring and training: Fire managers have hired their seasonal staffs for the engines, helicopter, and fire crews. While some are returning from last year, others may be coming from other national parks or agencies; and some are working their first fire season. Firefighters go through training to develop their ability to work together, communicate together, and practice standard interagency firefighting procedures.



Arrowhead Hotshots Roberto Garcia and Oscar Luna practice fire shelter deployments. This prepares a firefighter for a worst-case scenario - needing to deploy a fire shelter (practice shelters are in their hands) if they can't reach a safe location and become trapped by an oncoming fire. NPS Photo by John Goss



Firefighter Mike Elias with Engine 72 stationed at the Three Rivers Hammond Station completing an equipment check. NPS Photo by Deb Schweitzer

Fire managers annually evaluate dispatch centers, test radio systems, and all fire response equipment. Each crew is evaluated through a readiness review that demonstrates they meet the standards for federal wildland fire response. This review is conducted by a qualified independent expert. He or she submits a report to the park superintendent detailing the results of these readiness reviews for each crew as well as for overall fire operations. These reviews are typically conducted in early June. This provides time for crews to train and work together and prove their competency in time for the upcoming fire season.

Response plans: The parks work with the county, state, and other federal fire agencies to ensure the best response during fire season. For example, in certain locations, the Sequoia National Forest can provide the quickest response to a fire on park land. In other locations, the parks may be the closest responder for the forest.

These plans are designed to recognize that response to any given area will differ depending on the fire hazard and risks. A lightning fire in the wilderness may only require monitoring. A front-country fire will bring a higher level of response.

The plans evolve with the fire season. For example, a fire in May during low fire danger will have a different response than that same fire in August during high fire danger. Fire managers will, of course, make discretionary calls based upon their experience. However, the plans provide initial guidance to dispatch responders to a fire start.

Please refer to pages three and four of this brochure for tips on how you can plan for fire season.

Sequoia and Kings Canyon National Parks • Pre-Season Fire & Fuels Information 2009

4 Pre-Season Fire & Fuels Information

Mailings

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Standard Mail G-83
U.S. Postage and Fees Paid
U.S. Department of the Interior

Postal Customer



Reducing Your Exposure to Smoke



In the foothill communities here in the southern Sierra Nevada, smoke is our reality. Whether it is present from a wildfire or a planned prescribed burn, here are a few simple actions that you can take to reduce your exposure:

Stop outdoor activity when smoke is present. Avoid physical exertion. Stay indoors as much as possible, especially seniors and children.

Close windows, doors, and outside vents when it is smoky. Set your air conditioner to re-circulate. Ventilate your home and work place when it is not smoky.

Drink lots of water, eat a balanced diet, and get adequate rest. A healthy immune system is the best protection against the effects of smoke.

Be diligent about taking any medicines prescribed by your doctor. People with pre-existing respiratory problems like heart or lung disease, asthma, or emphysema are at greater risk from smoke.

Don't bother wearing paper masks. These masks generally will not protect your lungs from wildland fire smoke, and they may make it harder for you to breathe.

Consult the local Air Quality Index (AQI) on TV or in newspapers for assistance in planning your daily activities. The higher the AQI value, the greater the level of air pollution and the greater the health danger.

Pay attention to your symptoms. Some people have undiagnosed respiratory problems that can be triggered by exposure to smoke. Adhere to the guidelines above. Consult your healthcare provider for further guidance.



Prescribed Fire in the Parks

FIRE FACTS

Yosemite National Park

National Park Service
U.S. Department of the Interior



PRESCRIBED FIRE IN

The Big Meadow Fire



The Big Meadow Fire was a prescribed fire ignited on August 26, 2009 near the town of Foresta. When the fire escaped control lines, firefighters aggressively worked to suppress the fire and were able to contain it along the Tioga Road near Tamarack Flat. Smoke from this fire may be seen throughout the fall.

Yosemite National Park and Foresta have been working to treat fuels through mechanical thinning projects and defensible space around homes in an effort to protect the community from fire. Firefighters were able to safely protect homes during the Big Meadow Fire because of this necessary work.



