

# Prescribed Fire on Wildland Under the Exceptional Events Rule

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# Prescribed Fire, Yosemite National Park





# Exceptional Events and Fire

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The Exceptional Events Rule defines fire-related terms at 40 CFR 50.1:

- Wildfires
  - The Exceptional Events Rule defines a **wildfire** as “any fire started by an unplanned ignition caused by lightning; volcanoes; other acts of nature; unauthorized activity; or accidental, human-caused actions, or a prescribed fire that has developed into a wildfire.”
  - Under the Exceptional Events Rule a wildfire that predominantly occurs on wildland is a **natural event**.
  - **Wildland** means an area in which human activity and development are essentially non-existent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered.
- Prescribed Fires on Wildland
  - The Exceptional Events Rule defines **prescribed fires** as “any fire intentionally ignited by management actions in accordance with applicable laws, policies, and regulations to meet specific land or resource management objectives.”
  - Under the Exceptional Events Rule prescribed fires are “human activities.”

# Exceptional Events Demonstrations

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An exceptional events demonstration must include the following elements:

1. A **narrative conceptual model** that describes the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance or violation at the affected monitor(s);
2. A demonstration that the event affected air quality in such a way that there exists a **clear causal relationship** between the specific event and the monitored exceedance or violation;
3. Analyses **comparing the claimed event-influenced concentration(s)** to concentrations at the same monitoring site at other times;
4. A demonstration that the event was both **not reasonably controllable** and **not reasonably preventable**;
5. A demonstration that the event was caused by **human activity that is unlikely to recur** at a particular location or was a **natural event**; and
6. Documentation that the submitting air agency followed the **public comment process**

# Mitigation Requirements

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- A state requesting to exclude air quality data due to exceptional events must take “appropriate and reasonable actions to protect public health from exceedances or violations of the national ambient air quality standards.”
- To address the mitigation requirements, a state must:
  - provide prompt public notification whenever air quality concentrations exceed or are expected to exceed an applicable ambient air quality standard;
  - provide for public education concerning actions that individuals may take to reduce exposures to unhealthy levels of air quality during and following an exceptional event; and
  - provide for the implementation of appropriate measures to protect public health from exceedances or violations of ambient air quality standards caused by exceptional events.

# Narrative Conceptual Model of the Event

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- An exceptional events demonstration must include a narrative conceptual model that:
  - Describes the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance or violation at the affected monitor.
  - Describes the regulatory significance of the proposed data exclusion.
- Additionally, for prescribed fire on wildland, the narrative conceptual model should include:
  - A brief description of the intended objective for the prescribed fire;
  - Whether the prescribed fire was conducted in compliance with either a state-certified smoke management program (SMP) or basic smoke management practices (BSMP); and
  - Whether the prescribed fire followed an established natural fire return interval or was conducted to conform with a fire return interval established in accordance with a multi-year land or resource management plan.

# Clear Causal Relationship

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- The Exceptional Events Rule requires that demonstrations address the technical element that “the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation” which should be supported by analyses.
- The analyses must include, at a minimum:
  - A comparison of the event-related concentrations to historical concentrations;
  - Evidence that the event-related emissions were transported to the monitor; and
  - Evidence that the emissions affected the monitor(s).
- Some events may require additional analyses. Air agencies should work collaboratively with their EPA Regional office to determine the appropriate scope of a demonstration.

# Human Activity Unlikely to Recur

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- According to the Clean Air Act and the Exceptional Events Rule, an exceptional event must be “an event caused by human activity that is unlikely to recur at a particular location *or* a natural event.”
- Prescribed fires are not considered natural events, and therefore the focus is on the “human activity unlikely to recur at a particular location” criterion.
- Recurrence for prescribed fires is defined by either:
  - The natural fire return interval.
  - The prescribed fire frequency needed to establish, restore and/or maintain a sustainable and resilient wildland ecosystem contained in a multi-year land or resource management plan with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species through a program of prescribed fire..
- Evidence for recurrence can be demonstrated through a multi-year land or resource management plan, a review of scientific literature, or other sources as determined in collaboration with the appropriate EPA Regional office.



# Not Reasonably Controllable/Preventable

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## The Not Reasonably Controllable criteria can be satisfied if:

- The prescribed fire was conducted under an adopted and implemented certified SMP, or
- The prescribed fire was conducted with appropriate BSMP.

## The not reasonable preventable criteria can be satisfied by:

- Describing the benefits that would have been foregone if the fire were not conducted. The “foregone benefits” are those objectives in a multi-year plan that establish, restore and/or maintain a sustainable and resilient wildland ecosystem.

# Smoke Management Program Elements

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- EPA does not evaluate SMPs for completeness/adequacy as part of the exceptional events process.
- EPA generally recommends SMPs include the following elements:
  - *Authorization to Burn*
  - *Minimizing Air Pollutant Emissions*
  - *Smoke Management Components of Burn Plans*
  - *Public Education and Awareness*
  - *Surveillance and Enforcement*
  - *Program Evaluation*
- SMPs must be certified *prior to* and implemented *during* the fire.

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# Basic Smoke Management Practices

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- If an agency does not have a certified SMP or does not want to rely on one, they can instead show that the burn manager applied appropriate BSMP.
- Recommended BSMPs include:
  - *Evaluating Smoke Dispersion Conditions*
  - *Monitoring Effects on Air Quality*
  - *Record-Keeping/Maintain a Smoke/Burn Journal*
  - *Communication/Public Notification*
  - *Considering Emission Reduction Techniques*
  - *Sharing the Airshed and Coordinating on the Area Burning*
- For demonstrations relying on BSMP, there must be periodic collaboration between air agencies, FLMs, and other entities as appropriate, regarding protection of public health and management of air quality impacts during prescribed fires.



# Public Comment Process

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- Air agencies must “document [in their exceptional events demonstration] that the [air agency] followed the public comment process and that the comment period was open for a minimum of 30 days.”
- Further, air agencies must submit any received public comments to EPA and address in their submission those comments disputing or contradicting the factual evidence in the demonstration.

# Interagency Prescribed Fire Efforts

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- The EPA has been working with its federal, state, and local partners on issues related to fires, land management and public health.
- In November 2023, EPA, the United States Department of Agriculture, the Department of Interior, and the Centers for Disease Control signed a Memorandum of Understanding describing shared, fire-related goals and objectives.
- This MOU is designed to enhance coordination and communication while aligning air quality and land management goals for wildfire risk mitigation, including strategic increase in prescribed fires, and establish joint strategies for achieving those goals.
- Collaborate on case studies or “tabletop” exercises. Opportunity for partners to walk through the prescribed fire process.

# Prescribed Fire Tabletops

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- California – Federal Land Management
  - Social & Ecological Resilience Across the Landscape (SERAL) Project.
    - Long-term investment in the health and resiliency of the Stanislaus National Forest.
  - EPA collaboration is focused on public health messaging and social license with the goal of building public awareness around prescribed fire and actions to protect public health.
- Oregon – State Land Management
  - West Bend Project
    - The state of Oregon is behind on prescribed fire goals in this area. Prescribed fire is needed to reduce wildfire risk.
  - Tabletop revealed additional coordination is needed between state/local partners to resolve data gaps and dated regulatory schemes.
- Georgia – Private Land Management
  - The state of Georgia burns over 1 million acres per year, with a large contingency of private burners.
  - Prescribed burning conducted by private landowners requires robust planning for exceptional events requirements.

# Questions?

For area-specific questions, please reach out to your EPA Regional Office contacts to discuss

