

**Implementation Guidelines for  
Executive Order 13728  
Wildland-Urban Interface Federal Risk  
Management**

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# Section 1

## Overview

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### 1.1 INTRODUCTION

The Wildland-Urban Interface (WUI) Federal Risk Mitigation Executive Order 13728 (EO) released on May 18, 2016 aims to mitigate wildfire risks to Federal buildings located in the WUI, reduce risks to people, and help minimize property loss to wildfire. In 2015 alone, more than 10 million acres of wildlands burned, requiring the service of more than 27,000 firefighters and resulting in \$2.1 billion spent by the U.S. Forest Service<sup>1</sup> (USFS) and the Department of the Interior (DOI) to suppress the fires—a record amount. Over the last decade, the fire season has become 2.5 months longer, and fires covering more than 10,000 acres increased, with the average area burned by wildland fires doubling in the last three decades to an estimated seven million acres per year. As climate change impacts, and in particular, drought conditions, become more common place, the risk due to wildfire is expected to increase.

Over 46 million homes in 70,000 communities are at risk of WUI fires, which have destroyed an average of 3,000 structures annually over the last decade. WUI fires are a rapidly growing<sup>2</sup> threat with an annual loss of over \$14 billion<sup>3</sup>. Within the last 100 years in the U.S., six of the top 10 most damaging single fire events involving structures were WUI fires and the WUI is continuing to grow at approximately 2 million acres per year. According to the USFS, 32% of housing units in the United States and one-tenth of all land with housing are situated in the WUI. Protection of public and private property in the WUI is also the largest cost driver for both Federal and State wildfire suppression operations.

Loss of Federal investments due to wildfires can be reduced if appropriate design and site considerations are employed. These typically add little or no additional cost. Such preparedness is also consistent with agencies' climate change adaptation plans. Through implementation of this EO, the Federal Government is taking proactive steps to enhance the resilience of buildings that are owned by the Federal Government and are located on Federal land from the threats of a wildfire.

The EO states that for new Federal buildings, and alterations to existing Federal buildings greater than 5,000 square feet, within the WUI and at moderate or greater risk to wildfire, Federal agencies should apply the wildfire-resistant design provisions outlined in the most current edition of the International Wildland-Urban Interface Code (IWUIC) promulgated by the International Code Council (ICC), or an equivalent nationally recognized code. The

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<sup>1</sup> [National Interagency Fire Center, 2016.](#)

<sup>2</sup> [http://www.fs.fed.us/rm/pubs\\_journals/2016/rmrs\\_2016\\_cooke\\_b002.pdf](http://www.fs.fed.us/rm/pubs_journals/2016/rmrs_2016_cooke_b002.pdf).

<sup>3</sup> Hall, J.R. 2009. The Total Cost of Fire in the United States. NFPA. Quincy, MA.

EO and this implementation guide are intended to prepare the impacted Federal agencies with guidance to protect their facilities from the risks of wildfires.

## **1.2 SCOPE OF EXECUTIVE ORDER**

The Wildland-Urban Interface Federal Risk Mitigation EO provides the basis for policy to strengthen the security and resilience of the Nation against wildfire, and to promote public safety, economic strength, and national security. In addition to the increased risk of wildfire due to the changing climate, the wildland-urban interface is growing as the number of houses and communities built in the WUI has steadily increased. The term WUI refers to the line, area, or zone where structures or development meet or intermingle with undeveloped wildland or vegetative fuels<sup>4</sup>. Even without direct contact from a fire, wind-blown embers from wildfires can travel over a mile and ignite building components and debris on and around a structure.

As directed by the EO, these implementation guidelines shall be developed by January 18, 2017 (within 240 days of the date of this order). The implementation guidelines support the Mitigation Framework Leadership Group (MitFLG) goals of providing assistance to the agencies in interpreting the code requirements as outlined in the executive order.

## **1.3 AGENCIES AFFECTED BY EXECUTIVE ORDER**

The WUI EO applies to all Federal agencies that are responsible for:

- Designing and constructing new Federally-owned buildings greater than 5,000 square feet on Federal land within a WUI area designated as presenting moderate or greater wildfire risk;
- Owning existing Federal buildings greater than 5,000 square feet on Federal land within a WUI area as designated as presenting moderate or greater wildfire risk, including performing activities to alter and/or maintain those buildings;
- Leasing space in newly constructed buildings for the predominant use of the Federal Government, greater than 5,000 rentable square feet within a WUI area designated as greater than moderate wildfire risk; and/or
- Assisting in the financing, through grants or loans, or guaranteeing the financing through loan or mortgage insurance of newly constructed buildings or of alterations to existing buildings greater than 5,000 square feet on land within a WUI area designated as moderate or greater wildfire risk.

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<sup>4</sup> International Wildland Urban Interface Code, 2015 Edition. International Code Council.

## **1.4 DEVELOPMENT OF IMPLEMENTATION GUIDELINES**

The MitFLG, coordinated by the Federal Emergency Management Agency (FEMA), has been charged with issuing these guidelines for implementing the EO. The Guidelines contained in this document represent recommendations formulated by Federal agencies that have responsibility for wildfire, facility, and real property management policy and procedures.

The Guidelines presented in this document are advisory only. They do not create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States. The use of any mandatory language in these Guidelines is intended only to summarize elements of this EO. The Guidelines provide broad assistance to Federal agencies on implementing the EO, and offer broad common information for use by all Federal agencies, so that each agency can establish its EO implementation policies and procedures that are both consistent with the EO and with statutory agency-specific requirements.

Each affected Federal agency is given the responsibility for developing and implementing its own WUI-related measures to fulfill the requirements of this EO, commensurate with its specific responsibilities.

## **Section 2 Implementation Guidelines**

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### **2.1 GENERAL RECOMMENDATIONS**

- Implementation policy development should be at the agency level.
- The provisions of the EO apply to new and existing Federally-owned buildings located in a WUI area designated as moderate or greater wildfire risk, as well as buildings leased by Federal agencies located in a WUI area designated as greater than moderate wildfire risk.
- Agencies with unique missions requiring WUI safety measures above those covered directly in the EO should establish and promulgate appropriate implementation and enforcement policies and procedures that include the minimum acceptable standards specified in the EO. Absent such unique agency mission requirements, implementation is to be in compliance with the minimum acceptable standards listed in the EO.

- Each agency should develop and implement procedures for reviewing and revising its WUI program periodically, to ensure that the agency is complying with the provisions of this EO.
- Heads of each agency are responsible for reporting once every two years to the Chair of the MitFLG, commencing May 18, 2018 (2 years from the date of the EO).

## 2.2 DETAILED RECOMMENDATIONS

The following pages provide section-by-section explanation and interpretation of the EO. The EO language is provided in shaded text boxes, followed by commentary, all of which is advisory in nature.

