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Wildfire Suppression Spending: Background, Issues, and Legislation

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February 9, 2017

Congressional Research Service
7-....
www.crs.gov
R44082

Summary

Congress has directed that the federal government is responsible for managing wildfires that begin on federal lands, such as national forests or national parks. The states are responsible for managing wildfires that originate on all other lands. Although a greater number of wildfires occur annually on nonfederal lands, wildfires on federal lands tend to be much larger, particularly in the western United States. The federal government's wildfire management responsibilities—fulfilled primarily by the Forest Service (FS) and the Department of the Interior (DOI)—include prevention, detection, response, and recovery. The Federal Emergency Management Agency (FEMA) also may provide disaster relief for certain nonfederal wildfires.

Congress provides appropriations for wildfire management to both FS and DOI. Within these appropriations, suppression operations are largely funded through two accounts for each agency: Wildland Fire Management (WFM) accounts and Federal Land Assistance, Management, and Enhancement Act (FLAME) reserve accounts. If the suppression funding in both of these accounts is exhausted during any given fiscal year, FS and DOI are authorized to transfer funds from their other accounts to pay for suppression activities. Congress also may provide additional funds for suppression activities through emergency or supplemental appropriations. Thus, for any given year, total suppression appropriations to FS or DOI may be a combination of several sources: the WFM account, the FLAME account, additional funding as needed through transfers, and/or supplemental appropriations.

Overall appropriations to FS and DOI for wildland fire management have quadrupled since the 1990s, going from $1.2 billion in FY1994 to $4.9 billion in FY2016 in constant dollars. A significant portion of that increase is related to rising suppression costs, even during years of relatively mild wildfire activity, although the costs vary annually and are difficult to predict in advance. Since FY2001, FS and DOI have required more suppression funds than have been appropriated to them in all but three years. This discrepancy often leads the agencies to transfer funds from other accounts, prompting concerns that increasing suppression spending may be detrimental to other agency programs. In response, Congress has enacted supplemental appropriations to repay the transferred funds or to replenish the agency's wildfire accounts 12 times, including $700 million provided as emergency spending in FY2016 to repay suppression costs from FY2015. Furthermore, wildfire spending—like all discretionary spending—is currently subject to procedural and budgetary controls. In the past, Congress has effectively waived some of these controls for certain wildfire spending, but it has not done so in more recent years. This situation has prompted some to explore providing wildfire spending outside of those constraints.

The 115th Congress may consider legislation to address these issues. The 114th Congress considered—but did not enact—several wildfire spending bills that may be of interest. All of these bills, directly or indirectly, would have allowed for some wildfire suppression funds—subject to certain criteria—to be provided outside the statutory limits on discretionary spending, either through the annual appropriations process or through supplemental appropriations. Under those proposals, varying levels of wildfire funding would not have needed to compete with other programs and activities that are subject to the statutory limits. However, the amounts that could have been provided for wildfire suppression operations under these proposals—both within and outside of the spending limits—would have been subject to future appropriations decisions by Congress. These proposals also could have affected certain funding mechanisms that have been used to provide additional spending for major disaster recovery (e.g., hurricanes, earthquakes).

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Funding for federal wildfire management—particularly for suppression operations on federal lands—raises several interrelated policy questions for Congress to consider. These questions include how much funding Congress should provide for suppression purposes, an activity whose costs are generally rising but vary annually and are difficult to predict. The federal agencies tasked with suppression activities may deplete their suppression resources rapidly, so Congress also may consider if, and how, to provide these agencies with quick access to additional funds to enable continued federal services in response to wildfires. In addition, Congress may address questions related to the source of the suppression funds, such as if rising suppression costs should be offset by cuts to other agency programs, or if those costs should be considered outside of certain budgetary and procedural constraints. Furthermore, Congress may consider options to enact budgetary controls on suppression spending or other methods to constrain rising federal costs.

This report provides background information and analysis of federal funding for wildfire suppression operations. The report provides a discussion of the issues facing Congress and concludes by summarizing several legislative proposals considered by the 114th Congress.

Wildfire Background

The term *wildfire* is defined as an unplanned, unwanted wildland fire, including lightning-caused fires, unauthorized human-caused fires, and escaped prescribed fire projects.[1] States are responsible for responding to wildfires that begin on nonfederal (state, local, and private) lands, except for lands protected by the federal agencies under cooperative agreements. The federal government is responsible for responding to wildfires that begin on federal lands. The Forest Service (FS)—within the U.S. Department of Agriculture (USDA)—carries out wildfire management and response across the 193 million acres of the National Forest System. The Department of the Interior (DOI) manages the wildfire response for more than 400 million acres of national parks, wildlife refuges and preserves, Indian reservations, and other public lands.[2]

The term *wildfire suppression* covers all of the work associated with extinguishing or confining a wildfire. Federal policy is generally to suppress wildfires unless a fire management plan identifies locations and conditions when monitoring or fewer suppression efforts are appropriate.[3] The primary federal responsibility for wildfire suppression is to protect lives, property, and resources on federal lands. The federal government has other wildland fire management responsibilities that include programs to prevent the future risk of catastrophic fires, such as by reducing the accumulation of hazardous fuels. The federal government also provides technical and financial assistance to states, local governments, and communities to protect nonfederal (both government and private) lands from wildfire damages. The federal government—primarily through the Federal Emergency Management Agency (FEMA)—may provide disaster relief to state and local governments. FEMA also may provide assistance to individuals and households if a major disaster declaration is issued as a result of the wildfire.[4]

[1] National Wildfire Coordinating Group (NWCG), "Glossary of Wildland Fire Terminology," October 2015, at http://www.nwcg.gov/glossary-of-wildland-fire-terminology. For a more comprehensive discussion on wildland fire management, see CRS Report RL30755, *Forest Fire/Wildfire Protection*, by (name redacted)

[2] Other federal agencies—such as the Department of Defense—are responsible for wildfire response on their lands. This report focuses on Forest Service and Department of the Interior wildfire management responsibilities.

[3] National Interagency Fire Center (NIFC), Fire Executive Council, *Guidance for Implementation of Federal Wildland Fire Policy*, February 13, 2009, p. 10, at http://www.nifc.gov/policies/policies_main.html.

[4] For more information, see "Federal Assistance for Nonfederal Wildfires" in this report, and CRS Report R43738, *Fire*
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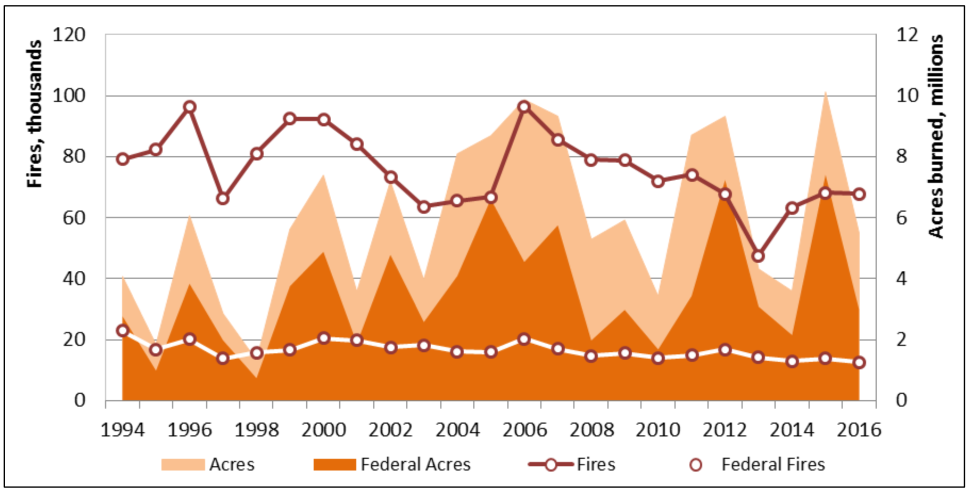
Wildfire Statistics[5]

Since 2001, an average of 72,112 wildfires have burned an average of 6.7 million acres every year, including both federal and nonfederal lands.[6] This figure is almost double the average annual acreage burned in the late 1990s (3.6 million acres), although a greater number of fires occurred annually (83,000 wildfires on average) in that period (see **Figure 1**). Over the past 10 years, from 2007 to 2016, nearly 6.6 million acres burned annually on average. In 2016, nearly 68,000 fires burned 5.5 million acres, below the 10-year average and a significant decrease from 2015.[7] In 2015, just over 68,000 wildfires burned 10.1 million acres, the largest acreage burned on record and more than the previous two years combined (3.6 million acres burned in 2014 and 4.3 million acres burned in 2013). More than half of the acres burned in 2015 were in Alaska (5.1 million acres), which is more than the total acreage burned in that state over the previous five years.[8] Of the wildfires in 2016, 1.8% (1,251) were classified as "large or significant" and 19 wildfires exceeded 40,000 acres in size.[9] In 2015, there were fewer "large or significant" fires in total than in 2016 (1,052), but there were more wildfires that burned over 40,000 acres (52).[10]

Figure 1. Annual Trends in Wildfires and Acres Burned, 1994-2016



Source: CRS based on data from the National Interagency Fire Center (NIFC).

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Management Assistance Grants: Frequently Asked Questions, coordinated by (name redacted) .

[5] For more information, see CRS In Focus IF10244, *Wildfire Statistics*, by (name redacted)

[6] NIFC, "Wildland Fire Statistics," at http://www.nifc.gov/fireInfo/fireInfo_statistics.html.

[7] NIFC National Interagency Coordination Center (NICC), *Wildland Fire Summary and Statistics, 2016*, at http://www.predictiveservices.nifc.gov/intelligence/2016_Statssumm/2016Stats&Summ.html. These figures reflect only the data reported to NICC and may not capture all data related to nonfederal wildfires.

[8] A total of 3.3 million acres burned in Alaska in the five-year period from 2010 through 2014. Over the past 10 years, acreage burned in Alaska has exceeded 1 million acres four times: 2009 (3.0 million acres), 2010 (1.1 million acres), 2013 (1.3 million acres), and 2015 (5.1 million acres).

[9] "Large or significant" wildfires are defined as larger than 100 acres in timber fuel types, 300 acres in grass or brush fuel types, or requiring a national-level response team (Type 1 or Type 2 Interagency Incident Management Team, Wildland Fire Module Team, or National Incident Management Organization Team). Source: NWCG, *Glossary of Wildland Fire Terminology*, October 2015.

[10] NIFC NICC, *Wildland Fire Summary and Statistics, 2015*, at http://www.predictiveservices.nifc.gov/intelligence/2015_Statssumm/2015Stats&Summ.html.

Notes: Data reflect wildland fires and acres burned nationwide, including wildland fires on federal and nonfederal lands.

In 2016, 54% of the nationwide acreage burned by wildfires was on federal lands (3.0 million acres; see **Table 1**). The other 46% of the acreage burned occurred on state, local, or privately owned lands but also accounted for most (82%) of the fires (55,193 wildfires). On average, from 2007 to 2016, 67% of the total acreage burned was on federal lands, whereas 77% of the fires occurred on nonfederal lands. These figures reflect that the fires that occur on federal land are larger in size, although fewer in number, compared with those on nonfederal land. This is particularly true in the West,[11] where less than one-third of the fires burned 60% of the acreage on federal lands compared to nonfederal lands in 2016. In the East, however, where there is less federal acreage, most of the fires and acreage burned occurred on nonfederal lands.

Table 1. 2016 Wildfires and Acres Burned by Landowner and Region

Land Ownership	Fires	Acres Burned
Federal	**12,550**	**2,995,095**
Eastern States	3,949	485,291
Western States	8,601	2,509,805
Nonfederal	**55,193**	**2,514,899**
Eastern States	43,716	1,728,361
Western States	11,477	786,538
Total, Eastern States	*47,665*	*2,213,652*
Total, Western States	*20,078*	*3,296,343*
TOTAL	**67,743**	**5,509,995**

Source: CRS. Data compiled from NIFC, State and Agency Fires and Acres reports, at http://www.nifc.gov/fireInfo/fireInfo_statistics.html.

Notes: Western states are Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming. Eastern states are all other states and include Puerto Rico.

Although the number of fires and acreage burned are indicators of the annual level of wildfire activity, they also may be misleading, since many fires may occur in areas that are large and relatively undeveloped, with very little impact to human development or communities. Acreage burned also does not indicate the severity of the wildfire or the degree of damage caused to the ecosystem. Thus, other indicators of wildfire activity also are considered in conjunction with acreage burned, such as the intensity and severity of each wildfire,[12] the cumulative number of severe wildfires in a year, or the number of days spent at the highest national preparedness levels. The National Fire Preparedness Levels (PLs) are indicative of the level of nationwide mobilization of resources, with higher numbers indicating higher levels of response.[13] Over the past 10 years (2007-2016), the PL was at the highest level (PL5) for nine days on average

[11] In this case, the West is defined to include Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming.

[12] Fire severity is the degree to which a site has been altered or disrupted by a fire, generally a product of fire intensity and residence time. NWCG, *Glossary of Wildland Fire Terminology*, at http://www.nwcg.gov/glossary/a-z.

[13] *Preparedness level* is defined as “increments of planning and organizational readiness dictated by burning conditions, fire activity, and resource conditions.” NWCG, *Glossary of Wildland Fire Terminology*, October 2015.

annually, although PL5 was not reached in half of those years.[14] In 2016, 14 days were spent at PL4 and zero days were spent at PL5.[15]

Wildland-Urban Interface

The area where structures (usually homes) are intermingled with—or adjacent to—vegetated wildlands (forests or rangelands) is called the wildland-urban interface (WUI).[16] The proximity to vegetated landscapes puts these areas at a potential risk of experiencing wildfires and associated damage. More than one-third of all housing developments in the United States are now located within the WUI.[17] In the West, nearly 900,000 homes are estimated to be at very high or high risk of wildfire damage.[18] While attention has focused on protecting life, property, and communities in the WUI, opinions vary over if and how much the federal government should pay to protect those resources.