Wildland fire has been part of the Sierra Nevada for thousands of years and Yosemite's plant and animal species have adapted to it. Natural fire keeps dead vegetation from accumulating to fuel larger, more intense fires and prevents forests from being overgrown. The 1990 A Rock Fire burned through the community of Foresta, destroying many homes. The A Rock Fire burned so intensely, in part, because of years of suppressing fires.

Why Use Prescribed Fire?

Prescribed fires are planned months in advance. Burn day conditions must meet prescription parameters for temperature, wind, relative humidity, air quality and other factors. The National Park Service uses prescribed fire:

- to reduce hazardous fuels and protect lives and property in nearby communities;
- to achieve ecological goals, creating a mosaic of diverse habitats for plants and animals.



After the Big Meadow Fire...

Yosemite National Park is determined to understand why the Big Meadow Prescribed Fire escaped. An independent team comprised of fire professionals from various federal agencies is in the park to evaluate what led to the escape. The park is committed to using the review findings to ensure the continued excellence of the Yosemite fire management program.

www.nps.gov/yose/fire



Success Stories



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U.S. Department of the Interior

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Sequoia & Kings Canyon National Parks

Valley View Prescribed Fire Provides Community Protection

Fire managers from Sequoia & Kings Canyon National Parks completed a prescribed fire this fall that achieved multiple goals for the parks.

This 226 acre fire is one in a series of steps the parks undertook to reduce the risk of unwanted fire for the Grant Grove area. Visitor hotels and cabins, National Park Service and concession employee housing, and the private community of Wilsonia will all enjoy improved fire protection as a result of this prescribed fire.

This unit was a concern for fire managers for multiple reasons. This fire was a restoration burn. This means that fire was being introduced here after more than 100 years of fire exclusion. This created

an unnaturally dense amount of fuels that had accumulated over the years in the absence of the naturally-cycling fire regime of every 10-15 years.

Additionally, a tussock moth invasion in the late 1990s left a high number of standing dead trees— particularly white fir— that create d an increased fire hazard.

Fire managers saw excellent fire behavior with consumption of the dead and downed fuels on the forest floor as well as torching in some of the standing dead trees.

This project was an educational highlight for visitors in the area. Aerial ignitions in particular attracted crowds to watch the operations. The patience of visitors and residents while smoke was in the area contributed to the successful completion of this prescribed fire.



*Valley View Prescribed Fire at night.
NPS photo.*



*Excellent consumption of dead and downed fuels, was observed on the fire.
NPS photo.*

EXPERIENCE YOUR AMERICA

The National Park Service cares for special places saved by the American people so that all may experience our heritage.



Outreach to Media

- Make contact with media outlets before the burn
- Create opportunities for print, radio, and television during the project
- Be ready with other “sidebar” stories

Air Quality Index

Values and Cautionary Statements

PM2.5 24-hr Avg. Concentration (ug/m3)	PM2.5 1-hr Avg. Concentration (ug/m3)	Index Values	Visibility (Miles)	Level of Health Concern	Cautionary Statements
0.0 – 15.4	0.0 – 40.0	0-50	> 10	Good	None
15.5 – 40.4	40.1 – 80.0	51 – 100**	5.1 – 10.0	Moderate	None
40.5 – 65.4	80.1 – 175.0	101 - 150	3.1 – 5.0	Unhealthy for Sensitive Groups	People with respiratory or heart disease, the elderly, and children should limit prolonged exertion.
65.5 – 150.4	175.1 – 300.0	151 – 200	1.6 – 3.0	Unhealthy	People with respiratory or heart disease, the elderly and children should avoid prolonged exertion, everyone else should limit prolonged exertion.
150.5 – 250.4	300.1 – 500	201 – 300	1.0 – 1.5	Very Unhealthy	People with respiratory or heart disease, the elderly and children should avoid any outdoor activity, everyone else should avoid prolonged exertion.
250.5 +	500.0 +	301 - 500	< 1.0	Hazardous	Everyone should avoid any outdoor exertion; people with respiratory or heart disease, the elderly and children should remain indoors.