### EO 13728 Section 1

*By the authority vested in me as President by the Constitution and the laws of the United States of America, and to improve the Nation's resilience to wildfire, I hereby direct the following:*

*Section 1. Policy. It is the policy of the United States to strengthen the security and resilience of the Nation against the impacts of wildfire. The annual estimates on structure loss due to wildfire have increased dramatically over the past six decades as a result of multi-year drought conditions in combination with accumulated fuel loads, growing populations residing in the wildland-urban interface, and associated increases in the exposure of built environments. As such, we must continue to ensure our Nation is resilient to wildfire in order to promote public safety, economic strength, and national security.*

*The Federal Government must continue to take proactive steps to enhance the resilience of buildings that are owned by the Federal Government and are located on Federal land. Each executive department and agency (agency) responsible for implementing this order shall seek to enhance the resilience of its buildings when making investment decisions to ensure continued performance of essential functions and to reduce risks to its buildings' occupants in the event of a wildfire.*

### 2.2.1 Commentary on Section 1

The Federal Government has the responsibility to protect the safety of its workers and the public in or near its buildings and the capital investments that utilize federal funds. Specifically, with respect to this EO, adequate protection from wildfires must be provided. The EO supports enhanced resilience in emergencies by providing buildings, both new and existing, with levels of protection that meet the level of safety provided by existing codes, helping to ensure that buildings can continue to perform their essential functions after a wildfire event.

## EO 13728 Section 2(a)

**Section 2. Codes and Concurrent Requirements.** (a) Commencing within 90 days of the completion of the implementing guidelines as described in section 3(b)(i) of this order, each agency shall ensure that every new Federal building above 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk for which the agency has not completed design is in compliance with the 2015 edition of the International Wildland-Urban Interface Code (IWUIC) promulgated by the International Code Council (ICC), or an equivalent code, consistent with the provisions of and to the extent required by 40 U.S.C. 3312. When the ICC releases a new version of the IWUIC, a determination shall be made whether the new version is a nationally recognized code for the purposes of 40 U.S.C. 3312(b), as expeditiously as practicable, but not later than 2 years after the release of the new version. If a determination is made that a new version is a nationally recognized code, agencies shall ensure that any Federal building covered by this section for which the agency has not completed design is in compliance with that new version, or an equivalent code, consistent with the provisions of and to the extent required by 40 U.S.C. 3312.

### 2.2.2 Commentary on Sections 2(a)

Section 2 of the EO provides requirements to ensure wildfire resilience in the design and construction of new buildings that are Federally-owned or regulated, existing Federally-owned buildings that are altered, new buildings that are leased for Federal occupancy. The EO also strongly encourages agencies that assist in financing, through Federal grants or loans, or guaranteeing of financing, to ensure consideration of wildfire resilience in the design and construction of certain new buildings or alterations to certain existing buildings.

This EO stipulates that each agency shall determine if an updated edition of the IWUIC is a nationally recognized code within two years of its release by the ICC and subsequently adopt it for design and construction of any building that the agency has not yet programmed for construction (i.e., entered the program development phase where the following occurs: Finalize & Prioritize Requirements, Acquisition Planning, Validate cost estimates and availability of funding, and Establish program management baseline). Section 2h details minimum criteria for what may be an equivalent nationally recognized code to the IWUIC. Currently, other than the 2015 edition of the IWUIC, there is no other nationally recognized code that protects buildings from loss from wildfire. However, there are other methods for assessing wildfire risk (see Section 2h). Any department or agency who has questions on making the determination if an updated edition of the IWUIC is a nationally recognized code may contact the MitFLG (see Appendix D for contact information).

Detailed discussion on the definition of a building and associated terms is provided in Section 4.

## EO 13728 Section 2(b)

**Section 2b.** *Commencing within 90 days of the completion of the implementing guidelines as described in section 3(b)(i) of this order, each agency responsible for the alteration of an existing Federal building above 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk for which the agency has not completed design shall ensure that the alteration is effectuated in compliance with the IWUIC, or an equivalent code, consistent with the provisions of and to the extent required by 40 U.S.C. 3312. When the ICC releases a new version of the IWUIC, a determination shall be made whether the new version is a nationally recognized code for the purposes of 40 U.S.C. 3312(b), as expeditiously as practicable, but not later than 2 years after the release of the new version. If a determination is made that a new version is a nationally recognized code, agencies shall ensure that any Federal building covered by this section for which the agency has not completed design is in compliance with that new version, or an equivalent code, consistent with the provisions of and to the extent required by 40 U.S.C. 3312.*

### 2.2.3 Commentary on Sections 2(b)

Commencing 90 days following completion of this implementing guideline, each agency shall ensure that any alteration of an existing Federal Building (where the building is above 5,000 gross square feet and is located on Federal land) comply with the following: If the Federal Building is within a WUI designated as presenting moderate or greater wildfire risk, prior to the completion of design, the alteration shall be in compliance with the 2015 edition of the IWUIC or an equivalent nationally recognized code.

Alterations to an existing building fall within the scope of IWUIC, Chapter 1 Scope and General Requirements, Section 101.5 Additions or alterations. According to this section of IWUIC, additions or alterations are permitted to be made to any building or structure without requiring the existing building or structure to comply with all the requirements of the IWUIC, provided the addition or alteration conforms to that required for a new building or structure. Exceptions are 1) when provisions of the IWUIC that specifically apply to existing conditions are retroactive, and 2) when additions or alterations will cause the existing building or structure to become unsafe.

## **EO 13728 Sections 2(c), 2(d), 2(e), and 2(f)**

**Section 2.** (c) *Each agency that owns an existing Federal building above 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk is strongly encouraged to ensure that such existing buildings are in compliance with the IWUIC, or an equivalent code.*

(d) *The heads of agencies whose activities are covered by sections 2(a) and 2(b) of this order shall complete a wildfire risk assessment of their existing Federal buildings above 5,000 gross square feet within the wildland-urban interface and are strongly encouraged to consider creating and maintaining a defensible space in compliance with the IWUIC, or an equivalent code, for each of those buildings they determine to be at highest risk.*

(e) *Each agency that leases space in a building to be constructed for the predominant use of an agency above 5,000 rentable square feet in the wildland-urban interface in an area of greater than moderate wildfire risk is strongly encouraged to ensure that the building is designed and constructed in accord with the IWUIC, or an equivalent code.*

(f) *Each agency assisting in the financing, through Federal grants or loans, or guaranteeing the financing, through loan or mortgage insurance premiums, of a newly constructed building or of an alteration of an existing building above 5,000 gross square feet within the wildland-urban interface at moderate or greater wildfire risk shall consider updating its procedures for providing the assistance to be consistent with sections 2(a) and 2(b) of this order, to ensure appropriate consideration of wildfire-resistant design and construction.*

### **2.2.4 Commentary on Section 2(c), 2(d), 2(e), and 2(f)**

Section 2c of the EO provides guidance for all agencies that own:

- existing Federal buildings greater than 5,000 gross square feet,
- located within the WUI, and
- on a site designated as having a fire hazard severity of moderate or greater wildfire risk.