U.S. federal wildland fire guidance directs that the response to wildfire is to prioritize the safety of the firefighters first, then the ecological, social, and legal consequences of the fire.[19] The guidance further states that the cost of federal response to wildfire should be commensurate with the values to be protected (human, natural, historical, or cultural), but economic efficiency is not necessarily required. Response priorities include managing costs but without compromising safety.[20] While some believe this policy allows the federal land management agencies flexibility to provide a high-quality emergency response, others believe this is akin to a "blank check" policy and has removed any incentive for the agencies to control suppression costs.[21]

Federal wildfire suppression spending is influenced by several factors, including the size and intensity of the fire and the proximity of the fire to valuable resources.[22] These resources require protection, which often increases firefighter risks as well as suppression costs as more personnel or assets are deployed to provide protection.[23] Federal suppression costs—daily, overall, and on a per-acre basis—become higher as the number and value of homes near a fire increase.[24]

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[14] Over the 10-year period between 2007 and 2016, PL5 was not reached in five years: 2009-2012, 2014, and 2016; PL4 was not reached in 2009 and 2010; and PL3 was not reached in 2010.

[15] In 2015, 24 days were spent at PL5, the longest period since 2007 (39 days).

[16] V. C. Radeloff et al., "The Wildland-Urban Interface in the United States," *Ecological Applications*, vol. 15, no. 3 (2005), pp. 799-805. For more information on the WUI, see CRS Report RS21880, *Wildfire Protection in the Wildland-Urban Interface*, by (name redacted) and (name redacted)

[17] Forest Service, *Wildfire, Wildlands, and People: Understanding and Preparing for Wildfire in the Wildland-Urban Interface*, GTR-299, January 2013.

[18] CoreLogic, Inc, *Wildfire Hazard Risk Report*, 2015.

[19] NIFC, *Guidance*, p. 11.

[20] NIFC, National Multi-Agency Coordinating Group, *NMAC National Strategy*, 2013, at http://www.nifc.gov/nicc/administrative/nmac/index.html.

[21] See for example, National Academy of Public Administration (NAPA), *Wildfire Suppression: Strategies for Containing Costs*, September 2002; Dean Lueck, "Economics and the Organization of Wildfire Suppression," in *Wildfire Policy: Law and Economics Perspectives*, ed. Karen M. Bradshaw and Dean Lueck (New York: RFF Press, 2012); Randal O'Toole, *Reforming the Fire Service: An Analysis of Federal Fire Budgets and Incentives*, Thoreau Institute, July 2002; and Timothy Ingalsbee, *Getting Burned: A Taxpayer's Guide to Wildfire Suppression Costs*, Firefighters United for Safety, Ethics, & Ecology, August 2010.

[22] J. Liang et al., "Factors influencing Large Wildland Fire Suppression Expenditures," *International Journal of Wildland Fire*, vol. 17 (2008), pp. 650-659.

[23] USDA Office of Inspector General (OIG), *Audit Report: Forest Service Large Fire Suppression Costs*, Report No. 08601-44-SF, 2006. Hereinafter referred to as USDA OIG 2006.

[24] P. H. Gude et al., "Evidence for the Effect of Homes on Wildfire Suppression Costs," *International Journal of*
(continued...)

When wildfire expenditures began to increase in the 2000s, many were concerned that the federal government was bearing too much of the cost of wildfires and that state, local, and private landowners lacked incentive to mitigate future fire risk to offset suppression costs.[25] The agencies have since modified their cost-share agreements with many of the states to provide more consistent arrangements, although these still may vary by state and by fire.[26] The agencies, particularly FS, also have initiated several technical and financial assistance programs to increase WUI community preparedness and homeowner protections. A 2006 USDA Office of Inspector General (OIG) report asked Congress to clarify the federal government's role in protecting WUI developments.[27] However, the debate in more recent years seemingly has focused less on the federal share of rising suppression costs and more on other fiscal concerns, such as budgetary constraints on discretionary spending.

Federal Assistance for Nonfederal Wildfires

The federal government provides assistance to states, local governments, and private landowners for wildfires that begin on nonfederal lands. This assistance may come in several forms, including technical and financial assistance programs to mitigate the risk of future wildfire and direct response services under cooperative agreements. These cooperative fire protection agreements authorize federal and state partners to share resources—such as aviation equipment and personnel—depending on ongoing need during a wildfire season, allowing for a coordinated interagency response that deploys resources to areas of greatest critical need. The cost of these resources is then reimbursed as specified in the master agreement, which often lists several different methods to apportion costs, each with different financial impacts. This may include assigning the cost based on the proportion of acres burned within each agency's jurisdiction or on resources deployed, among others.[28] The National Interagency Coordination Center, located at the National Interagency Fire Center (NIFC), coordinates and allocates resources at a national level, and Geographic Area Coordination Centers coordinate and allocate resources at nine regional levels.[29]

Cooperative fire protection and financial and technical assistance programs are provided by the federal land management agencies—such as FS and DOI—but FEMA also may provide assistance to states, communities, and individuals during or after a wildfire.

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Wildland Fire, vol. 22, no. 4 (2013), pp. 537-548; K. M. Gebert, D.E. Calkin, and J. Yoder, "Estimating Suppression Expenditures for Individual Large Wildland Fires," *Western Journal of Applied Forestry*, vol. 22, no. 3 (2007), pp. 188-196.

[25] U.S. Government Accountability Office (GAO), *Wildland Fire Suppression: Lack of Clear Guidance Raises Concerns about Cost Sharing between Federal and Nonfederal Entities*, GAO-06-570, May 2006; USDA OIG 2006; NAPA, *Wildfire Suppression*; O'Toole, *Reforming the Fire Service*; Ingalsbee, *Getting Burned*; and Headwaters Economics, *Solutions to the Rising Costs of Firefighting in the Wildland-Urban Interface*, September 2009.

[26] GAO, *Wildland Fire Management: Lack of Clear Goals or a Strategy Hinders Federal Agencies' Efforts to Contain Costs*, GAO-07-655, June 1, 2007.

[27] USDA OIG 2006.

[28] GAO-06-570.

[29] For more information, see the National Interagency Coordination Center website at http://www.nifc.gov/nicc/ and the Geographic Area Coordination Centers website at http://gacc.nifc.gov/.

Disaster Declarations

The term *fire* is included as an eligible event under the "Definitions" section of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act).[30] A query of FEMA's declarations database for "wildfire" yields 27 major disaster declarations over a 60-year period (1953-2014)[31]—a small subset, given that there have been more than 2,200 major disaster declarations during that same period. This is partly because many wildfires begin on federal lands, which makes them ineligible for Stafford Act assistance until they impact state, local, and private lands. There are, however, several types of declarations that provide assistance under the Stafford Act when the fires threaten state and private lands.

In the event that a wildfire originated on state lands and a threat of several types of damage exists (e.g., to state and county infrastructure as well as private homes), a major disaster may be declared by the President if the governor of the affected state requests such assistance. Similarly, a governor could request an emergency declaration to address the threat before it warrants a major disaster declaration.[32] However, the most frequently employed authority for fighting wildfires under the Stafford Act is Section 420, which is specifically for "Fire Management Assistance."[33] This authority results more frequently in the grants that are discussed below.

Fire Management Assistance Grants

Section 420 of the Stafford Act authorizes the President to "declare" a Fire Management Assistance Grant (FMAG), which authorizes financial assistance to the requesting state.[34] A state must request an FMAG when the governor determines that a fire is burning out of control and threatens to become a major disaster. Typically, governors submit requests to the FEMA regional administrators. Requests can be submitted any time—day or night—and can be submitted verbally by telephone to expedite the process.

Once issued, the FMAG declaration authorizes various forms of federal assistance—such as equipment, personnel, and grants to state, local, and tribal governments—for the control, management, and mitigation of any fire on certain public or private forest land or grassland that might become a major disaster. The grants may reimburse up to 75% of the allowable suppression costs for eligible fires. It should be noted that FMAG declarations, unlike some major disaster declarations, do not authorize assistance to individuals and households.

As shown in **Figure 2**, the number of FMAG declarations has increased in recent years, reaching a high of 114 in 2011. This number surpassed the previous high of 86 FMAGs in 2006. As mentioned previously, FMAGs are designed to prevent fires from becoming major disasters. It could be argued that even though the cost for FMAG declarations may have increased, FMAGs may actually save federal dollars by reducing the need for a major disaster declaration, thus reducing overall spending on Stafford Act programs.

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[30] 42 U.S.C. §5122(2). For more information on declarations, see CRS Report R43784, *FEMA's Disaster Declaration Process: A Primer*, by (name redacted) ; and CRS Report R42702, *Stafford Act Declarations 1953-2015: Trends, Analyses, and Implications for Congress*, by (name redacted) and (name redacted) .

[31] See http://www.fema.gov/disasters.

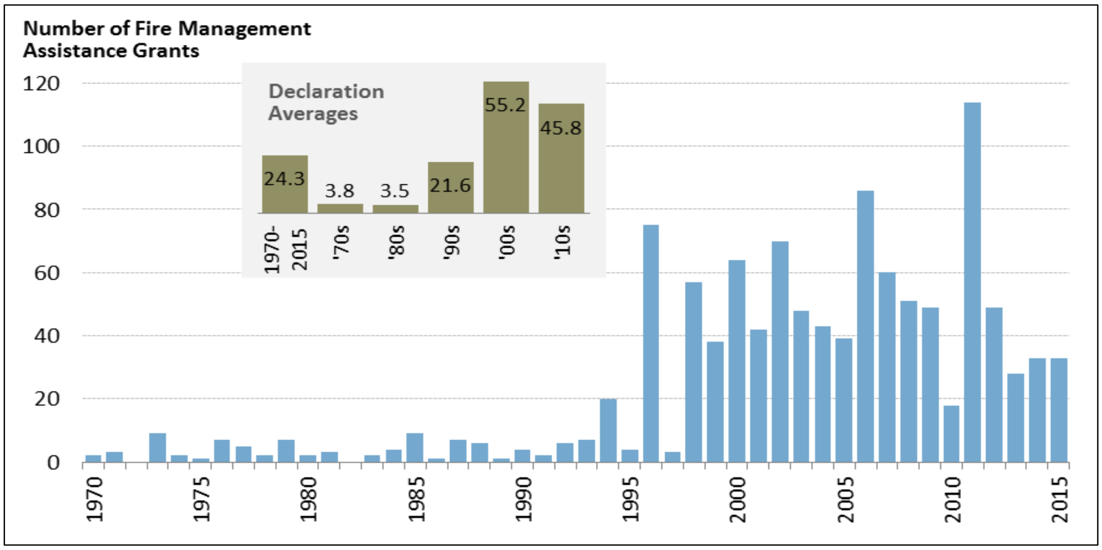
[32] 42 U.S.C. §5191.

[33] 42 U.S.C. §5187.

[34] For more information, see CRS Report R43738, *Fire Management Assistance Grants: Frequently Asked Questions*, coordinated by (name redacted) .

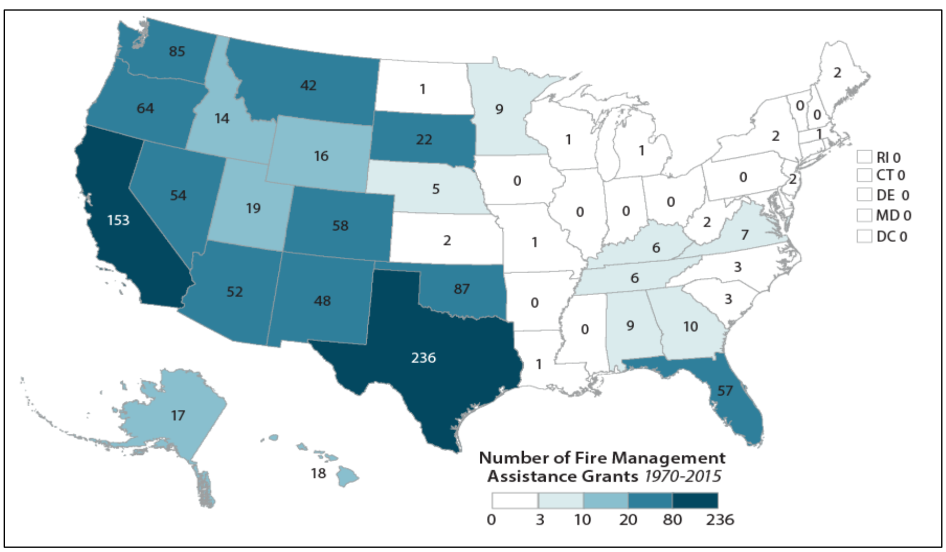
The first FMAG was declared in 1970, and they were rarely issued until the 1990s (see **Figure 2**). The average number of FMAGs declared in the 1970s and the 1980s was about three per year. During the 1990s, there were about 22 FMAG declarations per year (**Figure 3**). This upward trend continued into the 2000s, with an average of 55 FMAG declarations issued each year on average from 2000 to 2015. Texas has received the most FMAGs (236 declarations), followed by California (153), Oklahoma (87), and Washington (85) (see **Figure 3**).[35]

Figure 2. Fire Management Assistance Grants, 1970-2015



Source: CRS analysis is based on data from U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA), Disaster Declarations, at https://www.fema.gov/disasters. 2016 data were not available at the time of publication.

Figure 3. Fire Management Assistance Grants by State, 1973-2015



Source: CRS analysis based on data from U.S. Department of Homeland Security, FEMA, Disaster Declarations, available at https://www.fema.gov/disasters.

[35] FEMA was unable to provide data on Fire Management Assistance Grant (FMAG) request denials.

Notes: 2016 data were not available at the time of publication. One Fire Management Assistance Grant was declared in Guam in 1998.

Disaster Relief Fund

Funds from the Disaster Relief Fund (DRF), an account in Department of Homeland Security appropriations acts, are used to pay for ongoing recovery projects from disasters occurring in previous fiscal years, to meet current emergency requirements, and to serve as a reserve to pay for upcoming incidents. The DRF is funded annually and is a "no-year" account, meaning that unused funds from the previous fiscal year (if available) are carried over to the next fiscal year. In general, when the balance of the DRF becomes low, Congress provides additional funding through both annual and supplemental appropriations to replenish the account.[36]

In addition to major disasters, the DRF provides funding for emergency declarations and FMAGs as well as some administrative costs. This portion of the DRF is described in the Budget Control Act of 2011 (BCA; P.L. 112-25) as the "base/non-major disasters." The President's request for base/non-major disasters each fiscal year is based on a 10-year average for non-catastrophic events, whereas the request for major disasters is based on FEMA's spending plans for all past declared major disasters.

