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Army Corps Supplemental Appropriations: History, Trends, and Policy Issues

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Summary

Congress directs the U.S. Army Corps of Engineers (Corps) to plan and build water resource facilities through the agency's civil works program. The Corps also has a prominent role in responding to natural disasters, especially floods, in U.S. states and territories. In recent years through supplemental appropriations, Congress also has funded the agency to study and construct projects that reduce flood risks in areas recently affected by some hurricanes and floods. The 115th Congress is considering possible responses to various natural disasters in 2017. H.R. 4667—Further Additional Supplemental Appropriations for Disaster Relief Requirements, 2017 (as passed by the House)—proposes $12.09 billion for the agency's activities associated with response, repair, and recovery from natural disasters including Hurricanes Harvey, Irma, and Maria.

Policy Considerations. A common issue for Congress after a flood-related disaster is whether to provide supplemental funds directly to the Corps and, if so, how much and for which Corps activities. During its deliberations on recent supplemental appropriations bills, Congress also has considered whether to maintain requirements for nonfederal cost sharing, what requirements to include regarding reporting to Congress and public transparency associated with supplemental funds, and what type of flood damage-reduction efforts to support (e.g., repair of existing infrastructure, construction of new infrastructure). Supplemental Corps funding debates also may raise broader questions for policymakers. These include, for example, the effectiveness and efficiency of processes such as those for postdisaster supplemental appropriations and Corps annual budget development, especially in regard to identifying and supporting priority investments in reducing the nation's flood risk. Supporters of supplemental appropriations for the construction of Corps flood-risk reduction projects in natural disaster-affected areas view these projects as part of the broader recovery effort and as means to improve flood resilience of the affected areas. Other stakeholders would prefer more attention and funding that supports other programs and measures to reduce the nation's flood risks.

Supplemental Funds. From 2005 to 2016, Congress appropriated $31.4 billion in supplemental funding to the Corps; these funds amounted to almost half of the agency's annual discretionary appropriations over that same period. Of the $31.4 billion, $27.2 billion (87%) was for responding to flooding and other natural disasters. The majority of this funding related to Hurricane Katrina and other 2005 storms (approximately $16 billion) and to Hurricane Sandy in 2012 ($5.3 billion).

Supplemental bills most frequently fund two Corps accounts: Flood Control and Coastal Emergencies (FCCE; i.e., flood fighting, repairs to damaged nonfederal flood-control projects) and Operations and Maintenance (O&M; i.e., repairs to existing Corps projects). In some instances, principally since 2005, Congress also has provided supplemental funding for other Corps accounts, such as the Construction account. Of the supplemental funds that Congress provided to the Corps for Hurricanes Katrina and Sandy, 31% and 66%, respectively, were for construction activities. Of the $12.1 billion that H.R. 4667 would provide, $10.48 billion would be for activities in the agency's Construction account—$55 million for repairs to Corps construction projects damaged by natural disasters, and $10.425 billion for expedited construction of flood control and storm damage reduction projects in areas affected by Hurricanes Harvey, Irma, and Maria. That is, 86% of the funding for the Corps in H.R. 4667 would be for construction. For comparison, that amount would exceed the agency's $9.1 billion total discretionary spending appropriations for flood-related construction for the decade FY2008 to FY2017.

Conditions Applicable to Supplemental Funds. In supplemental appropriations bills, Congress has at times maintained, and at other times waived, local cost-sharing requirements for Corps flood-risk reduction construction projects. The standard nonfederal cost shares range from 35% to 50%, depending on the activity. H.R. 4667 would waive the nonfederal cost share for studies and ongoing construction funded through the bill. The bill also would provide the Secretary of the Army with the authority to use funds from the bill, subject to approval by the House and Senate Appropriations Committees, to initiate construction on projects that have completed the agency's multistep project development process without project-specific congressional construction authorization.

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Introduction

Under its civil works program, the U.S. Army Corps of Engineers (Corps) plans, builds, operates, and maintains a wide range of water resource facilities. The Corps also undertakes flood-fighting activities and other natural disaster response activities. These emergency activities have been authorized by Congress and generally have been funded by supplemental appropriations, which have been significant relative to Corps discretionary appropriations since 2005.

From 1987 to 2016, Congress has appropriated approximately $33.2 billion in Corps supplemental appropriations. Of this total, Congress provided $31.4 billion from 2005 to 2016, which was significant relative to the agency's regular (i.e., nonsupplemental) annual discretionary appropriations over that period (approximately $63.8 billion for FY2005 through FY2016).