Agencies are strongly encouraged to ensure these buildings meet the requirements in the IWUIC, or an equivalent nationally recognized code.

Section 2d of the EO *requires* the heads of Federal agencies whose design and construction activities are covered by Sections 2(a) and 2(b) of the EO, to complete a wildfire risk assessment of all existing Federal buildings (see Appendix C for additional information):

- greater than 5,000 gross square feet, and
- located within a wildland-urban interface area.

In addition, heads of Federal agencies are *strongly encouraged* to evaluate wildland fire ignition hazards surrounding each respective building based on wildfire risk exposures and to create and maintain a defensible space in accordance with the requirements in the IWUIC, or an equivalent nationally recognized code.

A defensible space is considered the cleared or modified area surrounding a building where combustible materials and vegetation have been removed or modified to mitigate the risk to life and property from wildland fire exposures, exposures from adjacent buildings, and to reduce the potential for a building fire to spread to nearby wildland fuels. Special attention should be taken to remove or reduce any combustible materials (e.g., plants, outdoor furnishings, litter, dead vegetation, construction materials, non-residential structures) to slow the rate and intensity of an advancing wildfire, which in turn could ignite a building on the property.

Additional information for determining the required distance for a defensible space from the perimeter or projection of a building located in a wildland-urban interface area can be found in the IWUIC.

Section 2e provides guidance when any agency is planning to lease space, that:

- is greater than 5,000 rentable square feet,
- is to be new construction,
- is predominantly occupied by Federal agencies,
- is located in the WUI, and
- is on a site designated as having a fire hazard severity of *greater than moderate* wildfire risk.

The EO *encourages* the agency to ensure that the building is in compliance with the requirements in the IWUIC, or an equivalent nationally recognized code.

Section 2f of the EO provides guidance for agencies providing financing, through Federal grants or loans, loan or mortgage insurance premiums, of newly constructed buildings or alterations to:

- buildings above 5,000 square feet,
- in a WUI area, and
- at moderate or greater wildfire risk.

These agencies shall consider updating their procedures for providing assistance congruent with Sections 2a and 2b of this EO.

## EO 13728 Section 2(g)

**Section 2.** (g) *To the extent permitted by law, the heads of all agencies may:*

*(i) require higher performance levels than exist in the codes described in section 2(a) of this order;*

*(ii) apply the requirements within section 2(a) of this order to new buildings less than 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk; and*

*(iii) apply the requirements within section 2(b) of this order to existing buildings less than 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk.*

### 2.2.5 Commentary on Section 2(g)

The EO allows the agencies to provide more stringent requirements for their Federally owned or leased structures than those outlined in EO. The heads of agencies may choose to apply the requirements of the EO to new or existing structures less than 5,000 square feet.

## EO 13728 Section 2(h)

**Section 2h.** *When calculating whether a building is at moderate or greater wildfire risk, agencies should act in accordance with the methods described in the 2015 edition of the IWUIC, or any subsequent version that is determined to be a nationally recognized code for the purposes of 40 U.S.C. 3312(b), or an equivalent code, or in accordance with an equivalent method.*

### 2.2.6 Commentary on Section 2(h)

Wildfire risk can be estimated using a range of existing assessment tools. These include, but are not limited to, a Wildfire Hazard Potential Map developed by the U.S. Forest Service, a Fire Hazard Severity Form provided by IWUIC, and various assessment tools within the WUI Toolkit assembled by the U.S. Fire Administration. The [WUI Toolkit](#)<sup>5</sup> provides a compilation of recognized assessment tools available to the public. Additional information on tools to estimate wildfire risk can be found in Appendix C.

<sup>5</sup> [https://www.usfa.fema.gov/wui\\_toolkit/](https://www.usfa.fema.gov/wui_toolkit/)

IWUIC Chapter 5, Special Building Construction Regulations, establishes minimum standards to locate, design and construct buildings and structures based on the various levels of hazards. Chapter 6, Fire Protection Requirements, establishes the minimum requirements to mitigate the risk of wildfire.

Whether a building is at moderate or greater wildfire risk can also be assessed using equivalent methods or nationally recognized codes. Equivalent tools to assess wildfire risk must, at a minimum, incorporate 1) vegetative fuel type and loading, 2) frequency of critical fire weather, 3) defensible space, 4) terrain, 5) existing building construction materials, and 6) availability of water supply.

An equivalent nationally recognized code for determining wildfire risk or providing structural resilience to a wildfire, should address the following criteria and, at a minimum:

- Be consensus based,
- Be open to stakeholders for comment and development,
- Provide a transparent process for development and appeals,
- Calculate the wildfire risk,
- Provide minimum requirements for emergency vehicle access, water supply, and ignition resistant construction & materials,
- Address topics such as, but not limited to, fire-resistance rated construction, automatic sprinkler protection, and
- Include defensible space.

### **EO 13728 Section 2(i)**

*Section 2i. Each building constructed or altered in accordance with section 2(a) or (b) of this order shall comply with the IWUIC, or an equivalent code, only to the maximum extent feasible as determined by the head of an agency.*

### **2.2.7 Commentary on Section 2(i)**

The head of the Federal agency determines the degree of compliance that represents the “maximum extent feasible” for their organization. As an agency considers resource availability, budget priorities, and other extenuating circumstances that might result in less than full compliance with this executive order, the impact of not complying fully also needs to be considered. Complete adherence to the IWUIC or an equivalent nationally recognized code will increase the resilience of structures in the WUI. For a WUI fire, increased resilience translates into reducing the initial fire losses as well as minimizing recovery time and costs to return to pre-fire levels of service.

## EO 13728 Section 3(a)

### ***Section 3. Agencies Responsibilities.***

*(a) The heads of all agencies that own Federal buildings above 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk shall determine the appropriate process within their respective agencies to ensure compliance with this order.*

### 2.2.8 Commentary on Section 3(a)

This section of the EO directs agencies that own buildings, greater than 5,000 gross square feet within the WUI at moderate or greater wildfire risk, to develop processes to ensure their agencies are in compliance with the requirements of this order; and also to ensure, at a minimum, compliance with the IWUIC. Additional methods can be found in Appendix C.