Wildfire Management Appropriations

As stated earlier, funding for federal wildfire management is provided to both FS and DOI. Funding for DOI is provided to the department, which then allocates the funding to the Office of Wildland Fire and four agencies—the Bureau of Land Management (BLM), the Bureau of Indian Affairs, the National Park Service, and the U.S. Fish and Wildlife Service.[37]

Both DOI and FS receive annual discretionary appropriations through the Interior, Environment, and Related Agencies appropriations bill.[38] Each agency has two accounts for wildfire: a Wildland Fire Management (WFM) account and a Federal Land Assistance, Management, and Enhancement Act (FLAME)[39] account. The FLAME account is a reserve fund for wildfire suppression that requires certain conditions be met in order to transfer funding from the FLAME account to the WFM account. Each agency's WFM appropriation is distributed among two subaccounts: *fire operations* and *other fire operations*. The *fire operations* subaccount receives the bulk of the WFM appropriation and funds two programs: preparedness and suppression. Appropriations for preparedness are used to support efforts that assist with fire prevention and detection, equipment, training, and baseline personnel. Suppression appropriations are primarily used for wildfire response. The *other fire operations* subaccount funds hazardous fuels reduction and fire assistance programs, as well as other activities that are more focused on decreasing the risk of future catastrophic wildfires.

Appropriations for wildfire management have more than tripled over the past two decades in terms of FY2016 dollars (see **Figure 4**), although the trend has fluctuated annually. From FY1994 to FY2000, annual appropriations averaged $1.6 billion; since FY2001, annual appropriations

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[36] See CRS Report R43537, *FEMA's Disaster Relief Fund: Overview and Selected Issues*, by (name redacted) .

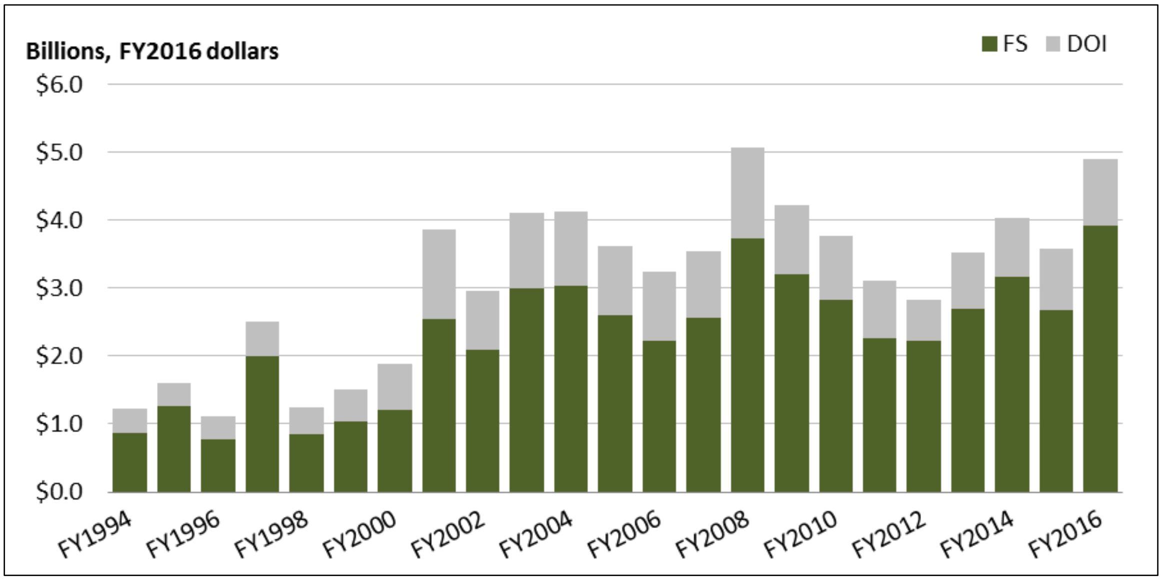
[37] Wildfire appropriations to DOI used to go directly to BLM and were then allocated among the other bureaus, but since 2009 appropriations have gone to the DOI department-level Office of Wildland Fire for allocation.

[38] For background information on the wildland fire accounts and appropriations data for DOI and FS, see CRS Report R43077, *Wildfire Management Appropriations: Data, Trends, and Issues*, by (name redacted) and (name redacted)

[39] P.L. 111-88, Division A, Title V (43 U.S.C. §1748a).

have averaged $3.7 billion. Since FY2001, total annual wildfire appropriations have varied from a low of $2.8 billion in FY2012 to a high of $5.0 billion in FY2008, the largest appropriation to date. After FY2012, annual appropriations increased in both FY2013 ($3.5 billion) and FY2014 ($4.0 billion) but decreased in FY2015 ($3.5 billion). The FY2016 FS and DOI appropriation of $4.9 billion was the second-largest appropriation to date.

Figure 4. FS and DOI Total Wildfire Management Appropriations, FY1994-FY2016



Source: CRS. Data compiled from detailed funding tables prepared by the House Committee on Appropriations.

Notes: Total wildfire management appropriations include appropriations to the Wildland Fire Management (WFM) account, the accounts established by the Federal Land Assistance, Management, and Enhancement Act (FLAME), and any additional or supplemental appropriations enacted for wildfire purposes to both FS and DOI. FS data also include appropriations to other agency accounts that are specified for wildfire purposes. Figures adjusted to FY2016 dollars using the annual GDP deflator price index reported by the U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Products Accounts Tables, Table 1.1.9.

The rising cost of wildfire management, combined with annual spending fluctuations, makes budgeting for future wildfire spending difficult. Much of the increases, fluctuations, and unpredictability are driven by suppression costs. Analyzing wildfire funding trends over time—particularly prior to FY2001—is challenging for many reasons. The agency's account structures have changed, with different activities funded through different programs in different years. Additional accounts and programs have been created. A further complication is that often the costs for one wildfire season (using a calendar year) are covered over two fiscal years; sometimes appropriations are enacted in one fiscal year to cover costs incurred in previous fiscal years.

Suppression Appropriations

Suppression appropriations are used to fund the control of wildland fires that originate on federal land, as well as wildland fires that originate on nonfederal lands and are under fire protection agreements. Suppression operations fund firefighter salaries, aviation asset operations, incident support functions, and personnel and resources for post-wildfire response programs.[40]

[40] Appropriations to the Preparedness and Suppression programs are fungible, meaning the funds are interchangeable. (continued...)

Table 2. FS and DOI Wildland Fire Management (WFM) Appropriations, FY2012-FY2016

(millions of nominal dollars)

	FY2012	FY2013	FY2014	FY2015	FY2016
Forest Service (FS)					
Total Suppression Appropriations	$853.6	$1,188.8	$1,595.5	$1,011.1	$2,334.0
WFM Suppression[a]	$538.2	$510.0	$680.5	$708.0	$811.0
FLAME	$315.4	$299.0	$315.0	$303.1	$823.0
Additional Appropriations	—	$379.9	$600.0	—	$700.0
WFM Other Than Suppression[b]	$1,233.8	$1,391.0	$1,481.8	$1,625.3	$1,575.3
Total FS Wildfire Appropriations	$2,087.4	$2,579.8	$3,077.3	$2,636.4	$3,909.3
FS Appropriations Other Than Wildfire	$2,506.9	$2,344.9	$2,402.3	$2,420.0	$2,455.0
Total FS Appropriations	$4,594.3	$4,936.7	$5,479.6	$5,056.2	$6,364.3
% Wildfire Appropriations	45%	52%	56%	52%	61%
Department of the Interior (DOI)					
Total Suppression Appropriations	$362.3	$375.9	$413.9	$383.7	$468.7
WFM Suppression	$270.5	$261.2	$285.9	$291.7	$291.7
FLAME	$91.9	$91.7	$92.0	$92.0	$177.0
Additional Appropriations	NA	$23.0	$36.0	NA	NA
WFM Other Than Suppression	$213.1	$418.8	$447.6	$513.1	$525.1
Total DOI Wildfire Appropriations	$575.4	$794.7	$861.5	$896.8	$993.7
DOI Approp. Other Than Wildfire	$9,452.8	$9,890.1	$9,605.5	$10,194.1	$11,022.7
Total DOI Appropriations	$10,299.8	$10,692.3	$10,474.5	$11,090.9	$12,016.4

Source: CRS. Data compiled from detailed funding tables prepared by the House Committee on Appropriations.

Notes: Totals may not add due to rounding. FY2013 reflects post-sequester appropriations. Additional Appropriations (for FS and DOI) includes any appropriations enacted for suppression purposes and titled as "supplemental," "additional," or "emergency" in the tables prepared by the House Committee on Appropriations. For prior years, total Wildfire Appropriations (for FS and DOI) reflect final wildfire appropriations for WFM, FLAME, additional appropriations, rescissions, use of emergency funds, use of prior year funds, and any funds provided for wildfire activities in other accounts. From FY2012 to FY2016, wildfire appropriations accounted for 8% of DOI's total annual appropriation, on average.

a. Prior to FY2012, certain expenditures related to aviation assets and personnel costs were funded through the Suppression program; starting in FY2012, those costs were funded through the Preparedness program.

b. This includes all appropriations to the FS WFM account, excluding funds appropriated to the Suppression program. Funds provided for wildfire purposes but appropriated to the Forest Service State and Private Forestry (SPF) account are also included in the FS WFM total, for those years when appropriations were provided under the SPF account. Prior to FY2014, appropriations for fire assistance activities were provided

(...continued)

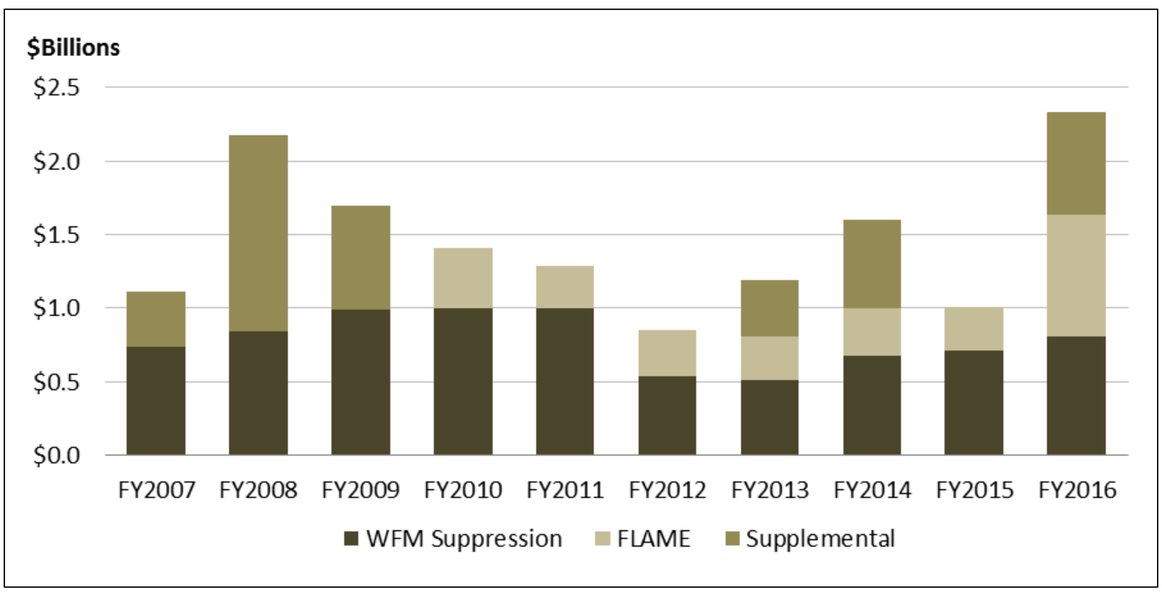
For example, maintenance and storage for aviation assets may be funded through the preparedness activity until activated for wildfire response, at which point suppression funds will cover operation expenses.

to both the SPF account and the WFM account. Starting in FY2014, appropriations for fire assistance activities were provided only through the WFM account.

Within the overall appropriations for wildfire, suppression operations are appropriated through two accounts for both FS and DOI: the suppression activity within the respective WFM accounts, and the respective FLAME reserve accounts. These also are funded annually through the Interior Appropriations Act. If these suppression resources are exhausted during any given fiscal year, FS and DOI are authorized to transfer funds from their other accounts to pay for suppression activities. Congress also may fund suppression activities—including repaying borrowed funds from the previous fiscal year—through emergency or supplemental appropriations. (These processes and their impacts are discussed later in the report.) Thus, for any given year, appropriations to FS or DOI for suppression activities may be a combination of three sources: the WFM suppression account, the FLAME account, and supplemental appropriations (see **Table 2**); the agencies also have access to additional funds through the transfer authority. See **Figure 5** and **Figure 6** for a breakdown of FS and DOI suppression appropriations over the past 10 years, respectively.

Over the past five years, total FS suppression appropriations have averaged $1.40 billion per fiscal year, whereas total DOI suppression appropriations have averaged $401 million (see **Table 2**). Over the past 10 years, suppression activities, on average, have accounted for over half (53%) of the FS's overall wildfire appropriation and more than a quarter of the agency's total appropriation (27%, see **Figure 7**). Within DOI, wildfire appropriations—including suppression—are smaller and account for a significantly smaller portion of the overall DOI budget. Analyzing trends, however, is complicated because of certain structural changes made to the wildfire accounts within the past five years. These changes include the enactment of the FLAME account as well as FS moving certain aviation and personnel costs between the Suppression and Preparedness programs.