Web Resources

Inciweb: <http://www.inciweb.org/incident/2059/>

Fire News

Sequoia & Kings Canyon National Parks webpages

Home page alert:

<http://www.nps.gov/seki/index.htm>

Fire in the Parks, Current Fire Information

<http://www.nps.gov/seki/naturescience/current-fires.htm>

SequoiaKings Twitter acct:

<http://twitter.com/sequoiakingsnps>

SWFRS, webcams, smoke data:

<http://sierrafire.cr.usgs.gov/swfrs/>

MODIS: <http://rapidfire.sci.gsfc.nasa.gov/subsets/index.p>

[hp?subset=AERONET_Fresno](http://rapidfire.sci.gsfc.nasa.gov/subsets/index.p)

Air District webpages: www.airquality.org/smokeimpact/



Outreach to Air Districts

- Relationship with the Air District is on-going, not just before a fire
- Regular dialogue helps us understand their needs and them to understand ours.



Sierra National Forest, Sequoia National Forest & Sequoia & Kings Canyon National Parks



Wildland Fire: Our Reality

Prior to fire suppression policies (circa 1860)

- **15,000-20,000** acres/year historically burned in the parks based upon tree rings(dendrochronology)studies conducted by fire ecologists and other researchers.
- **10,000** acres in 2008.
- Approximately **26,000** acres/year historically burned on the Sierra National Forest
- **11,000** acres in 2008.



Tree rings with fire scars from a giant sequoia tree demonstrate that fire occurred frequently in the Sierra Nevada



Sierra National Forest, Sequoia National Forest & Sequoia & Kings Canyon National Parks



In California

Before the 1800s, 1.1 million acres/year burned on average in forests. California skies were likely smoky from late summer to early fall (Stephens, et al).

1.5 million acres have burned in California this year. This is well within the historic norm.

Lightning strikes, flicked cigarettes, escaped campfires, car fires, etc. happen

We need to work together to manage smoke when we manage fire.



The Siskiyou Fire, July 9

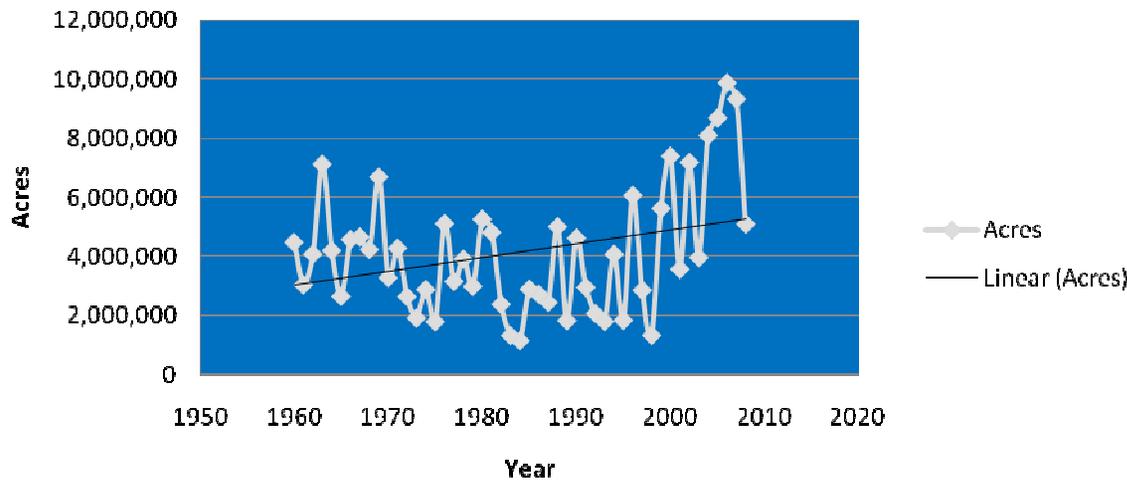


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Nationally Collected Statistics Show the Average Annual Fire Acreage is Increasing

National Trends in Annual Fire Acres



6 of the 10 largest acreage fire seasons have happened in the last decade. The numbers show that this trend is not an anomaly.