## EO 13728 Section 3(b)

### ***Section 3b.***

*(b) The Mitigation Framework Leadership Group (MitFLG) shall:*

*(i) create implementing guidelines to advise and assist agency compliance with the code requirements within 240 days of the date of this order;*

*(ii) provide assistance to the agencies in interpreting the implementing guidelines*

### 2.2.9 Commentary on Section 3(b)

Section 3b of the EO details the responsibility of the MitFLG in regards to these guidelines and the EO. The MitFLG, through these guidelines, will provide assistance and guidance for implementing this EO. Agency heads should identify the process to receive assistance and implement the guidelines.

## EO 13728 Section 3(c)

### Section 3c.

(c) When determining whether buildings are located within the wildland-urban interface, agencies shall use the U.S. Department of Agriculture Forest Service's, "The 2010 Wildland-Urban Interface of the Conterminous United States," or an equivalent tool. The Secretary of Agriculture shall provide assistance to the agencies in determining whether buildings are located within the wildland-urban interface.

### 2.2.10 Commentary on Section 3(c)

Section 3c of the EO details how the WUI is determined for this EO. When determining whether buildings are located within the WUI, agencies shall use the U.S. Department of Agriculture (USDA) USFS', *The 2010 Wildland-Urban Interface of the Conterminous United States*, or an equivalent tool. *The 2010 Wildland-Urban Interface of the Conterminous United States* report provides a spatially-detailed assessment of the WUI across the conterminous United States, to inform both national and local land management agencies about the WUI and associated issues. Note that similar data, which is needed for Alaska based on the significant wildfire risk that exists there, is currently under development by the State. All maps, graphics, and statistics are available for public use, as is the associated 2015 data, and may be used within a geospatial information system (GIS) for WUI mapping and analysis at national, state, and local levels. The report, data, and contacts for assistance are available at [www.nrs.fs.fed.us/pubs/48642](http://www.nrs.fs.fed.us/pubs/48642).

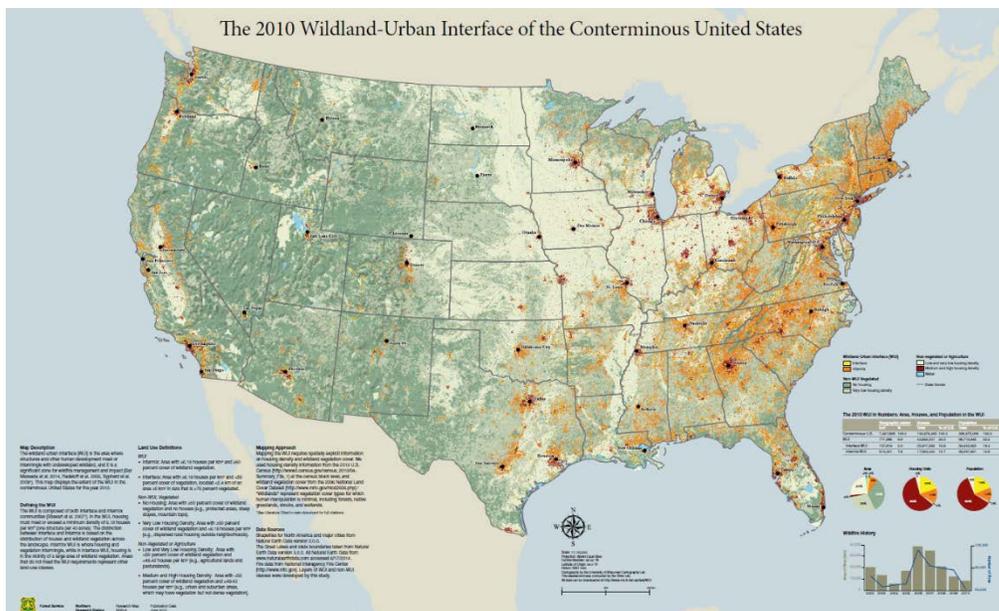


Figure 1. The 2010 Wildland-Urban Interface of the Conterminous United States

## EO 13728 Section 3(d)

### *Section 3d.*

*(d) The heads of agencies whose activities are covered by sections 2(a) and 2(b) of this order shall submit a report once every 2 years to the Chair of the MitFLG on their progress in implementing the order, commencing 2 years from the date of this order.*

### 2.2.11 Commentary on Section 3(d)

Section 3(d) of the EO directs all agencies with activities covered by sections 2(a) and 2(b) of the EO to submit biennial reports covering their progress in implementing the order, commencing two years after it was issued. The first biennial report must be submitted no later than May 18, 2018, to the Chair of the MitFLG. This report may follow a format determined by the agency.

The report should include the following information, at a minimum, from each agency that is in any way covered by sections 2(a) and 2(b) of the EO<sup>6</sup>:

- For agencies engaged in the design and construction of new buildings above 5,000 gross square feet on Federal land within the WUI: Each agency should describe its efforts over the previous two years to develop, adopt, and implement policies that require the use of the 2015 edition of the IWUIC, or an equivalent nationally recognized code (see Section 2h);
- For agencies engaged in performing alterations in existing, owned buildings that are above 5,000 gross square feet on Federal land within the WUI at moderate or greater risk to wildfire: Each agency should describe its efforts over the previous two years to develop, adopt, and implement policies that require the use of the 2015 edition of the IWUIC, or an equivalent nationally recognized code;
- For agencies that lease space in a building to be constructed for the predominant use of an agency above 5,000 rentable square feet in the WUI in an areas of greater than moderate wildfire risk: Each agency should provide a brief summary of any new buildings that were designed and constructed in accordance with the IWUIC, or equivalent code; and
- For agencies that assist in the financing, through Federal grants or loans, or guaranteeing of financing, though loan or mortgage insurance premiums, of a newly constructed building or of an alteration of an existing building above 5,000 gross square feet within the WUI: Each agency should describe changes to procedures for providing assistance to be consistent with sections 2(a) and 2(b) of the EO, to ensure appropriate consideration of wildfire-resistant design and construction.

In addition to the above information, the report should include:

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<sup>6</sup> Agencies that are covered by sections other than 2(a) and 2(b) are not required to submit an annual report.

- Date of submission,
- Agency Name, and
- Time Period covered by report.