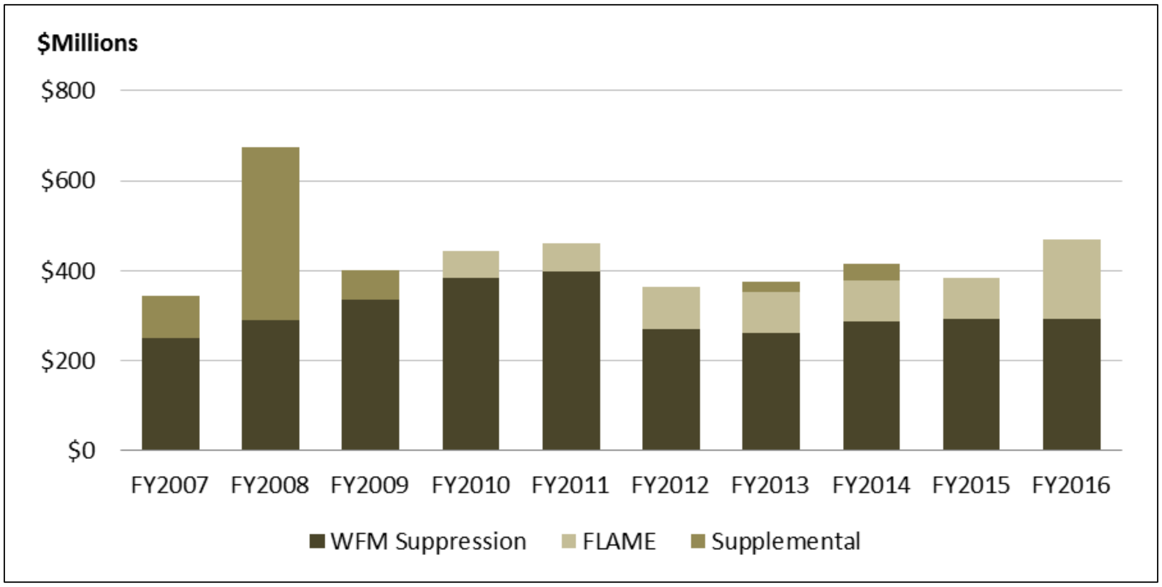
Figure 5. FS Suppression Appropriations, FY2007-FY2016



Source: CRS. Data compiled from detailed funding tables prepared by the House Committee on Appropriations.

Notes: "WFM Suppression" includes appropriations to the wildfire suppression activity within the FS's Wildland Fire Management (WFM) account. "FLAME" includes appropriations to the FLAME reserve account (established in FY2010). "Supplemental" includes any appropriation provided as an emergency or supplemental appropriation and specified for wildfire suppression purposes. Supplemental appropriations enacted for suppression purposes in any given fiscal year may have been specified for obligations incurred in the previous fiscal year, such as to repay funds borrowed from other accounts but used for suppression purposes.

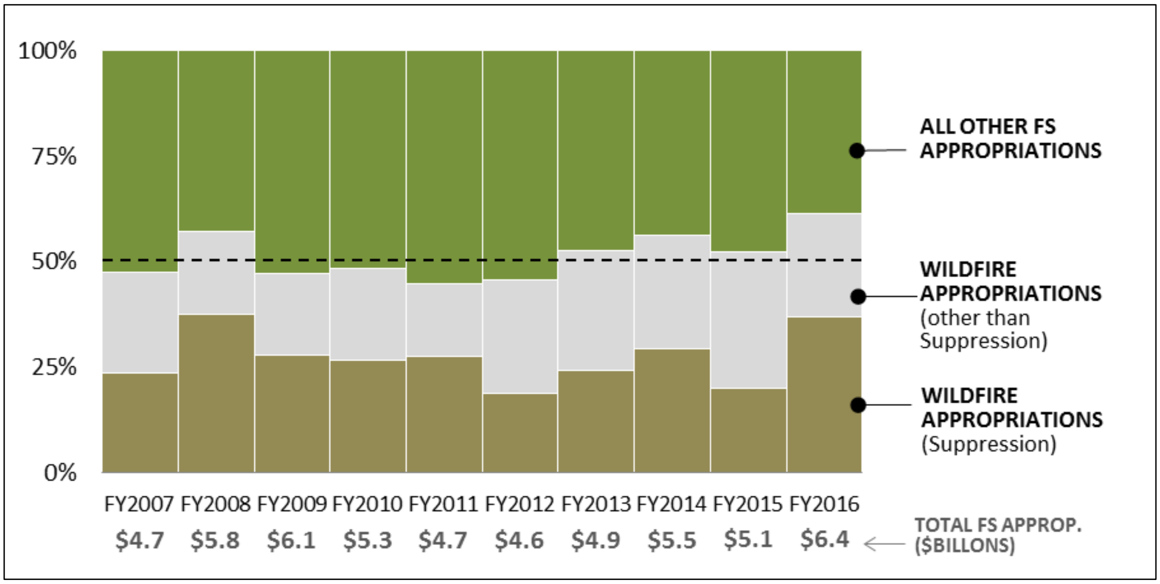
Figure 6. DOI Suppression Appropriations, FY2007-FY2016



Source: CRS. Data compiled from detailed funding tables prepared by the House Committee on Appropriations.

Notes: "WFM Suppression" includes appropriations to the wildfire suppression activity within the FS's Wildland Fire Management (WFM) account. "FLAME" includes appropriations to the FLAME reserve account (established in FY2010). "Supplemental" includes any appropriation provided as an emergency or supplemental appropriation and specified for wildfire suppression purposes. Supplemental appropriations enacted for suppression purposes in any given fiscal year may have been specified for obligations incurred in the previous fiscal year, such as to repay funds borrowed from other accounts but used for suppression purposes.

Figure 7. Distribution of FS Discretionary Appropriations, FY2007-FY2016



Source: CRS. Data compiled from detailed funding tables prepared by the House Committee on Appropriations.

Notes: "Wildfire appropriations (other than Suppression)" includes all appropriations to the FS WFM account, excluding funds appropriated to the Suppression program, and funds appropriated for wildfire purposes to other FS accounts. "Wildfire Appropriations (Suppression)" includes funds appropriated to the WFM Suppression program, the FLAME reserve account, and any emergency or supplemental appropriations provided for suppression activities. "All Other FS Appropriations" includes all other FS discretionary appropriations.

FLAME

Congress established a FLAME account—under the Federal Land Assistance, Management, and Enhancement Act of 2009[41]—for both FS and DOI in part to account for the growing cost of wildfire suppression.[42] The FLAME accounts provide a source of reserve funds used to cover the costs of large or complex fires or when amounts provided in their WFM suppression accounts are exhausted. Since the FLAME accounts were established in FY2010, the FS FLAME account has received an annual average of $394.1 million; the DOI FLAME account has received an annual average of $95.2 million (see **Table 2**). This represents about 34% of the combined (WFM and FLAME) appropriation for suppression activities for FS and 24% for DOI.

Both the Secretary of Agriculture and the Secretary of the Interior may transfer funds from their respective FLAME accounts into the respective WFM accounts for suppression activities upon a secretarial declaration.[43] The declaration may be issued if the fire covers at least 300 acres or threatens lives, property, or resources, among other criteria. Further, either Secretary may issue a declaration if his or her respective WFM suppression account is within 30 days of depletion. Any remaining FLAME funds may then be transferred into the WFM suppression account and used for wildfire response, regardless of the size or complexity of the fire. In 2015, both the Secretary

[41] Title V of Division A of the FY2010 Department of the Interior, Environment, and Related Agencies Appropriations Act, P.L. 111-88 (43 U.S.C. §§1748a et seq.).

[42] H.Rept. 111-316.

[43] 16 U.S.C. §1748a(e).

of the Interior and the Secretary of Agriculture declared FLAME funds available for all fires due to the exhaustion of their agencies' respective WFM accounts.[44]

The FLAME Act also prohibited fire borrowing—transferring funds from other accounts to cover suppression obligations—unless and until the FLAME account is exhausted. FS reports that until FY2016, its FLAME account had been exhausted every year since FY2011 (one year after the account was established) and that the agency transferred funds from other accounts in three of those six years: FY2012, FY2013, and FY2015 (see **Table 3**).[45] FS reports that $147.8 million remained in its FLAME account at the end of FY2016.[46] DOI has exhausted its FLAME account in three years (FY2012, FY2013, and FY2016) but transferred funds from other accounts in only two years: FY2012 and FY2013 (see **Table 4**).

Table 3. FS Wildfire Suppression Spending, FY2007-FY2016

(millions of nominal dollars)

		Appropriations[b]				
Fiscal Year	Rolling 10-Year Suppression Obligation Average[a]	WFM Suppression and FLAME	Supplemental or Emergency Suppression	Total	Annual Suppression Obligations[c]	Funds Transferred from Other Accounts for Suppression
2007	$746.2	$741.5	$370.0	$1,111.5	$1,374.0	$100.0
2008	$911.0	$845.6	$1,326.0	$2,171.6	$1,458.7	$273.8
2009	$993.9	$993.9	$700.0	$1,693.9	$1,018.3	$0
2010	$1,128.5	$1,410.5	$0	$1,410.5	$897.7	$0
2011	$886.0	$1,285.9	$0	$1,285.9	$1,414.4	$0
2012	$854.6	$853.6	$0	$853.6	$1,436.6	$440.0
2013	$931.0	$809.0	$379.9	$1,188.8	$1,356.5	$505.0
2014	$995.5	$995.5	$600.0	$1,595.5	$1,196.0	$0
2015	$1,011.6	$1,011.1	$0	$1,011.1	$1,713.0	$700.0
2016	$1,126.3	$1,634.0	$700.0	$2,334.0	$1,875.6	$0

Source: Compiled by CRS. Unless otherwise specified below, data derived from detailed funding tables prepared by the House Committee on Appropriations, annual agency budget documents, and data from the FS Legislative Affairs office.

Notes:

a. Inflation adjusted for the fiscal year in which it is reported. This is generally the budget level requested by the President for Suppression (WFM Suppression and, starting in FY2010, FLAME).

b. Total Appropriations includes appropriations to FS's WFM suppression account, FLAME account, and any supplemental or emergency appropriation enacted for suppression activities, but it does not generally reflect any rescissions or budget adjustments for scorekeeping purposes. Emergency or supplemental appropriations may be used to repay funds borrowed from other accounts in the previous fiscal year.

[44] Personal communication with DOI and FS Legislative Affairs staff, May 2015 and July 2016.

[45] In the years that fire transfers did not occur but the FS WFM suppression and FLAME accounts were exhausted, FS used unobligated balances from previous fiscal years to cover additional suppression expenses as needed. Email from FS Legislative Affairs staff, May 2015 and July 2016.

[46] Personal communication with FS Legislative Affairs staff, January 2017.

c. FS reports that the obligation figures from FY2005 through FY2011 have been adjusted to account for the shifting of certain funds from the Suppression activity to the Preparedness activity in FY2012. Obligations may exceed appropriations in any given year because FS is authorized to carry forward unobligated balances from previous fiscal years and to transfer money from other accounts for suppression activities.

Table 4. DOI Wildfire Suppression Spending, FY2007-FY2016

(millions of nominal dollars)

		Appropriations[b]				
Fiscal Year	Rolling 10-Year Suppression Obligation Average[a]	WFM Suppression and FLAME	Supplemental or Emergency Suppression	Total	Annual Suppression Obligations[c]	Funds Transferred from Other Accounts for Suppression
2007	$257.0	$249.2	$95.0	$344.2	$470.5	$112.5
2008	$294.4	$289.8	$384.0	$673.8	$392.8	$0
2009	$335.2	$335.2	$65.0	$400.2	$218.4	$0
2010	$369.8	$444.8	$0	$444.8	$231.2	$0
2011	$384.0	$459.8	$0	$459.8	$318.8	$0
2012	$362.6	$362.3	$0	$362.3	$465.8	$15.5
2013	$368.5	$352.9	$23.0	$375.9	$399.2	$34.1
2014	$377.9	$377.9	$36.0	$413.9	$326.2	$0
2015	$383.7	$383.7	$0	$383.7	$417.5	$0
2016	$383.7	$468.7	$0	$468.7	$371.7	$0

Source: Compiled by CRS. Unless otherwise specified below, data derived from detailed funding tables prepared by the House Committee on Appropriations, annual agency budget documents, and data from the DOI Office of Wildland Fire Management.

Notes:

a. Inflation adjusted for the fiscal year in which it is reported.

b. Total Appropriations includes appropriations to DOI's WFM suppression account, FLAME account, and any supplemental or emergency appropriation enacted for suppression activities, but it does not generally reflect any rescissions or budget adjustments for scorekeeping purposes. Emergency or supplemental appropriations may be used to repay funds borrowed from other accounts in the previous fiscal year.

c. Obligations may exceed appropriations in any given year because DOI is authorized to carry forward unobligated balances from previous fiscal years and to transfer money from other accounts for suppression activities.

Transfer Authority to Supplement Suppression Funds

During an active wildfire season, the agencies may deplete their suppression accounts quickly. However, they must continue to respond to wildfires and therefore need to be able to access additional funds in a timely manner. Therefore, Congress has granted FS and DOI the authority to transfer funds from other accounts and programs to ensure that federal emergency response activities continue under certain conditions (often referred to as *fire transfers* or *fire borrowing*). The transfer authority is granted annually in the Interior, Environment, and Related Agencies appropriations acts, specifically in the general provisions section for DOI and the administrative provisions section for FS. The authority to transfer funds for WFM-related activities was first granted in the FY1980 appropriations law (P.L. 96-126), which allowed transfers for the emergency rehabilitation of lands impacted by wildfire. The authority was continued annually.

The FY1989 Interior appropriations law (P.L. 100-371) expanded the authority to allow for funds to be transferred for firefighting purposes in addition to emergency rehabilitation.[47] As noted above, the conditions for the transfer authority are that suppression funds in the respective WFM suppression account and FLAME reserve account must be nearly depleted.[48] Funds may be transferred from other discretionary accounts as well as from mandatory and permanent funding accounts and trust funds. Since the establishment of their FLAME accounts in FY2010, DOI has borrowed from other accounts twice: in FY2012 and FY2013 (see **Table 4**). FS has borrowed from other accounts during three years: FY2012, FY2013, and FY2015 (see **Table 3**).

