



U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON **SCIENCE, SPACE, & TECHNOLOGY**

Ranking Member Zoe Lofgren (D-CA)

The National Wildland Fire Risk Reduction Program Act

Introduced on July 12, 2023 by Ranking Member Zoe Lofgren (D-CA) and Congresswoman Suzanne Bonamici (D-OR).

This legislation will establish the **National Wildland Fire Risk Reduction Program** with the purpose of achieving major measurable reductions in the losses of life and property from wildland fires through a coordinated federal effort to:

- Improve the understanding and prediction of the fire environment, wildland fires, associated smoke, and their impacts, including in the wildland-urban interface (WUI); on communities, buildings and other infrastructure; and social and economic impacts.
- Develop and encourage the adoption of science-based and cost-effective measures to prevent and mitigate wildland fire and associated smoke impacts.
- Improve the understanding and mitigation of the impacts of climate change and variability on wildland fire risk, frequency, and severity.

Under the Program, the Office of Science & Technology Policy (OSTP) would be tasked with establishing an **Interagency Coordinating Committee on Wildland Fire Risk Reduction**. This Committee would be co- chaired by the Director of the National Institute of Standards and Technology (NIST) and include over 10 relevant federal agencies as members. The Director would also be tasked with establishing an advisory committee to inform and assess the Program.

Responsibilities of program agencies would include:

National Institute of Standards and Technology (NIST):

- Carry out R&D on wildland fire impacts on buildings and communities, novel materials and methods to harden structures against wildland fire and reduce firebrand ignition of buildings, decontamination methods for firefighting gear, and other areas within the agency's expertise.
- Support development of model building codes and fire codes, standard test methods, construction and retrofit best practices, and other tools to mitigate the impacts of wildland fires.
- Conduct research to improve resilience in communities located at the wildland-urban interface, understanding the start of these fires, and preventing or reducing the ignition of structures located at the wildland-urban interface.
- Coordinate Federal post-wildland fire investigations of fires in the WUI.
- Carry out research related to standards and coordination for public safety communications systems during wildland fires.

National Science Foundation (NSF):

- Support fundamental science to advance understanding, mitigation, and response to wildland fires, including prediction of fire risks, development and improvement of tools and technologies that enable and accelerate the understanding of wildland fires, understanding of fire risk messaging to communities, and more.
- Support undergraduate and graduate research opportunities and graduate and postdoctoral fellowships and traineeships in relevant fields of study.
- Support other basic research in artificial intelligence and machine learning, as well as social, behavioral and economic sciences to improve our understanding of wildfires.

National Oceanic and Atmospheric Administration (NOAA):

- Conduct research, observations, modeling, forecasting, prediction, and historical analysis of wildland fires to improve understanding of wildland fires, and associated fire weather and smoke.
- Develop and provide accurate, timely, and effective warnings and forecasts of wildland fires, fire weather events, and associated smoke.
- Provide impact-based decision support services and seasonal climate predictions.
- Establish a Fire Weather Testbed to develop fire weather products and services.
- Support wildland fire and smoke research and development.

Federal Emergency Management Agency (FEMA):

- Support development of risk assessment tools, data collection, and public outreach and information dissemination related to wildland fires and associated risks.
- Promote the adoption of wildland fire preparedness and risk reduction measures in communities at risk from wildland fire.
- Work closely with building code organizations to promote better buildings and retrofit practices within the design and construction industry.
- Establish and operate a wildland fire preparedness and mitigation technical assistance center.
- Incorporate wildland fire data into existing agency hazards related data systems.
- Translate new information and research findings into best practices and conduct outreach to improve training of wildland firefighters.
- Lead the development of a national wildland fire hazard severity map.

National Aeronautics and Space Administration (NASA):

- Support relevant basic and applied scientific research and modeling activities, ensure use of all relevant Earth observations data, and explore and apply novel tools and technologies.
- Support the translation of research to operations and facilitate the communication of wildland fire research, knowledge, and tools to relevant stakeholders.
- Identify and prioritize NASA data, data systems, and data products that can contribute to improving the understanding, prediction and mitigation of wildland fires and their impacts.
- Develop and demonstrate a unified concept of operations for the safe and effective deployment of diverse air capabilities in active wildland fires.
- Develop and demonstrate affordable and deployable sensing technologies; and
- Use commercial data, as necessary, and where appropriate and practicable.

Environmental Protection Agency (EPA):

- Improve the understanding of wildland fire smoke impacts on communities, water, and outdoor and indoor air quality.
- Improve the understanding of smoke plume characteristics and chemical transformations and the contribution of wildland fire emissions to climate forcing emissions.
- Develop and improve tools, sensors, and technologies to accelerate the understanding, monitoring, and prediction of wildland fires and smoke exposure.
- Improve communication of wildland fire and smoke risk reduction strategies to the public.

Department of Energy (DOE):

- Research and develop tools, techniques, and technologies for advancing predictive capabilities relevant to wildland fires, fortifying energy infrastructure and improving relevant situational awareness capabilities, minimizing power disruption, and strengthening coordination between federal agencies and utilities.
- Coordinate data across relevant entities to inform the planning, design, development, construction, operation, and maintenance of transmission infrastructure.
- Align building energy efficiency practices with wildland fire research.

- Leverage National Laboratory capabilities to advance understanding and prediction of wildland fire occurrence, behavior, and impacts.
- Foster engagement between National Laboratories and relevant stakeholders to better understand the social and economic impact of power disruptions caused by wildland fires.