For new Federally-owned buildings that fall within the parameters of 2(a) of the EO, the report should include:

- Number and location of new buildings constructed (completed) that fall within the parameters of 2(a) of the EO during the two-year reporting time period<sup>7</sup>
- Listing of the nationally recognized code, or equivalent nationally recognized code (see Section 2h), used in the design of the Federally-owned building located within the WUI, including the edition of each code listed
- Number of buildings constructed (completed) during the two-year period that exceed minimum requirements of the IWUIC (or an equivalent nationally recognized code)
- Brief description of agency procedures for establishing and applying building performance objectives that meet or exceed minimum requirements of the IWUIC (or an equivalent nationally recognized code)
- Wildfire risk assessment results
- Agency justification in the case(s) where agencies did not apply the IWUIC, or an equivalent nationally recognized code, as per section 2(a) of the EO

For alterations to existing buildings that fall within the parameters of 2(b) of the EO, the report should include:

- Number and location of existing Federal buildings that fall within the parameters of 2(b) of the EO during the two-year reporting time period
- Listing of the nationally recognized codes used in the alteration of the Federally-owned building located within the WUI, including the edition of each code listed
- Number of buildings altered during the two-year period that exceed minimum requirements of the IWUIC (or an equivalent nationally recognized code)
- Brief description of agency procedures for establishing and applying building performance objectives that meet or exceed minimum requirements of the IWUIC (or an equivalent nationally recognized code)
- Wildfire risk assessment results
- Agency justification in the case(s) where agencies did not apply the IWUIC, or an equivalent nationally recognized code, as per section 2(b) of the EO

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<sup>7</sup> Agencies with facilities whose locations are protected for national security reasons need not provide the locations of those facilities.

## EO 13728 Section 4

**Section 4. *Definition.*** *As used in this order, "building" means a constructed asset that is enclosed with walls and a roof that provides space for agencies to perform activities or store materials as well as provides spaces for people to live or work.*

### 2.2.12 Commentary on Section 4

The definition of a building is provided in the IWUIC as *any structure used or intended for supporting or sheltering any use or occupancy*, however, for the purpose of this EO, a building is defined as a “*constructed asset that is enclosed with walls and a roof that provides space for agencies to perform activities or store materials as well as provides spaces for people to live or work*”.

Additional terms that may be applicable are provided below. The family of international codes that includes the IWUIC contains definitions for various terms. The definitions below are applicable for this guidance and EO.

**Addition:** Per the 2015 IBC, Chapter 2, an addition is an extension or increase in floor area, number of stories, or height of a building or structure.

**Alteration:** Per the 2015 IBC, Chapter 2, an alteration is any construction or renovation to an existing structure other than a repair or addition.

**Defensible Space:** Per the 2015 IWUIC, Chapter 2, an area, either natural or man-made, where material capable of allowing a fire to spread unchecked has been treated, cleared or modified to slow the rate and intensity of an advancing wildfire and to create an area for fire suppression operations to occur.

**Dwelling:** Per the 2015 IWUIC, Chapter 2, a dwelling is a building that contains one or two dwelling units used, intended or designed to be used, rented, leased, let or hired out to be occupied for living purposes.

**Existing Structure:** Per the 2015 IBC, Chapter 2, a structure erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued.

**Temporary Structures:** Per the 2015 IBC, 3103.1. Temporary Structures are structures erected for a period of less than 180 days. Tents and other membrane structures erected for a period of less than 180 days shall comply with the International Fire Code.

**Wildland Urban Interface Area:** Per the 2015 IWUIC, Chapter 2, the geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels

## EO 13728 Section 5

### *Section 5. General Provisions.*

- (a) Nothing in this order shall be construed to impair or otherwise affect:*
- (i) the authority granted by law to an executive department, agency, or the head thereof; or*
  - (ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.*
- (b) This order shall be implemented consistent with applicable law, including the National Historic Preservation Act of 1966, and subject to the availability of appropriations.*
- (c) This order applies only to buildings within the United States and its territories and possessions.*
- (d) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.*

### 2.2.13 Commentary on Section 5

Section 5 provides several general provisions clarifying the scope of the EO. Section 5(a) stipulates that the EO does not impair or conflict with other authorities granted by law to Federal agencies or to the Director of the Office of Management and Budget (OMB). Section 5(b) makes clear that the order shall be implemented consistent with applicable law and subject to availability of appropriations. Section 5(c) stipulates that the EO applies to buildings in the United States and its territories only. Section 5(d) explains that the EO does not create any legal right or action against the Federal Government, its subdivisions, officers, employees, agents, or against any other person.

## Appendix A: Executive Order

*Administration of Barack Obama, 2016*

### **Executive Order 13728—Wildland-Urban Interface Federal Risk Mitigation**

*May 18, 2016*

By the authority vested in me as President by the Constitution and the laws of the United States of America, and to improve the Nation's resilience to wildfire, I hereby direct the following:

*Section 1. Policy.* It is the policy of the United States to strengthen the security and resilience of the Nation against the impacts of wildfire. The annual estimates on structure loss due to wildfire have increased dramatically over the past six decades as a result of multi-year drought conditions in combination with accumulated fuel loads, growing populations residing in the wildland-urban interface, and associated increases in the exposure of built environments. As such, we must continue to ensure our Nation is resilient to wildfire in order to promote public safety, economic strength, and national security.

The Federal Government must continue to take proactive steps to enhance the resilience of buildings that are owned by the Federal Government and are located on Federal land. Each executive department and agency (agency) responsible for implementing this order shall seek to enhance the resilience of its buildings when making investment decisions to ensure continued performance of essential functions and to reduce risks to its buildings' occupants in the event of a wildfire.

*Sec. 2. Codes and Concurrent Requirements.* (a) Commencing within 90 days of the completion of the implementing guidelines as described in section 3(b)(i) of this order, each agency shall ensure that every new Federal building above 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk for which the agency has not completed design is in compliance with the 2015 edition of the International Wildland-Urban Interface Code (IWUIC) promulgated by the International Code Council (ICC), or an equivalent code, consistent with the provisions of and to the extent required by 40 U.S.C. 3312. When the ICC releases a new version of the IWUIC, a determination shall be made whether the new version is a nationally recognized code for the purposes of 40 U.S.C. 3312(b), as expeditiously as practicable, but not later than 2 years after the release of the new version. If a determination is made that a new version is a nationally recognized code, agencies shall ensure that any Federal building covered by this section for which the agency has not completed design is in compliance with that new version, or an

equivalent code, consistent with the provisions of and to the extent required by 40 U.S.C. 3312.

(b) Commencing within 90 days of the completion of the implementing guidelines as described in section 3(b)(i) of this order, each agency responsible for the alteration of an existing Federal building above 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk for which the agency has not completed design shall ensure that the alteration is effectuated in compliance with the IWUIC, or an equivalent code, consistent with the provisions of and to the extent required by 40 U.S.C. 3312. When the ICC releases a new version of the IWUIC, a determination shall be made whether the new version is a nationally recognized code for the purposes of 40 U.S.C. 3312(b), as expeditiously as practicable, but not later than 2 years after the release of the new version. If a determination is made that a new version is a nationally recognized code, agencies shall ensure that any Federal building covered by this section for which the agency has not completed design is in compliance with that new version, or an equivalent code, consistent with the provisions of and to the extent required by 40 U.S.C. 3312.

(c) Each agency that owns an existing Federal building above 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk is strongly encouraged to ensure that such existing buildings are in compliance with the IWUIC, or an equivalent code.