Typically, FS and DOI have developed an internal fire borrowing plan prior to the start of the wildfire season.[49] The plans identify accounts and programs that may be targeted if transfers are needed, based in part on unobligated balances and in part on an incremental strategy that depends on the amount that would need to be transferred while minimizing potential impacts to the public and agency programs.[50] Agencies often target programs that have relatively large unobligated balances.[51] These programs are often funded in one year, but the funds may not be obligated for several years, potentially allowing for transfers to be made with minimal immediate impact so long as the funds are reimbursed. The agencies may then also make a request to Congress to provide additional funding to replenish the FLAME accounts and to repay the transferred funds.[52] Congress often provides a supplemental appropriation to repay those accounts. For example, Congress appropriated $700.0 million to FS in FY2016 as a supplemental appropriation to repay accounts used to cover suppression expenses incurred in FY2015. However, FS reports that cumulatively, $424 million in transferred funds remain repaid since FY2002.[53]

Fire Borrowing Impacts

The authority to transfer funds from other agency accounts for suppression operations is controversial and has been especially so since wildfire spending began to increase in the 2000s.[54] The authority to access additional funds for suppression operations provides FS and DOI flexibility to respond quickly in time-sensitive emergency situations. However, it also effectively provides them with an open-ended transfer authority, which some argue provides little incentive

[47] For example, the provision for FS reads: "Any appropriations or funds available to the Forest Service may be transferred ... for forest firefighting and the emergency rehabilitation of burned-over lands under its jurisdiction."

[48] In general, the agencies will have already depleted their WFM suppression accounts and transferred funds from their FLAME reserve accounts.

[49] Email from FS Legislative Affairs staff, February 2015.

[50] Historically, the FS borrowed funds primarily from its mandatory spending accounts, particularly the Knutson-Vandenberg (K-V) Fund. This account accumulated deposits from timber purchasers to reforest and otherwise improve timber in timber sale areas. Because of the lag between timber payments and reforestation, the K-V Fund often had a balance of about $500 million—more than enough to borrow for emergency fire suppression without impinging on one season's tree planting efforts. However, the K-V Fund has had a smaller balance since FY2000 (because of lower timber sales) while emergency wildfire suppression costs have risen. Thus, the FS has had to borrow funds from other FS accounts—land and easement purchases, recreation and wildlife management, and more.

[51] GAO, *Wildland Fire Management: Actions by Federal Agencies Could Mitigate Rising Fire Costs and Their Effects on Other Agency Programs*, GAO-09-444T, June 2004.

[52] 43 U.S.C. §1748a(2)(C)(ii) states that FS and DOI "should promptly make a supplemental request for additional funds to replenish the FLAME Fund if the Secretary determines that the FLAME Fund will be exhausted within 30 days."

[53] FS, *FY2017 Budget Justification*, p. 426, at http://www.fs.fed.us/about-agency/budget-performance.

[54] See, for example, the following GAO reports on wildland fire funding issues published between 2004 and 2009: GAO, *Wildfire Suppression: Funding Transfers Cause Project Cancellations and Delays, Strained Relationships, and Management Disruptions*, GAO-04-612, June 2004; GAO-07-655; and GAO-09-444T.

to manage suppression costs.[55] The agencies—and the Government Accountability Office (GAO)—also have argued that the fire transfers are disruptive to their other, non-fire operations and hinder their ability to carry out their statutory missions.[56] Borrowing from other program accounts—even when repaid in subsequent appropriations—creates uncertainty in the availability of funds and affects program implementation. In addition, some programs are time sensitive (e.g., land sales) and may suffer adverse impacts (e.g., changing land prices) if and when delayed by fire transfers.[57]

For decades, Congress and the agencies have debated strategies to insulate agency appropriations from emergency fire suppression funding, but efforts intensified in the 110th Congress and culminated in the passage of the FLAME Act in the 111th Congress. The conferees of the FY2010 Interior appropriations bill stated their intent that the funding provided in the FLAME account, together with appropriations to the WFM suppression account, should fully fund anticipated wildfire suppression needs and prevent future borrowing of funds from non-fire programs.[58] Despite this intent, as discussed earlier, the agencies have had to borrow funds since the establishment of their FLAME accounts (twice for DOI; three times for FS). More recent legislative proposals also seek to prevent fire borrowing (see "Legislative Proposals from the 114th Congress" section of this report).

Supplemental Suppression Appropriations

When wildfire suppression funding is exhausted, Congress faces the question of reimbursing the accounts from which funding was transferred. The funds may be provided in an emergency appropriations bill (such as P.L. 108-324), in the Interior appropriations bill but designated as "supplemental" or "additional," or in other legislative vehicles, such as continuing resolutions. These funds are typically designated to repay fire transfers (usually made in a previous fiscal year) or to replenish the WFM suppression or FLAME accounts.[59] Due to the timing of the fire season, typically peaking in August, a reimbursement decision may be made after the end of the fiscal year when the transfers were made. This timing may complicate discussions about how much suppression funding is needed for the coming fiscal year.

Congress has provided supplemental appropriations for wildfire suppression in 12 of the 16 fiscal years since FY2001, funding more than $8 billion for emergency wildfire activities for FS and DOI combined. Since the establishment of the FLAME account in FY2010, Congress has provided supplemental appropriations during three fiscal years: $403 million in FY2013, $636 million in FY2014, and $700 million in FY2016. Prior to FY2009, and again in FY2016, the supplemental appropriations were designated so as not to be subject to certain procedural or

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[55] National Academy of Public Administration, *Wildfire Suppression: Strategies for Containing Costs*, September 2002.

[56] See for example, GAO-04-612; testimony of FS Chief Tom Tidwell, in U.S. Congress, Senate Committee on Energy and Natural Resources, *Hearing to Receive Testimony on the Federal Government's Role in Wildfire Management, the Impact of Fires on Communities, and Potential Improvements to Be Made in Fire Operations*, 114th Cong., 1st sess., May 5, 2015; and FS, *Fire Transfer Impact by State*, June 9, 2014, at http://www.fs.fed.us/publications/forest-service-fire-transfer-state-impacts.pdf.

[57] GAO-04-612.

[58] H.Rept. 111-316.

[59] Despite these supplemental appropriations, FS reports that $424 million in transferred funds remain unpaid since FY2002 (on a cumulative basis)(FS, *FY2017 Budget Justification*, p. 426, at https://www.fs.fed.us/sites/default/files/fy-2017-fs-budget-justification.pdf).

statutory budget enforcement, such as the BCA limits on discretionary spending.[60] However, the supplemental appropriations provided in FY2013 and FY2014 did not contain any such designation and, as such, were subject to budget enforcement. (See the "Budgetary Constraints" section in this report.)

Forecasting Suppression Spending

FS and DOI must estimate future suppression spending years in advance, as well as during the wildfire season, to forecast spending levels and account balances ongoing in the current fiscal year. The agencies formulate their budget requests for suppression operations using a rolling average of previous years' suppression spending (including supplemental appropriations enacted for suppression purposes).[61] This method originated in the 1990s from an agreement between the House and Senate Committees on the Budget, the Congressional Budget Office, and the Office of Management and Budget.[62] Prior to the enactment of the FLAME Act, the agencies' WFM suppression activity requests would equal their rolling 10-year suppression obligation averages. From FY2010 to FY2014, the agencies' WFM suppression activity requests plus their FLAME account requests equaled their rolling 10-year suppression obligation averages. From FY2015 through FY2017, the Obama Administration had requested a new funding mechanism for suppression operations, which included eliminating the FLAME reserve fund and requesting 70% of the rolling 10-year suppression obligation average for the WFM suppression activity.[63]

Due to the timing of the budget process, the suppression budget request for any given year is based on the rolling 10-year suppression obligation average calculated two fiscal years previously. For example, the FY2016 suppression budget request was formulated using the FY2014 rolling obligation average. This means that suppression spending from FY2005 through FY2014 was used to formulate the suppression budget request for FY2016.

Because it is based on past spending, the rolling 10-year suppression obligation average is a lagging indicator of future suppression spending.[64] Lagging indicators, in general, demonstrate patterns across previous years but do not necessarily signal future trends. As such, the rolling 10-year suppression obligation average may not be the most accurate method to predict future suppression spending needs during the budget formulation process. For example, the rolling 10-year suppression obligation average has underestimated suppression spending for both FS and DOI in all but 2 of the past 10 fiscal years (FY2007-FY2016). On average, over the past 10 fiscal years, the rolling 10-year suppression obligation average has been nearly 50% below the obligations for FS and 6% below the DOI suppression obligations.

[60] For example, "designated by the Congress as being for an emergency requirement pursuant to §251(b)(2)(A)(i) of the Balanced Budget and Emergency Deficit Control Act of 1985." For more information on emergency designations, see CRS Report R41564, *Emergency Designation: Current Budget Rules and Procedures*, by (name redacted)

[61] See FS and DOI annual budget justification documents for a description of how the rolling 10-year suppression obligation is calculated.

[62] U.S. Congress, House Committee on Natural Resources, *Federal Land Assistance, Management and Enhancement Act*, Report to accompany H.R. 5541, 110th Cong., 2nd sess., June 10, 2008, H.Rept. 110-704.

[63] For more information on the Obama Administration's proposal, see FS FY2016 Budget Justification, p. 251; and DOI Wildland Fire Management FY2016 Budget Justification, p. 35.

[64] In 2004, GAO recommended that FS and DOI develop a method to predict suppression spending that was more accurate than using the rolling 10-year obligation average (GAO-04-612).

When wildfire spending began to increase in the 2000s, GAO noted that the agencies' forecasting methods were insufficient in terms of both annual and in-season budgeting.[65] FS reportedly analyzed alternative methods, but FS and DOI still use the 10-year suppression obligation average to formulate budget requests, even though suppression spending surpasses the estimate most years.[66] An earlier proposed version of the FLAME Act would have required the agencies to use a rolling 5-year suppression obligation average to formulate their budget requests.[67] A rolling 5-year average potentially would have predicted future suppression spending more accurately than a 10-year average, since the lower values from earlier years would drop out of the calculation. However, because a rolling 5-year average still would have been based on past spending, it also would have been a lagging indicator and likely would have underestimated suppression spending. The enacted version of the FLAME Act did not contain that provision, however. Instead, the FLAME Act requires the agencies to develop an estimate based on the best available science—the FLAME forecasts discussed below—but does not direct that these estimates or forecasts be used to formulate budget requests.[68]

FS and DOI also must predict suppression spending during a wildfire season to ensure the availability of funds and to determine if and how much additional funding is going to be necessary. In response to FLAME Act requirements, FS and DOI began using regression models that incorporate weather and climate data, among other data, to forecast spending.[69] The models predict a range of suppression spending within a 90% confidence interval (CI) and are published four times per year: March, May, and June, with a September outlook for the upcoming year.[70] The FLAME forecasts vary; for example, the estimate for the upper 90% CI ranged from $1.6 billion for FS in the March 2014 forecast to $2.0 billion in the May 2014 forecast three months later. In the six years (FY2011-FY2016) for which data are available, suppression obligations exceeded the annual average FLAME median forecast for the FS five times and DOI four times, although only by $8 million in FY2016. Suppression obligations exceeded the average upper 90% CI three times for FS, but not for DOI (see **Figure 8** and **Figure 9**).

The FLAME forecasts generally have not been the basis used for funding requests in the annual budget formulation process, although out-year forecasts are provided to the agencies two fiscal years in advance. Instead, the Obama Administration's budget requests for suppression have continued to use the 10-year obligation average but also have included requests for access to additional funds above the 10-year obligation average up to the upper forecast range. The agencies have used the out-year and current-year forecasts to inform congressional decisionmakers about potential spending levels throughout a wildfire season or during budget hearings.

[65] GAO-04-612.

[66] GAO-09-444T, p. 8.

[67] See §2(c)(2) of H.R. 5541 from the 110th Congress.

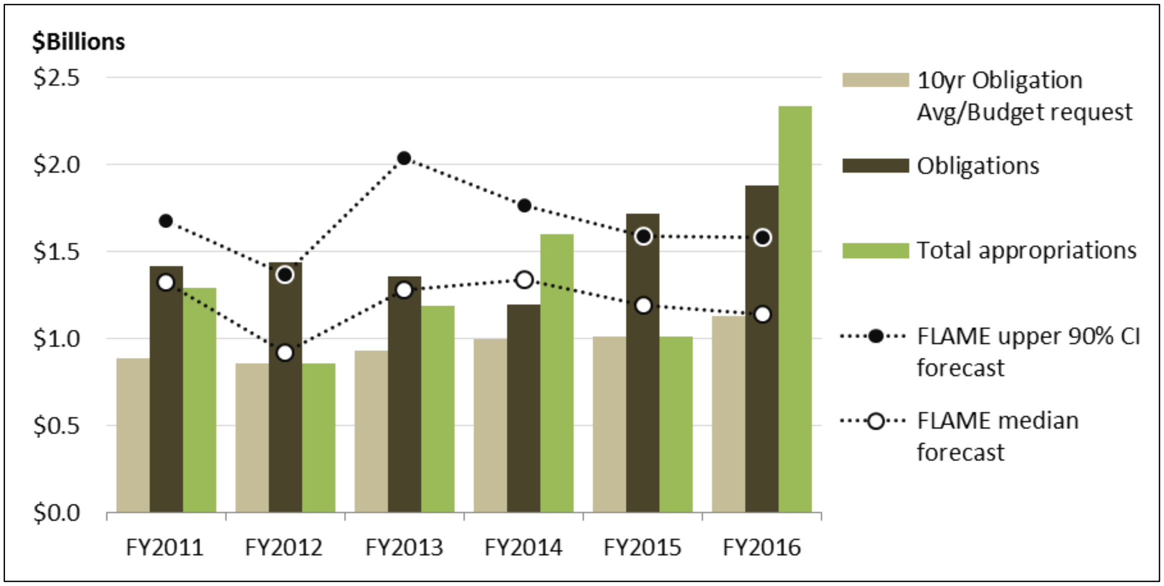
[68] 43 U.S.C. §1748a(h)(3)(D).