Skyland Fire, Montana, 2007

Source: NIFC



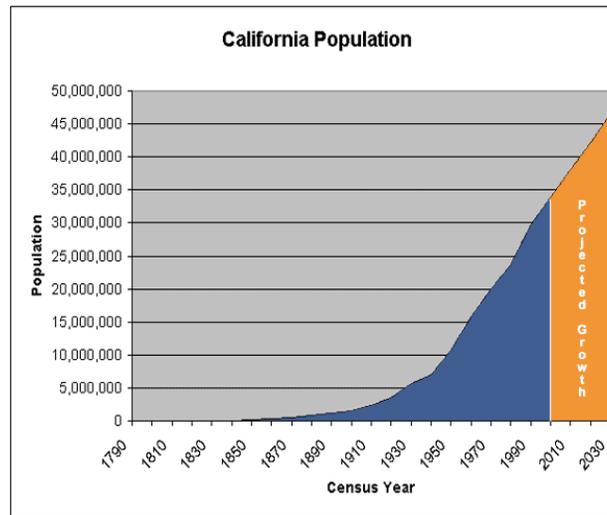
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But, wait! There's more...



Loss of Natural Fire Regime



Wildland-Urban Interface

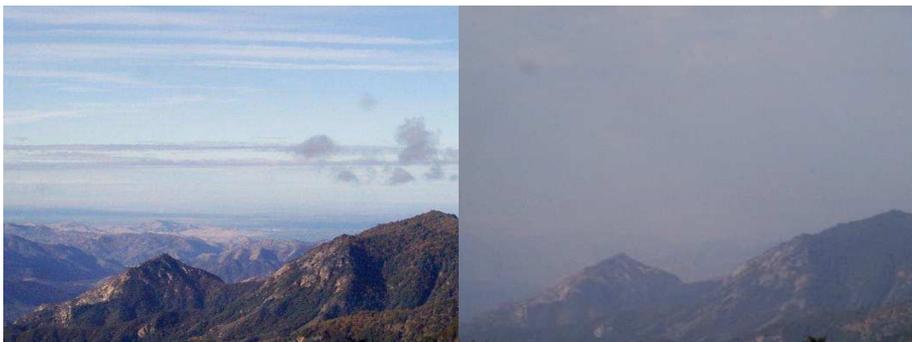


Invasive Species



Global Climate Change

Air Quality



The Sheep Fire 2010

- Started by lightning 07/16
- 9,020 acres, 3125 on park, 5,895 on forest (Sequoia).
- Treated key fuels problem in Cedar Grove, on forest
- Ideal year to complete this fire
- Multiple actions taken to slow, stop fire spread to west.
Reason: SMOKE!



Sheep Fire August 9



August 23

Telling the Story

- Campfire Programs
- Talking to Visitors along the road
- Roving the Campgrounds
- The Fire Place
- Working with Employees
 - Alternative work schedules



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Sequoia & Kings Canyon National Parks Fire Update Smoke Advisory for Cedar Grove

The *Sheep Fire* is located in Kings Canyon National Park in the southern cliffs above Cedar Grove, one-half mile north of Sentinel Ridge. It is highly visible throughout Cedar Grove. This lightning fire is being managed for forest health. There is currently no threat to life or property.

Visitors to the Cedar Grove area should anticipate smoke settling into the valley in the late evening and early morning hours. This is based upon inversion patterns that hold the smoke in the valley. As the day warms and the inversion breaks, smoke should lift out of the valley.

Significant smoke is settling into the valley between the hours of 2 am to 6 am. People with pre-existing conditions such as asthma, lung or heart conditions, or young children or the elderly are more sensitive to smoke and may want to avoid Cedar Grove during the nighttime and morning hours. Consult your physician for further guidance.

Visitors should take the following steps to reduce their exposure to smoke:

- Close windows, especially at night when air tends to settle.
- Avoid prolonged exertion in heavy smoke especially if you are sensitive to smoke impacts.
- The young and the elderly are more sensitive to smoke impacts and should make extra efforts to limit their exposure to smoke.
- Drink lots of water, eat a balanced diet, and get adequate rest. A healthy immune system is the best protection against the effects of smoke.

Air quality improves dramatically during the late morning and afternoons. Visitors should plan day visits and hikes in Cedar Grove to take advantage of the good air quality windows.

Summary



Develop communication plans that integrate smoke messages

Identify your audiences

Use diverse communication methods

Be ready to implement contingency plans

Questions?