(d) The heads of agencies whose activities are covered by sections 2(a) and 2(b) of this order shall complete a wildfire risk assessment of their existing Federal buildings above 5,000 gross square feet within the wildland-urban interface and are strongly encouraged to consider creating and maintaining a defensible space in compliance with the IWUIC, or an equivalent code, for each of those buildings they determine to be at highest risk.

(e) Each agency that leases space in a building to be constructed for the predominant use of an agency above 5,000 rentable square feet in the wildland-urban interface in an area of greater than moderate wildfire risk is strongly encouraged to ensure that the building is designed and constructed in accord with the IWUIC, or an equivalent code.

(f) Each agency assisting in the financing, through Federal grants or loans, or guaranteeing the financing, through loan or mortgage insurance premiums, of a newly constructed building or of an alteration of an existing building above 5,000 gross square feet within the wildland-urban interface at moderate or greater wildfire risk shall consider updating its procedures for providing the assistance to be consistent with sections 2(a) and 2(b) of this order, to ensure appropriate consideration of wildfire-resistant design and construction.

(g) To the extent permitted by law, the heads of all agencies may:

(i) require higher performance levels than exist in the codes described in section 2(a) of this order;

(ii) apply the requirements within section 2(a) of this order to new buildings less than 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk; and

(iii) apply the requirements within section 2(b) of this order to existing buildings less than 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk.

(h) When calculating whether a building is at moderate or greater wildfire risk, agencies should act in accordance with the methods described in the 2015 edition of the IWUIC, or any subsequent version that is determined to be a nationally recognized code for the purposes of 40 U.S.C. 3312(b), or an equivalent code, or in accordance with an equivalent method.

(i) Each building constructed or altered in accordance with section 2(a) or (b) of this order shall comply with the IWUIC, or an equivalent code, only to the maximum extent feasible as determined by the head of an agency.

*Sec. 3. Agency Responsibilities.* (a) The heads of all agencies that own Federal buildings above 5,000 gross square feet on Federal land within the wildland-urban interface at moderate or greater wildfire risk shall determine the appropriate process within their respective agencies to ensure compliance with this order.

(b) The Mitigation Framework Leadership Group (MitFLG) shall: (i) create implementing guidelines to advise and assist agency compliance with the code requirements within 240 days of the date of this order;

(ii) provide assistance to the agencies in interpreting the implementing guidelines.

(c) When determining whether buildings are located within the wildland-urban interface, agencies shall use the U.S. Department of Agriculture Forest Service's, "The 2010 Wildland-Urban Interface of the Conterminous United States," or an equivalent tool. The Secretary of Agriculture shall provide assistance to the agencies in determining whether buildings are located within the wildland-urban interface.

(d) The heads of agencies whose activities are covered by sections 2(a) and 2(b) of this order shall submit a report once every 2 years to the Chair of the MitFLG on their progress in implementing the order, commencing 2 years from the date of this order.

*Sec. 4. Definition.* As used in this order, “building” means a constructed asset that is enclosed with walls and a roof that provides space for agencies to perform activities or store materials as well as provides spaces for people to live or work.

*Sec. 5. General Provisions.* (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department, agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law, including the National Historic Preservation Act of 1966, and subject to the availability of appropriations.

(c) This order applies only to buildings within the United States and its territories and possessions.

(d) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

BARACK OBAMA

The White House,

May 18, 2016.

## Appendix B: IWUIC Comparison Table

A general summary of the compliance of various structures to the 2015 IWUIC is provided below. §101.2 – Scope: “The provisions of this code shall apply to the construction, alteration, movement, repair, maintenance and use of any building, structure or premises within the wildland-urban interface areas”.

Table B-1. Requirements for Existing and New Buildings

Requirement (IWUIC Code Section)	Existing Structure /Building	New Structure /Building	Specific Requirement and / or Comments
<b>Chapter 1 Scope and Administration</b>			
<b>Additions or Alterations</b> (§101.5)	✓		Additions or alterations are allowed to existing buildings without requiring the entire building to comply with the entire code, provided the addition or alteration complies with the requirements for a new building or structure.
<b>Practical Difficulties</b> (§105.1)	✓	✓	Allows an agency to grant modifications for individual cases where application of the code is impractical.
<b>Alternative materials or Methods</b> (§105.3)	✓	✓	Allows an agency to use alternate materials or methods to achieve a result as long as it complies with the intent of the code.
<b>Chapter 4 Wildland-Urban Interface Area Requirements</b>			
<b>Driveways</b> (§403.2)		✓	For fire apparatus access, driveway requirements are outlined and dimensioned for driveways, turnarounds, turnouts and bridges.
<b>Marking of Roads</b> (§403.4)	✓		Identify access roads via approved signs.
<b>Marking of Fire Protection Equipment</b> (§403.5)	✓	✓	Identify and mark fire protection equipment and fire hydrants.
<b>Address Markers</b> (§403.6)	✓	✓	Building shall have a permanently posted address.
<b>Water Supply</b> (§404 )		✓	Approved water source shall have adequate water supply. Water source locations not more than 1,000 feet from building. Approved draft sites shall be provided at natural water sources. Hydrants shall be designed and constructed in accordance with nationally recognized standards. Adequate water supply required. Access to water supply shall be unobstructed and approved by fire department rated Class 9 or better. Shall be subject to periodic tests and be reliable. Defensible space required around water supply pumps and pump houses. Standby power provided.
<b>Chapter 5 Fire Hazard Severity</b>			
<b>Fire Hazard Severity</b> (§502)	Partial Check	✓	Establish fire hazard severity of building sites using critical fire weather frequency and fuel model. Includes modifications to existing buildings.
<b>Ignition-Resistant Construction</b> (Table 503.1)	Partial Check	✓	New buildings shall meet these construction requirements. Ignition resistant building materials (includes modifications to existing buildings).