[69] 43 U.S.C. §1748a(h)(3)(D).The FS Southern Research Station runs the regression models for both FS and DOI based on methods developed by J. P. Prestemon, K. L. Abt, and K. Gebert, "Suppression Cost Forecasts in Advance of Wildfire Seasons," *Forest Science*, vol. 54, no. 4 (2008), pp. 381-396; and K. L. Abt, J. P. Prestemon, and K. Gebert, "Wildfire Suppression Cost Forecasts for the U.S. Forest Service," *Journal of Forestry*, vol. 107, no. 4 (2009), pp. 173-178.

[70] Each successive forecast in a year should theoretically more closely predict that year's spending, given increasing data points in the model.

Figure 8. Forest Service Suppression Request, Appropriations, Obligations, and FLAME Forecasts

(nominal dollars in billions)

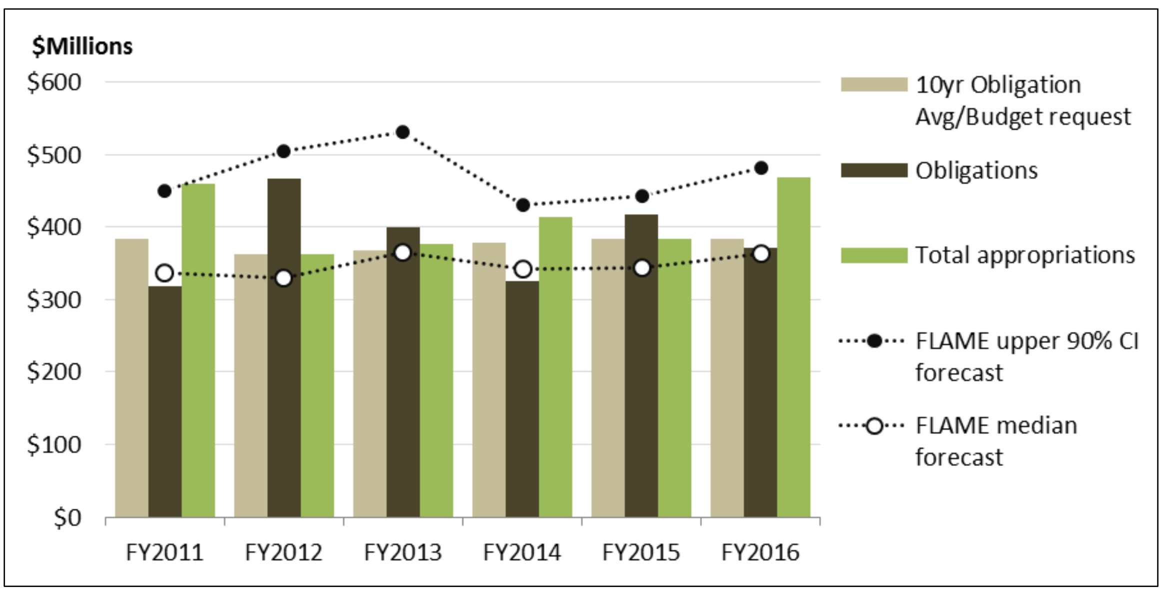


Source: CRS.

Notes: CI = confidence interval. Suppression includes appropriations to the WFM suppression activity, FLAME account, and any supplemental or emergency appropriation enacted for suppression purposes. The FLAME median forecast is the average of the four reported median values per year. The FLAME upper 90% confidence interval forecast is the average of the four reported values per year.

Figure 9. DOI Suppression Request, Appropriations, Obligations, and FLAME Forecasts

(nominal dollars in millions)



Source: CRS.

Notes: CI = confidence interval. Suppression includes appropriations to the WFM suppression activity, FLAME account, and any supplemental or emergency appropriation enacted for suppression purposes. The FLAME median forecast is the average of the four reported median values per year. The FLAME upper 90% confidence interval forecast is the average of the four reported values per year.

Issues for Congress

Congress last enacted changes to the mechanisms for wildfire spending in the 110th Congress with the passage of the FLAME Act.[71] The 114th Congress explored several interrelated issues pertaining to funding federal wildland fire management in general—and to wildfire suppression operations in particular—through congressional hearings, and it considered several legislative proposals.

Appropriation Levels and Forecasts

Each year, Congress considers at what level suppression (and wildland fire management in general) should be appropriated. Suppression costs are difficult to predict and can fluctuate widely. From FY2010 to FY2011, for example, combined FS and DOI suppression obligations increased more than 50%, but from FY2011 to FY2012, obligations increased by less than 10%. From FY2013 to FY2014, obligations decreased by 15%, but between FY2014 and FY2015, obligations increased 40%. These variations make it difficult for Congress to know at what level to appropriate in any given year. As discussed above, the budget formulation process is based on a rolling historic average, which has underestimated suppression spending 8 out of the last 10 years, by nearly 50% annually on average (FY2007-FY2016). The agencies have borrowed funds from other accounts in 6 of those 10 years, and Congress has also appropriated supplemental suppression appropriations in 5 of those years (and in FY2016 to repay funds borrowed in FY2015).[72]

The intent of the FLAME accounts was to eliminate the need for fire borrowing or supplemental appropriations by serving as a reserve fund.[73] The FLAME accounts, however, are funded through a definite appropriation (a specified amount) that is still budgeted using the rolling 10-year suppression obligation average. After the FLAME accounts were established, the agencies continued to receive suppression appropriations equal to the 10-year suppression obligation average, although the funds were divided in two different accounts. The FLAME Act, in essence, created an additional account for suppression operations but did not create access to any additional funds above what was already being provided. The FLAME Act directed that the agencies develop a better formula to forecast suppression spending, but it did not mandate that the agencies use that formula to formulate budget requests (although that was debated). It also may be argued that the FLAME Act actually created various hurdles for the agencies to access a portion of the suppression funds they previously could access freely.

While it may be argued that the issue is that suppression costs are not being fully funded—requiring the agencies to deplete other accounts and, potentially, the appropriation of

[71] A prior version of the FLAME Act was first introduced in the 109th Congress. The 109th and 110th Congresses also considered other bills to address wildfire spending, such as S. 3729 (109th Congress) and S. 1770 (110th Congress). The Obama Administration proposed the establishment of a suppression reserve fund in FY2010 and FY2011, which was similar to the FLAME Act but with some fundamental differences, including requiring a presidential declaration to access the funds. See FS's FY2011 Budget Justification, p. 13-1, for more information on the proposal.

[72] In the other two years, the agencies were able to use unobligated balances carried over from previous fiscal years to cover their annual obligation costs and did not need to borrow funds from other accounts or require a supplemental appropriation. Supplemental appropriations may have been provided in the fiscal year following a fire transfer.

[73] H.Rept. 111-316.

supplemental funds—the ability to access other funding sources has allowed the agencies to honor all suppression obligations incurred during any given fiscal year. However, this may sometimes be at the expense of not fully funding other programs. A more accurate description may be that suppression costs for any given year are not necessarily being fully funded in advance for that fiscal year. In this sense, funding for suppression is sometimes reactive, not proactive. This is in part due to the unpredictable nature of wildfires and wildfire spending as well as difficulties in accurately predicting future suppression costs. Improving the suppression spending forecasts used for budget decisions may alleviate some of the agencies' needs to supplement their suppression accounts during the fiscal year. Congress may consider directing the agencies to use a different or specified methodology during their budget formulation processes, or it may continue to allow the agencies the discretion to formulate their own budget requests using the methodologies they deem most appropriate.

Funding Source

Federal spending on wildland fire management is currently more than four times what it was in the 1990s. A significant portion of that increase is related to rising suppression costs, even during years of relatively mild wildfire activity. The year 2015 saw significant wildfire activity and significant federal spending on wildfire suppression; FS and DOI combined obligated $2.1 billion in 2015. The year 2016 saw less wildfire activity than 2015 but more spending ($2.2 billion combined in 2016, the most spent in one year to date). Although the 2013 and 2014 wildfire seasons had fewer fires and burned fewer acres than in 2012, Congress appropriated more funds in each successive fiscal year, including providing supplemental appropriations in FY2013 and FY2014. In FY2016, in addition to providing $700 million in supplemental appropriations to FS to repay funds borrowed in FY2015, Congress also appropriated significantly more to each agency's WFM suppression and FLAME accounts. Not including the supplemental appropriation, FS received $1.6 billion in FY2016 for suppression activities, more than $600 million more than in FY2015 ($1.0 billion). DOI received $468.7 million in FY2016, $85 million more than in FY2015 ($383.7 million).

Congress may consider whether or how to address the rising costs of wildfire management and suppression operations. Some are concerned that the rising costs are coming at the expense of funding other agency programs, some of which may potentially reduce future suppression spending.[74] Wildfire accounts for an increasing proportion of FS's budget, up from 47% in FY2007 to 61% in FY2016 (57% not counting the $700 million supplemental). As wildfire funding has accounted for a larger proportion of total FS appropriations, other FS programs naturally account for a smaller proportion, even though the actual dollar amounts appropriated to those programs may have increased. For example, the proportion of FS's budget devoted to managing the National Forest System and for construction and maintenance each decreased over the same time period, although it is not clear if the declines are attributable entirely to increasing wildfire funding. Congress may want to consider options that would maintain consistent levels of funding for other agency programs, although doing so could come at the expense of other agencies or programs funded through the Interior appropriations bill (discussed below) or may contribute to increasing the federal deficit if the costs are not offset.

Congress also may want to discuss ways to reduce the overall cost of suppression spending. FS, DOI, GAO, and others have argued that increasing current investments in hazardous fuel

[74] GAO-09-444T; D. E. Calkin, M. P. Thompson, and M. A. Finney, "Negative Consequences of Positive Feedbacks in U.S. Wildfire Management," *Forest Ecosystems*, vol. 2, no. 9 (2015).

reduction projects may potentially reduce long-term suppression spending.[75] Others argue that the agencies should place a higher priority on cost containment efforts, perhaps by reducing agency budgets or restricting access to additional funds under certain conditions.[76] Another option Congress may consider is addressing the proportion of wildfire suppression costs borne by the federal government—for example, by developing a consistent federal cost apportionment method, which currently varies by state and often by fire, depending on the terms of the cooperative fire agreement. Other options include providing incentives for nonfederal entities to mitigate their risk of wildfire damages or discourage future WUI development, among others.

Budgetary Constraints

Discretionary spending—including wildfire appropriations—currently is subject to certain procedural and budgetary controls. In the past, Congress has effectively waived some of these controls for certain wildfire spending, but it has not done so in more recent years. This has prompted some to explore ways to effectively provide certain wildfire spending outside of these constraints.

Discretionary Spending Limits Background

Pursuant to the Budget Control Act of 2011 (BCA),[77] discretionary spending currently is subject to statutory limits for each of the fiscal years between FY2012 and FY2021. Specifically, two different limits apply—one to "defense" and the other to "nondefense" spending. The defense category includes all discretionary spending under budget function 050 (defense); the nondefense category includes discretionary spending in all other budget functions.[78] Enacted discretionary spending may not exceed these limits. In the event that spending is enacted that exceeds a limit, the limit is to be enforced through sequestration, which involves the automatic cancellation of budget authority through largely across-the-board reductions of nonexempt programs and activities.[79] These reductions would occur to spending in the category of the limit that was breached.

Certain spending is effectively exempt from the discretionary spending limits pursuant to Section 251(b) of the Balanced Budget and Emergency Deficit Control Act (BBEDCA),[80] because those limits are "adjusted" upward to accommodate that spending. For example, these adjustments include budget authority designated as emergency requirements, as well as that designated as for disaster relief. The purpose of these designations is, in part, to address the unpredictable nature of

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[75] See for example, Calkin et al., "Negative Consequences"; GAO, *Wildland Fire Management: Lack of a Cohesive Strategy Hinders Agencies' Cost-Containment Efforts*, GAO-07-427T, January 2007; GAO, *Wildland Fire Management: Federal Agencies Have Taken Important Steps Forward, but Additional, Strategic Action Is Needed to Capitalize on Those Steps*, September 2009.

[76] Ingalsbee, *Getting Burned*; and Headwaters Economics, *Solutions to the Rising Costs of Firefighting in the Wildland-Urban Interface*, September 2009.

[77] P.L. 112-25.

[78] For further information on budget functions, see CRS Report 98-280, *Functional Categories of the Federal Budget*, by (name redacted)

[79] The sequestration mechanism to enforce the statutory discretionary spending limits is provided by the BBEDCA, as amended by the BCA. For further information about these procedures, see CRS Report R41965, *The Budget Control Act of 2011*, by (name redacted), (name redacted), and (name redacted) . The Congressional Budget Act of 1974 (Titles I-IX of P.L. 93-344, 2 U.S.C. §601-688) provides for procedural enforcement consistent with the statutory spending limits, including the adjustments to those limits.

[80] Title II of P.L. 99-177, 2 U.S.C. §900-922, as amended by the BCA.

disaster assistance while attempting to impose discipline on the amount spent by the federal government on disasters. The emergency designation could apply to a number of different types of purposes,[81] whereas the disaster relief designation is more narrowly limited to costs of major disasters that have been declared pursuant to Section 102(2) of the Stafford Act.[82] Wildfire suppression operations are an allowable purpose for the emergency designation but are not included under the disaster relief designation. Of the six supplemental appropriations provided for wildfire suppression operations from FY2007 through FY2016, Congress designated four as emergency spending, including the supplemental appropriations provided in FY2016. The supplemental appropriations provided in FY2013 and FY2014 did not receive emergency designations.

While there is no limit on the amount of budget authority that can be designated as emergency requirements each fiscal year, the amount that can be designated using the disaster relief designation is limited by a formula. This formula is based on the average funding provided for disaster relief over the last 10 years, excluding the highest and lowest annual amounts.[83] If less than the maximum amount allowed by the formula is ultimately appropriated for a fiscal year, then the difference is added to the amount that the disaster formula yields for the next fiscal year.[84] For example, if the formula for a fiscal year allows $10 billion in disaster designated spending, but only $6 billion is appropriated, then the amount of the allowable disaster designation for the following fiscal year will be the formula plus the $4 billion in carryover from the previous fiscal year. This total amount—formula plus carryover, if any—is sometimes referred to as the *disaster cap*.