<b>Requirement</b> (IWUIC Code Section)	<b>Existing Structure /Building</b>	<b>New Structure /Building</b>	<b>Specific Requirement and / or Comments</b>
<b>Class 1 Ignition-resistant construction</b> (§504.2 – 504.11)		✓	Discusses roof coverings, protection of eaves, gutters and downspouts, exterior walls, underfloor enclosures, appendages and projections, exterior glazing, exterior doors, vents, detached accessory structures.
<b>Class 2 Ignition-resistant construction</b> (§505)		✓	Discusses roof coverings, protection of eaves, gutters and downspouts, exterior walls, underfloor enclosures, appendages and projections, exterior glazing, exterior doors, vents, detached accessory structures.
<b>Class 3 Ignition-resistant construction</b> (§506)		✓	Roof coverings, underfloor enclosures, gutters and downspouts.
<b>Roof covering repair</b> (§507)	✓		Roof coverings that are replaced or have 25% or more replaced in a 12-month period shall be replaced with a roof covering required for new construction based on the type of ignition-resistant construction specified in accordance with Section 503.
<b>Chapter 6 Fire Protection Requirements</b>			
<b>Approved automatic sprinkler system</b> (§602)	Partial check for additions	✓	Only for Class 1 ignition-resistant construction. For a new buildings shall install approved automatic sprinklers to meet requirements of Class 1 Ignition-resistant construction.
<b>Defensible Space</b> (§603)	✓	✓	Modify the fuel load in areas adjacent to structures to create a defensible space.
<b>Maintenance of Defensible Space</b> (§604)	✓	✓	Areas adjacent to structures will be kept clear of nonfire-resistive vegetation or growth.
<b>Spark Arresters</b> (§605)	✓	✓	Chimneys shall be provided with spark arresters
<b>Liquefied petroleum gas installations</b> (§606)	✓	✓	Storage of LPG shall be within the defensible space in accordance with International Fire code.
<b>Storage of firewood and other combustible materials</b> (§607)	✓	✓	Shall not be stored in unenclosed spaces, beneath buildings, on decks, under eaves, projections, and/or overhangs.

## Appendix C: Tools and Methods to Assess Wildfire Hazard Risk

The EO details how the WUI is determined for this EO, but it does not speak to the determination of the wildfire hazard potential for those buildings. In an attempt to offer resources for assessing the wildfire hazard potential we offer the following tools:

- **The Wildfire Hazard Potential (WHP) map**
- **Fire Hazard Severity Table 502.1 (IWUIC)**
- **Fire Hazard Severity Form**
- **The U.S. Fire Administration’s WUI Toolkit**

Additional assistance in estimating wildfire hazard risk can be accessed through local offices of the Federal agencies, such as Department of the Interior or United States Forest Service, or State Forestry Agencies (Appendix D).

### **Wildfire Hazard Potential Map**

The wildfire hazard potential (WHP) map is a raster geospatial product produced by the USDA’s U.S. Forest Service’s Fire Modeling Institute that can help to inform evaluations of wildfire risk or prioritization of fuels management needs across very large landscapes (millions of acres). The specific objective with the WHP map is to depict the relative potential for wildfire that would be difficult for suppression resources to contain. With datasets as inputs, an index of WHP for all of the conterminous United States at a 270-meter resolution was produced. The WHP map is presented in two forms: 1) continuous integer values, and 2) five WHP classes of very low, low, moderate, high, and very high.

On its own, WHP is not an explicit map of wildfire threat or risk, but when paired with spatial data depicting highly valued resources and assets such as communities, structures, or powerlines, it can approximate relative wildfire risk to those resources and assets. WHP is also not a forecast or wildfire outlook for any particular season, as it does not include any information on current or forecasted weather or fuel moisture conditions. It is instead intended for long-term strategic planning and fuels management. The WHP is located at <http://firelab.org/project/wildfire-hazard-potential>.

According to the USFS, the data is not an explicit map of wildfire threat or risk; nor is it a forecast or outlook model for any particular season. When paired with spatial data depicting resources and assets such as communities, structures, or power lines, it can approximate relative wildfire risk to those resources and assets. It is instead intended for long-term strategic planning and fuels management

### **Fire Hazard Severity Table 502.1 (IWUIC)**

The IWUIC provides guidance on defining or calculating the fire hazard severity of buildings sites and buildings. Chapter 5, Special Building Construction Regulations, Section 502 (IWUIC 2015) incorporates fuels, slope, and critical fire weather frequency (Table 502.1) to provide an assessment of fire hazard severity. When used to estimate fire hazard severity, Table 502.1 may be used in place of the Fire Hazard Severity Form.

**TABLE 502.1  
FIRE HAZARD SEVERITY**

FUEL MODEL <sup>b</sup>	CRITICAL FIRE WEATHER FREQUENCY								
	≤ 1 Day <sup>a</sup>			2 to 7 days <sup>a</sup>			≥ 8 days <sup>a</sup>		
	Slope (%)			Slope (%)			Slope (%)		
	≤ 40	41-60	≥ 61	≤ 40	41-60	≥ 61	≤ 40	41-60	≥ 61
Light fuel	M	M	M	M	M	M	M	M	H
Medium fuel	M	M	H	H	H	H	E	E	E
Heavy fuel	H	H	H	H	E	E	E	E	E

H = High hazard;  
M = Moderate hazard.

a. Days per annum.

b. Where required by the code official, fuel classification shall be based on the historical fuel type for the area.

## Fire Hazard Severity Form

Fire Hazard Severity Form is a checklist provided in Appendix C of the 2015 IWUIC. When utilized, this form is used in place of Table 502.1 to determine fire hazard severity. Checklist elements are assigned between 1 and 20 points depending on different attributes of a structure. Cumulative point totals of 40-59 points result in a Moderate Hazard, 60-74 points indicate a High Hazard, and accumulated points higher than 75 denote an Extreme Hazard. A read-only version of the 2015 International Wildland Urban Interface Code- (IWUIC) can be accessed at <http://codes.iccsafe.org/app/book/toc/2015/I-Codes/2015%20IWUIC%20HTML/index.html>.

## Wildland Urban Interface Toolkit

A number of WUI fire related resources can be accessed on the WUI Toolkit website maintained by the U.S. Fire Administration. Resources include outreach programs including Firewise, Ready, Set, Go!, and other general awareness and outreach information. The site also provides the Fire Adapted Communities Self-Assessment Tool, resources on Fire Adapted Communities and Fire Safe Councils, Codes & Standards including IWUIC and National Fire, and the Insurance Institute for Business and Home Safety Assessment Checklist. The U.S. Fire Administration WUI Toolkit resources can be accessed at [https://www.usfa.fema.gov/wui\\_toolkit/](https://www.usfa.fema.gov/wui_toolkit/)

## Appendix D: Contacts

Additional information can be obtained from the following groups or agencies:

### Department of the Interior:

- Office of the Secretary, Office of Wildland Fire <https://www.doi.gov/wildlandfire>

### USDA, Forest Service:

- Fire and Aviation Management <http://www.fs.fed.us/fire/>

**Mitigation Framework Leadership Group:** <https://www.fema.gov/national-mitigation-framework>

**National Interagency Fire Center:** <https://www.nifc.gov/index.html>

### State Forestry Agencies:

- Alabama Forestry Commission: [www.forestry.state.al.us](http://www.forestry.state.al.us)
- Alaska Division of Forestry: [www.forestry.alaska.gov](http://www.forestry.alaska.gov)
- Arizona Department of Forestry and Fire Management: [www.azsf.az.gov](http://www.azsf.az.gov)
- Arkansas Forestry Commission: [www.forestry.arkansas.gov](http://www.forestry.arkansas.gov)
- California Department of Forestry and Fire Protection (CAL FIRE): [www.fire.ca.gov](http://www.fire.ca.gov)
- Colorado State Forest Service: [www.csfs.colostate.edu](http://www.csfs.colostate.edu)
- Connecticut Division of Forestry: [www.ct.gov/deep](http://www.ct.gov/deep)
- Delaware Forest Service: [www.dda.delaware.gov/forestry](http://www.dda.delaware.gov/forestry)
- Florida Forest Service: [www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service](http://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service)
- Georgia Forestry Commission: [www.gfc.state.ga.us](http://www.gfc.state.ga.us)
- Hawaii Division of Forestry and Wildlife: [www.dlnr.hawaii.gov/dofaw](http://www.dlnr.hawaii.gov/dofaw)
- Idaho Department of Lands: [www.idl.idaho.gov](http://www.idl.idaho.gov)
- Illinois Department of Natural Resources, Division of Forest Resources: <http://www.dnr.illinois.gov/conservation/Forestry/Pages/default.aspx>
- Indiana Department of Natural Resources, Division of Forestry: [www.in.gov/dnr/forestry](http://www.in.gov/dnr/forestry)
- Iowa Department of Natural Resources: [www.iowadnr.gov/Environment/Forestry](http://www.iowadnr.gov/Environment/Forestry)
- Kansas Forest Service: [www.kansasforests.org](http://www.kansasforests.org)
- Kentucky Division of Forestry: [www.forestry.ky.gov](http://www.forestry.ky.gov)
- Louisiana Office of Forestry: <http://www.ldaf.state.la.us/forestry/>
- Maine Forest Service: [www.maine.gov/dacf/forestry](http://www.maine.gov/dacf/forestry)
- Maryland Department of Natural Resources, Forest Service: [www.dnr.state.md.us/forests](http://www.dnr.state.md.us/forests)

- Massachusetts Department of Conservation and Recreation, Bureau of Forest Fire Control and Forestry: [www.mass.gov/eea/agencies/dcr](http://www.mass.gov/eea/agencies/dcr)
- Michigan Forest Management Division: [www.michigan.gov/forestry](http://www.michigan.gov/forestry)
- Minnesota Division of Forestry: [www.dnr.state.mn.us/forestry](http://www.dnr.state.mn.us/forestry)
- Mississippi Forestry Commission: [www.mfc.ms.gov](http://www.mfc.ms.gov)
- Missouri Department of Conservation: [www.mdc.mo.gov](http://www.mdc.mo.gov)
- Montana Department of Natural Resources & Conservation Forestry Division: <http://dnrc.mt.gov/divisions/forestry>
- Nebraska Forest Service: [www.nfs.unl.edu](http://www.nfs.unl.edu)
- Nevada Division of Forestry: [www.forestry.nv.gov](http://www.forestry.nv.gov)
- New Hampshire Division of Forests and Lands: [www.nhdf.org](http://www.nhdf.org)
- New Jersey State Forest Service: [www.forestry.nj.gov](http://www.forestry.nj.gov)
- New Mexico State Forestry Division: [www.emnrd.state.nm.us/SFD](http://www.emnrd.state.nm.us/SFD)
- New York State Department of Environmental Conservation: [www.dec.ny.gov/lands/309.html](http://www.dec.ny.gov/lands/309.html)
- North Carolina Forest Service: [www.ncforestservice.gov](http://www.ncforestservice.gov)
- North Dakota Forest Service: [www.ndsu.edu/ndfs](http://www.ndsu.edu/ndfs)
- Ohio Division of Natural Resources, Division of Forestry: [forestry.ohiodnr.gov](http://forestry.ohiodnr.gov)
- Oklahoma Forestry Services: [www.forestry.ok.gov](http://www.forestry.ok.gov)
- Oregon Department of Forestry: [www.oregon.gov/ODF](http://www.oregon.gov/ODF)
- Pennsylvania Bureau of Forestry: [www.dcnr.state.pa.us/forestry](http://www.dcnr.state.pa.us/forestry)
- Rhode Island Division of Forest Environment: <http://www.dem.ri.gov/programs/forestry/>
- South Carolina Forestry Commission: [www.state.sc.us/forest/](http://www.state.sc.us/forest/)
- South Dakota Department of Agriculture, Conservation & Forestry: <https://sdda.sd.gov/conservation-forestry>
- Tennessee Department of Agriculture, Division of Forestry: [www.tn.gov/agriculture/forestry](http://www.tn.gov/agriculture/forestry)
- Texas A&M Forest Service: <http://txforestservice.tamu.edu>
- Utah Department of Natural Resources, Division of Forestry, Fire, and State Lands: [www.ffsl.utah.gov](http://www.ffsl.utah.gov)
- Vermont Department of Forests, Parks, and Recreation: [www.vtfpr.org](http://www.vtfpr.org)
- Virginia Department of Forestry: [www.dof.virginia.gov](http://www.dof.virginia.gov)
- Washington State Department of Natural Resources, Forestry Division: <http://www.dnr.wa.gov/page/forest-resources-0>
- West Virginia Division of Forestry: [www.wvforestry.com](http://www.wvforestry.com)
- Wisconsin Department of Natural Resources, Division of Forestry: <http://dnr.wi.gov/topic/forestry.html>
- Wyoming State Forestry Division: [www.wsfd.wyo.gov](http://www.wsfd.wyo.gov)

## Territories and the District of Columbia

- American Samoa Community College, Division of Community and Natural Resources: <http://www.amsamoa.edu/institution/cnr.html>
- District of Columbia Urban Forestry Administration: [www.ddot.dc.gov/page/ddot-urban-forestry-administration-ufa](http://www.ddot.dc.gov/page/ddot-urban-forestry-administration-ufa)
- Federated States of Micronesia Department of Resources & Development: <http://www.fsmgov.org/index.html>
- Guam Department of Agriculture Forestry & Soil Resources Division: <http://www.forestationplans.org/states/guam>
- Commonwealth of the Northern Mariana Islands Department of Lands & Natural Resources: <http://www.cnmiforestry.com/>
- Republic of Palau Bureau of Agriculture, Forestry Section: [www.palau.gov/executive-branch/ministries/natural-resources](http://www.palau.gov/executive-branch/ministries/natural-resources)
- Commonwealth of Puerto Rico Department of Natural and Environmental Resources: [www.drna.gobierno.pr](http://www.drna.gobierno.pr)
- Republic of the Marshall Islands Ministry of Resources & Development: <http://www.forestationplans.org/states/republic-of-the-marshall-islands>
- Virgin Islands' Department of Agriculture: [www.vifresh.com/forestry.php](http://www.vifresh.com/forestry.php)