Since FY2012, when the BCA discretionary spending limits were first implemented, three different types of discretionary spending have been provided to prevent or respond to natural disasters—spending that is subject to the discretionary spending limits, spending designated as for disaster relief, and spending designated as for emergency requirements.

- Spending subject to the limits has been provided each fiscal year in regular appropriations measures to respond to disaster events, including wildfires, in a number of different appropriations accounts, such as certain FEMA appropriations in the Disaster Relief Fund and the Small Business Administration appropriations for disaster loans.[85]
- Disaster-designated spending has been provided each fiscal year through the regular appropriations process for response and recovery work for presidentially declared events that are not wildfires. In previous practice, the great majority of such spending also has been appropriated to the FEMA DRF to be used for the response to major disasters. However, in some instances, disaster-designated funding also has been provided to address the unmet needs created by major

[81] Although Congress may apply the emergency designation at its discretion, the BBEDCA, §250(c)(20), defines *emergency* to mean "a situation that—(A) requires new budget authority and outlays (or new budget authority and the outlays flowing therefrom) for the prevention or mitigation of, or response to, loss of life or property, or a threat to national security; and (B) is unanticipated."

[82] 42 U.S.C. §5122(2).

[83] For additional discussion on the BCA and disaster spending, see CRS Report R42352, *An Examination of Federal Disaster Relief Under the Budget Control Act*, by (name redacted), (name redacted), and (name redacted) .

[84] BBEDCA, §251(b)(2)(D). The amount that is allowed for the disaster designation each fiscal year is calculated by the Office of Management and Budget.

[85] The DRF provides funding for all open disasters, disasters currently impacting the nation, and retains a balance for possible future disaster events.

disasters beyond those provided to the DRF, such as for the Community Development Block Grant program at the Department of Housing and Urban Development and the Army Corps of Engineers.

- Emergency spending usually has been provided to supplement disaster-designated spending, as well as spending that is subject to the discretionary spending limits, in response to events that have already occurred, including wildfires.

According to FEMA, the BCA necessitated the development of a new, two-part approach to accounting for disaster-related activity, with one approach for major disasters and another for all other DRF activity:

> Essentially, requests for DRF funding for FEMA's Stafford Act programs and disaster support activities fall into two categories: disaster relief cap adjustment and base/non-major disasters. Funding requested under the disaster relief cap adjustment is for major disasters declared pursuant to the Stafford Act and designated by the Congress as being for disaster relief pursuant to Section 251(b)(2)(D) of the BBEDCA, as amended by the BCA. Funding requested under the base/non-major disasters category includes Emergencies, Pre-disaster Surge Support, Fire Management Assistance Grants and activities that are non-disaster specific, such as Disaster Readiness Support (DRS) activities (e.g., distribution centers, reservist training, etc.).[86]

Legislative Proposals from the 114th Congress

Congress considered several questions in addressing wildfire suppression spending issues in the 114th Congress, which included

- what level to appropriate for suppression activities;
- how to provide for unpredictable costs quickly;
- where the money should come from; and
- whether suppression money should be subject to or outside of certain statutory budget controls.

These proposals may be of interest to the 115th Congress. This section of the report discusses four proposals—S. 235, H.R. 167, S. 508, H.R. 2647—that were considered by the 114th Congress to address issues related to wildfire funding.[87]

All four bills cited above contained provisions that were intended to address concerns that wildfire suppression activities have not been adequately funded each year. Three of the bills—S. 235, H.R. 167, and S. 508—effectively would have allowed some funds provided for wildfire suppression activities that meet certain criteria to not be subject to the limits on discretionary spending. Under these proposals, varying levels of wildfire funding would not have needed to compete with other programs and activities that were subject to the limits. These proposals also would have modified the existing disaster relief designation to interact with the additional wildfire spending that was provided pursuant to these new procedures. H.R. 2647 would have

[86] U.S. Department of Homeland Security, *Federal Emergency Management Agency Disaster Relief Fund: FY2013 Congressional Justification*, p. 5, at http://www.fema.gov/pdf/about/budget/11f_fema_disaster_relief_fund_dhs_fy13_cj.pdf.

[87] These bills are summarized and analyzed as illustrative examples of different legislative approaches to address wildfire suppression funding. Other bills from the 114th Congress also addressed wildfire funding.

provided a related discretionary spending option for wildfire suppression operations funding, but it took a different approach from the other three proposals.

S. 235 and H.R. 167 (The Wildfire Disaster Funding Act)

Two similar versions of the Wildfire Disaster Funding Act were introduced in the 114th Congress (H.R. 167 and S. 235). The bills had minor differences from each other and from versions introduced in the 113th Congress (S. 1875 and H.R. 3992). S. 235 was referred to the Senate Budget Committee; H.R. 167 was referred to the House Budget Committee, in addition to the Agriculture and Natural Resources Committees. This section of the report provides an analysis of the proposals as introduced in the 114th Congress.[88]

Summary

S. 235 and H.R. 167 would have amended the BBEDCA to add a new adjustment to the nondefense discretionary spending limit for "wildfire suppression operations," which would have included spending for the purposes of

- the emergency and unpredictable aspects of wildland firefighting, including support, response, and emergency stabilization activities;
- other emergency management activities; and
- funds necessary to repay any transfers needed for these costs.

There was a precondition for using this adjustment—that 70% of the 10-year average funding level for wildfire suppression operations must have been appropriated subject to the limits. Once that precondition was met, the amount of the adjustment for the additional wildfire suppression operations funding was capped each fiscal year. In H.R. 167, the wildfire adjustment was limited to $2.689 billion each fiscal year through FY2022. In contrast, the maximum amount of the wildfire adjustment in S. 235 started at $1.410 billion in FY2016 and gradually increased to $2.690 billion in FY2025.[89]

These proposals also would have affected the calculation of the maximum amount for the existing disaster relief adjustment—also referred to as the disaster cap—because the disaster cap calculation would have interacted with the proposed wildfire adjustment in two ways. First, starting in FY2017 under H.R. 167 or FY2018 under S. 235, the calculation of the 10-year rolling average for the disaster cap formula would have included any budget authority provided using the wildfire designation in previous fiscal years. As a consequence, the amounts that were provided under the wildfire adjustment would have been gradually incorporated into the calculation of the 10-year rolling average for disaster relief. Second, after the disaster cap for a fiscal year was calculated (including incorporating the amount of the prior-year wildfire adjustments into the calculation), the amount of the disaster cap was to be reduced by the amount of the previous fiscal year's wildfire adjustment. For example, if $1.4 billion had been provided using the wildfire adjustment in FY2016, the FY2017 disaster cap would have been lowered by $1.4 billion.

[88] For further information about S. 1875 and H.R. 3992 (113th Cong.), see the CRS congressional distribution memorandum "The Wildfire Disaster Funding Act (S. 1875 and H.R. 3992), 113th Congress, March 26, 2014, available upon request from the authors.

[89] The BCA spending limits are currently through FY2021.

Potential Implications

Both S. 235 and H.R. 167 would have removed some budget process barriers for the provision of additional wildfire suppression funds, either through the annual appropriations process or through supplemental appropriations. Whatever amount, if any, Congress elected to appropriate over the minimum 70% for wildfire suppression (up to the specified maximum in each bill) effectively would not have been subject to the discretionary spending limits established in the BCA each year. For example, were these proposals to have been in effect for FY2016, Congress could have appropriated the minimum of $1.057 billion for suppression operations, which was 70% of the combined FS and DOI suppression obligation for FY2016 ($1.510 billion). But then Congress could have appropriated an additional $2.689 billion under H.R. 167 or $1.410 billion under S. 235 in FY2016, effectively outside of the budget controls discussed above. This means the agencies could have been appropriated up to $3.746 billion in H.R. 167, or $2.467 billion in S. 235, with $1.057 billion of those amounts subject to the BCA discretionary limits. However, because these proposals left actual funding decisions to future Congresses, Congress could have chosen to appropriate less than the minimum 70% threshold so that the adjustments allowed would not have been triggered.

Other potential budgetary and policy effects of both S. 235 and H.R. 167 were unknown. It is not clear how these proposals would have interacted with the FLAME accounts. The bills specified that at least 70% of the budget request would have to have been appropriated for suppression operations but did not specify whether the appropriations had to be in the agencies' respective WFM or FLAME accounts. The FLAME accounts will expire if funds are not appropriated to (or withdrawn from) them for three consecutive years.[90]

S. 235 and H.R. 167 also were silent as to fire borrowing. If either of these proposals were enacted, it was unclear if fire borrowing authorities would have continued to be provided in appropriations laws.

Both S. 235 and H.R. 167 would have required the USDA and DOI Secretaries to continue to use the rolling 10-year average of suppression obligations to formulate their suppression budget requests. The USDA and DOI Secretaries also would have been directed to "promptly" submit any request to Congress for supplemental wildfire suppression operations funding, and to submit a plan to Congress explaining how the supplemental appropriations would be obligated within 30 days of receiving them. This proposal would have largely codified recent agency practices, with some modifications. This could have given Congress more advance notice about the need for supplemental wildfire suppression operations appropriations, as well as information on how the agencies proposed to use those additional appropriations. Both this advance notice and additional information could have aided Congress in appropriations decisionmaking and oversight. They also might have added to the workload of both the FS and DOI during a critical time of providing wildfire assistance.

This interaction between the proposed wildfire and existing disaster relief adjustments had a number of potential implications for the amount of the disaster cap in the future. However, because these potential implications were highly sensitive to future appropriations decisions made by Congress and the President each fiscal year, the extent to which the calculation for the disaster cap would have been affected by the use of the wildfire adjustment cannot be determined definitively. Assuming that the wildfire adjustment was first used in FY2016, for the next several years, the disaster formula would have been based on 10 fiscal years of funding for disaster relief

[90] 43 U.S.C. §1748(a)(g).

(minus the highest and lowest fiscal year), but fewer than 10 fiscal years of the wildfire adjustment would have been available to be incorporated into the base calculation. This would have had the potential to make the amount available for the disaster cap lower than it otherwise might have been. On the other hand, appropriations for the full adjustment allowed by the disaster cap have not been made since FY2013, which is causing the amounts that are used to calculate the 10-year rolling average for the amount of the cap in future fiscal years to be lower than they would have been had the full amount of the disaster cap been appropriated. As a consequence, adding wildfire-designated spending into the formula might have had the effect of increasing the amount of the disaster cap above what it otherwise might have been. Another factor that affects these considerations is the amount that was assumed to be appropriated using the wildfire adjustment each fiscal year, because either the full amount allowed or a lesser amount might have been appropriated.

Legislative Action

Neither of these proposals received committee consideration prior to the conclusion of the 114th Congress, although other relevant action occurred in the context of the wildfire management budget requests, budget resolutions, and the annual Interior, Environment, and Related Agencies appropriations bill.

The Obama Administration's FY2016 and FY2017 wildfire management budget requests included a proposal to change how suppression operations were funded, similar to H.R. 167 and S. 235. However, the Obama Administration's proposed maximum cap adjustment would have been the difference between the upper 90% confidence interval FLAME forecast and the rolling 10-year suppression obligation average. (In FY2016, this would be $854.6 million.)[91]

The FY2016 budget resolution (S.Con.Res. 11) included two procedural provisions related to wildfire suppression operations funding. First, the Senate Budget Committee-reported version included a spending-neutral reserve fund to "improve forest health" that, in part, would have allowed for the applicable committee allocations, aggregates, and other levels in the budget resolution to be revised to the purposes of measures relating to "reform of the process of budgeting for wildfire suppression operations."[92] Second, during Senate floor consideration of the budget resolution, an amendment was adopted that would have provided a procedural adjustment to the budget enforcement limits associated with the budget resolution "if a measure becomes law that amends the adjustments to discretionary spending limits established under Section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985 (2 U.S.C. 901(b)) for wildfire suppression funding" (S.Amdt. 434).[93] This amendment was agreed to by unanimous consent. Both of these provisions, with minor changes, were included in the final version of the budget resolution agreed to by Congress—at Sections 3208 and 4319.

The Senate Appropriations Committee recommended a similar proposal in the committee-reported versions of the FY2017 Interior, Environment and Related Agencies appropriations bill (S. 3068). Title V of S. 3068 would have created a new adjustment for wildfire suppression operations and altered the calculation for the disaster cap based on the amount of wildfire adjustment appropriations that were ultimately provided.

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[91] For more information, see FS FY2016 Budget Justification, p. 251; and DOI Wildland Fire Management FY2016 Budget Justification, p. 35.

[92] S.Con.Res. 11, §319. For information about reserve funds, see CRS Report R43535, *Provisions in the Bipartisan Budget Act of 2013 as an Alternative to a Traditional Budget Resolution*, by (name redacted) .

[93] S.Con.Res. 11, §424.

There were three main differences between Title V of the Interior bill and H.R. 167/S. 235:

- The precondition for using the adjustment was that 100% of the 10-year average for wildfire suppression operations also must be appropriated subject to the BBEDCA spending limits.
- The range specified for the wildfire adjustment was set initially at $1.410 billion for FY2017 and gradually increased to $2.690 billion for FY2026.
- FS and DOI would have been required to submit a comprehensive report analyzing management decisions, fire activity, and fire accounting, among other topics.

S. 508 (The FLAME Act Amendments of 2015)

The FLAME Act Amendments bill was introduced in the 114th Congress as S. 508 and referred to the Senate Committee on Energy and Natural Resources. An earlier version of the bill was previously introduced in the 113th Congress (S. 2593); it received no further congressional action. This section of the report provides an analysis of the wildfire spending provisions of S. 508 as introduced. (S. 508 also contained additional titles addressing specific national forest management issues as well as stewardship contracting, which are not discussed.)

Summary

Like S. 235 and H.R. 167, S. 508 would have amended the BBEDCA to add a new adjustment for "wildfire suppression operations" spending. However, this proposal would have imposed two different sets of preconditions to access the adjustment. First, the bill required that a minimum amount subject to the statutory discretionary spending limits be appropriated to the DOI and FS Wildland Fire Management accounts. This minimum amount was the greater of

- 100% of the average costs for wildfire suppression operations over the previous five years; or
- the estimated amount of anticipated wildfire suppression costs at the upper bound of the 90% confidence interval for that fiscal year calculated in accordance with the FLAME Act.

In addition, an amount equal to at least 50% of that minimum amount would be specified for various forest management activities to mitigate future fire risk, such as

- authorized hazardous fuels reduction projects[94] and other activities of the Secretary of the Interior;
- forest restoration and fuel reduction activities performed outside of the WUI that are on condition class 3 federal land or condition class 2 federal land located within fire regime I, fire regime II, or fire regime III;[95] or

[94] This includes activities authorized by the Healthy Forests Restoration Act of 2003 (16 U.S.C. §§6501 et seq.) and the Tribal Forest Protection Act of 2004 (25 U.S.C. §3115a).

[95] Fire regime condition class is a classification that describes the relative change between the historical (prior to modern human intervention) frequency and intensity of fire patterns across a vegetated landscape to the current fire patterns. For more information, see S. Barrett et al., *Interagency Fire Regime Condition (FRCC) Guidebook Version 3.0*, 2010, at https://www.frames.gov/frcc.

- timber sales, pre-commercial thinning, and salvage harvests performed on National Forest System lands.

Second, S. 508 would have required that all amounts in the FLAME fund be expended prior to the enactment of an appropriation subject to the wildfire adjustment.

Once those preconditions were met, the measure would have provided an adjustment for wildfire suppression operations of up to $1 billion in additional new budget authority in each of FY2016 through FY2022. The allowable purposes for spending that used this adjustment were the same as those in S. 235 and H.R. 167.

This proposal also contained provisions that would have affected the wildfire adjustment with the existing disaster designation, but in a different way than the proposals discussed in the previous section. The formula for the disaster cap would have still involved the 10-year rolling average for disaster relief spending, minus the high and low fiscal years, plus any prior year carryover. The amount of the wildfire adjustment from the previous fiscal year would also have been subtracted from that calculation. However, the 10-year rolling average for the disaster relief designation would not have incorporated amounts appropriated pursuant to the wildfire adjustment.

Potential Implications

The framework of S. 508 was similar to H.R. 167 and S. 235 in that it also would have removed some budget process barriers for the provision of additional wildfire suppression funds. However, S. 508 differed from those other proposals in some significant ways. First, under S. 508, only up to an additional $1 billion for suppression spending could have been provided under the new adjustment. Second, the minimum amount required to be appropriated subject to those limits would have been the greater of the rolling five-year suppression obligation average or the upper bound of the FLAME forecast. In addition, whatever amount Congress had appropriated for suppression operations, an amount equal to half would have been required for various forest management activities, such as hazardous fuels reduction. It was not clear if this other amount would have been half of the suppression operations appropriation or an additional amount equal to that half. Regardless, requiring an appropriation amount equal to half of the greater of the five-year suppression obligation average or the upper 90% FLAME forecast would have increased the agencies' investment in hazardous fuels reduction substantially. Over the past five fiscal years (FY2012-FY2016), an average of $327 million has been provided to the FS, and $163 million to DOI, for the hazardous fuels activity within the agencies' respective WFM other operations accounts. While the proposed additional funding could have funded activities that would have potentially mitigated future fire risk, these additional funds might have come at the expense of other agency programs.

S. 508 would have required the FLAME reserve funds to be depleted completely prior to authorizing any additional wildfire suppression funds through the wildfire adjustment. This requirement had some potential implications for the timing of the additional wildfire appropriations. If the FLAME fund had continued to receive annual appropriations, the wildfire adjustment generally could not have been used to provide additional funds in the same annual appropriations laws. Instead, such funds would have needed to be provided in supplemental appropriations acts once the FLAME funds were exhausted each year, which could have further added to Congress's summer legislative agenda. Alternatively, if Congress had wanted to provide these additional wildfire appropriations through the annual appropriations process, one way to do so would have been to discontinue providing appropriations to the FLAME fund and instead fund agency wildfire suppression operations entirely through their other accounts.

Like H.R. 167 and S. 235, the S. 508 formula also had potential implications for the amount available for the disaster cap in future fiscal years. Because the amount appropriated using the wildfire adjustment would have been subtracted from the disaster calculation and not factored into the 10-year rolling average, the use of the wildfire adjustment would have had the potential to make the disaster cap lower than it otherwise might have been. However, the extent to which this would have occurred would depend on whether the full amount allowed for the wildfire adjustment or a lesser amount had been appropriated. As was the case for S. 235 and H.R. 167, these considerations were highly sensitive to future appropriations decisions by Congress and the President each fiscal year. Consequently, the extent to which the calculation for the disaster cap would have been affected by the use of the wildfire adjustment could not be definitively determined.

S. 508 also would have amended the FLAME Act. The agencies would have continued to have their FLAME accounts for the most severe, complex, and costly wildfires, but the declaration criteria to access those funds would have changed. The criteria would have been a minimum fire size of 1,000 acres (up from 300 acres) or that the fire had been within 10 miles of an urbanized area. The Secretaries still would have been able to access FLAME funds if their respective WFM suppression accounts were about to be depleted. S. 508 also would have prohibited the agencies from transferring funds from other accounts for suppression purposes.

S. 508 was the only bill to address suppression forecasts. S. 508 would have required FS and DOI to calculate and report the rolling five-year suppression obligation average and the out-year FLAME forecasts in their annual budget requests. The other bills continued the rolling 10-year suppression obligation average.

Legislative Action

S. 508 did not receive any congressional action prior to the end of the 114th Congress. See the S. 235 and H.R. 167 "Legislative Action" subsection, above, for a discussion of action related to the wildfire management budget requests, the FY2016 budget resolution, and FY2016 and FY2017 Interior appropriations.

Table 5. Comparison of Selected Attributes of H.R. 167, S. 235, and S. 508 (114th Congress)

Select Provisions	H.R. 167	S. 235	S. 508
Added an adjustment for wildfire spending that was effectively not subject to statutory discretionary limits	Yes	Yes	Yes
Precondition(s) for adjustment	Yes 70% 10-yr suppression obligation average must be appropriated within discretionary statutory limits annually	Yes 70% 10-yr suppression obligation average must be appropriated within discretionary statutory limits annually	Yes The maximum of: • 100% 5-yr suppression obligation average; or • FLAME upper 90% CI must be appropriated within discretionary statutory limits annually An amount equal to at least 50% of the above amount must also be appropriated for specified forest management activities Funds in FLAME account must be expended
Maximum adjustment	$2.689 billion/FY through FY2023	Increased annually: $1.410 billion FY2016 to $2.690 in FY2025	$1 billion/FY through FY2022
Interacted with disaster cap adjustment/DRF formula	Yes	Yes	Yes
Suppression Forecasting	Required that the 10-yr suppression obligation average continue to be used for suppression budgeting	Required that the 10-yr suppression obligation average continue to be used for suppression budgeting	Required that the 5-yr suppression obligation average be used for suppression budgeting
Fire Transfers	Not addressed	Not addressed	Prohibited

Source: CRS.

H.R. 2647 (The Resilient Federal Forests Act of 2015)

The Resilient Federal Forests Act of 2015 was introduced in the 114th Congress as H.R. 2647 and referred to the House Committees on Agriculture and Natural Resources. The bill passed the House on July 9, 2015, and was referred to the Senate Committee on Agriculture. This section of the report provides an analysis of the wildfire suppression provisions contained in Title IX of the measure.[96] (H.R. 2647 also contained additional titles addressing other federal forestry issues, which are not discussed in this report.)

[96] See U.S. Congress, House Committee on Rules, *Text of* H.R. 2647, *Resilient Federal Forests Act of 2015*, committee print, 114th Cong., 1st sess., July 1, 2015, H.Prt. 114-21.

Summary

Title IX of H.R. 2647 would have broadened the purposes for major disasters under the Stafford Act to include "wildfires on federal lands" (§901),[97] and it would have created a related budgetary mechanism that potentially could have been used to fund the response to each wildfire on federal land that had been declared to be a major disaster (§902). Under this proposal, the affected federal land management agency (either the DOI Secretary or the USDA Secretary) could request a presidential declaration of a major disaster for wildfire on federal lands if the following requirements were satisfied:

- The Secretary made the request in writing.
- The Secretary certified that wildfire suppression operations appropriations that had been enacted for that fiscal year equaled or exceeded a certain minimum level, which was the rolling 10-fiscal-year average cost of wildfire suppression operations incurred by the federal land management agencies. This minimum level included any concurrently enacted rescissions. The unobligated balance of wildfire suppression operations funding, presumably from previous fiscal years, also could be credited to that minimum level for the purposes of this requirement.[98]
- The Secretary certified that the amount available to the agency for anticipated and ongoing suppression operations for the wildfire on which the declaration request had been made would be obligated not later than 30 days after the notification.
- The Secretary specified the amount of the current fiscal year funds required for suppression operations related to the wildfire for which the declaration was requested.

Title IX of H.R. 2647 would have required that the President establish a specific account from which available funds could be transferred to the DOI Secretary or USDA Secretary to conduct wildfire suppression operations if a declaration of a major disaster had been made.[99] This account could be used only to fund assistance for major disaster declarations for wildfires on federal lands and nonfederal lands pursuant to a fire protection agreement or cooperative agreement. The bill would have established reimbursement procedures from the nonfederal entity if any of the funds transferred from this account were used for wildfires on nonfederal lands under a fire protection agreement. This account could be funded in anticipation of one or more such major disasters, or in response to them, through regular or supplemental appropriations.

Within 90 days after the end of a fiscal year in which a major disaster for wildfire on federal lands had been declared, the affected Secretaries would have been required to submit reports detailing their wildland fire management decisions and cost expenditures to several congressional committees. These reports were required to include the risk-based factors that influenced management decisions; an analysis of the effectiveness of management decisions and cost factors across a statistically significant sample of large fires; suppression operations expenditures broken

[97] Currently, "fire" is an eligible event under the Stafford Act. This proposal extends that authority to federal lands.

[98] It is not clear as of what date during the fiscal year that the amount of these unobligated balances were to be calculated for the purposes of this precondition.

[99] In the case of each declaration for which a transfer of funds is to occur, the President has the authority to decide where to establish the account. In addition, the amount of the transfer is limited to the amount that was requested by the agency as part of the request for the disaster declaration, and shall not exceed the amount in the account.

out by fire size, cost, regional location, and other factors as deemed appropriate by each Secretary; and lessons learned.

Section 903 of H.R. 2647 would have prohibited the agencies from transferring funds from their other accounts for suppression purposes, potentially eliminating the agencies' fire borrowing.

Potential Implications

The budgetary mechanism under this proposal potentially could have provided an additional discretionary spending option for wildfire suppression operations funding related to the disaster relief designation. As previously discussed, spending designated as "disaster relief," which is effectively exempt from the BCA limits, may be provided only for activities carried out pursuant to a determination of a major disaster under Section 102(2) of the Stafford Act.[100] Because H.R. 2647 would have amended the Stafford Act to include wildfires on federal land as an incident for which major disasters could be declared, these changes might have allowed appropriations for such activities to be disaster-designated under certain circumstances:

- First, the preconditions for requesting a major disaster declaration for wildfires on federal land would have to be fulfilled. These preconditions included a minimum level of budgetary resources for wildfire suppression operations, and that minimum amount would need to have been appropriated (and therefore would have been subject to the statutory discretionary spending limits).
- Second, even if disaster-designated funds were appropriated in anticipation of a major disaster for wildfires on federal lands, they could not be transferred and made available to the requesting agency until a major disaster had been declared by the President. They would not have been available to the agencies prior to that time.

In the contexts of their various budget enforcement responsibilities, the House and Senate Budget Committees, the Congressional Budget Office, and the Office of Management and Budget would have had to determine how the changes to the Stafford Act proposed by H.R. 2647 would have affected the BBEDCA disaster designation, if at all.

If the Stafford Act changes in Title IX of H.R. 2647 had led to the use of the disaster designation for additional wildfire suppression operations funding, these changes would have had implications for the future operation of that designation. In addition to allowing wildfires that meet certain criteria to be eligible for funding using the disaster designation, the calculation for the disaster cap would have only gradually incorporated appropriations for any major disaster declarations for wildfires on federal lands over the following 10 fiscal years. This would have had the potential to increase the competition for budgetary resources that could be provided using the designation. However, because appropriations for the full adjustment allowed by the disaster cap have not been made since FY2013, adding purposes to the designation might have caused more of the allowable adjustment to be used and factored into future disaster cap calculations. This might have had the effect of increasing the amount of disaster cap in future fiscal years above what it otherwise might have been. Because the amount available under the disaster designation is highly sensitive to future appropriations decisions, CRS cannot determine the extent to which the calculation for the disaster cap would have been affected by this expansion of Stafford Act purposes.

[100] Section 251(b)(2)(D) of the BBEDCA.

The bill also would have prohibited fire borrowing, although it was unclear if fire borrowing authorities would continue to be provided in appropriations laws. It was also unclear how H.R. 2647 would have impacted the agencies' budget formulation process. The precondition to appropriate a minimum amount was based on the rolling 10-year suppression obligation average, but the rescissions and unobligated balances might have complicated that calculation.

H.R. 2647 would have required the agencies to provide Congress and the public with reports analyzing cost expenditures and management decisions. These reporting requirements could have provided Congress—and the agencies—with more information on agency decisionmaking and spending to aid in future appropriations decisions and oversight. However, the development and production of these reports and the required analyses potentially could have required substantial investments from the agencies.

Legislative Action

H.R. 2647 passed the House on July 9, 2015, and was referred to the Senate Committee on Agriculture. Other legislation introduced in the 114th Congress contained provisions to address wildfire funding in a similar manner to Title IX of H.R. 2647. This legislation included S. 3085, the Emergency Wildfire and Forest Management Act of 2016, introduced on June 22, 2016, and the House version of S. 2012, the North American Energy Security and Infrastructure Act of 2016. S. 2012 was in conference to resolve differences between the House and Senate versions when the 114th Congress adjourned.[101]

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[101] For more information, see CRS Report R44569, *Energy Legislation: Comparable Provisions in S. 2012 as Passed by the House and Senate*, by (name redacted) and (name redacted)