If supplemental bills provide funds to the Corps, they most frequently fund two accounts: Flood Control and Coastal Emergencies (FCCE; i.e., flood fighting, repairs to damaged nonfederal flood-control projects) and Operations and Maintenance (O&M; i.e., repairs to existing Corps projects). In some instances, principally since 2005, Congress also has provided supplemental funding for other Corps accounts, such as the Mississippi River and Tributaries (MR&T) account and the Construction account. Of the supplemental funds that Congress provided to the Corps for Hurricanes Katrina and Sandy, 31% and 66%, respectively, were for construction activities. Congress also provided the agency with $4.6 billion as part of the American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5).

In the wake of major flooding and other natural disasters, Congress often considers whether to provide supplemental appropriations to the Corps and other agencies. Proponents of providing supplemental funding for the Corps argue that these investments are significant for recovery efforts and improve flood resilience of the affected areas. Congress may provide these funds with special considerations (e.g., designated as emergency funding and not requiring budgetary offsets; waiving nonfederal cost-share requirements). Others argue that the annual appropriations process is the more appropriate forum for deciding on significant federal flood-damage reduction investments, contending that postdisaster investments should be subject to the same project-development and cost-sharing requirements as other similar Corps projects and should compete in the agency's annual budget-development process. Other stakeholders would prefer more attention and funding that supports other programs and measures to reduce the nation's flood risks. (For an overview of federal flood-related assistance programs, see CRS Report R45017, *Flood-Risk Reduction and Resilience: Federal Assistance and Programs*, by Nicole T. Carter et al.)

This report analyzes Corps supplemental funding. The report focuses on supplemental funding provided directly to the Corps from 1987 to 2016, as well as recently proposed supplemental funding in H.R. 4667—Further Additional Supplemental Appropriations for Disaster Relief Requirements, 2017 (as passed by the House).[1] The report does not include extensive analysis of annual Corps discretionary appropriations or supplemental appropriations for other agencies. Apart from Corps disaster response, the Federal Emergency Management Agency (FEMA) has extensive authority to assist and coordinate disaster response actions under the National Response

[1] H.R. 4667 as passed by the House (§2009(b)) also would allow for the Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program (HMGP) funds to be used toward the federal portion of the total cost of authorized Corps construction projects if the Corps projects qualify as eligible activities under HMGP. That is, the provision would allow for HMGP funds (in addition to federal funding provided directly to the Corps) to be used on authorized Corps projects. The provision would apply to HMGP broadly and would not be limited to the funds provided by H.R. 4667. For more on these FEMA programs, see CRS Report R45017, *Flood-Risk Reduction and Resilience: Federal Assistance and Programs*, by Nicole T. Carter et al.

Framework, and FEMA receives significant regular and supplemental appropriations for this work.[2] Although the Corps performs work under some mission assignments for FEMA (i.e., funded by FEMA, under direction of the President and FEMA), that work is not addressed in this report.

Supplemental Funding of Corps Accounts

The majority of natural disaster-related supplemental appropriations generally are placed into one of the following four Corps budget accounts based on the type of activity funded.

Flood Control and Coastal Emergencies Account

The FCCE account is the primary account through which the Corps funds disaster-related activities. The primary activities funded under FCCE are flood fighting (e.g., sandbagging), emergency preparedness and response, and repair of damaged nonfederal flood and hurricane protection projects.[3] Congress authorized the Corps in the Flood Control Act of 1941 (33 U.S.C. §701n) to assist in flood fighting and flood response. The Corps can assist in flood fighting at the discretion of its Chief of Engineers to protect life and property, principally when state resources are overwhelmed. Congress also authorized the Corps to operate the Rehabilitation and Inspection Program (RIP, also known as the P.L. 84-99 program) to fund the repair of participating nonfederal flood-control works (e.g., levees, dams, dunes) damaged by natural events. Repairs under this program are funded by the agency's FCCE account. Congress also has directed the Corps to use supplemental funds to repair and rebuild federally owned flood-control and other projects (e.g., navigation projects) through the agency's O&M and Construction accounts.

In the event of an emergency, Congress has given the Secretary of the Army (generally delegated to the Assistant Secretary of the Army [Civil Works]) discretion to transfer from existing appropriations the monies necessary for the emergency work referenced above, until funds become available in the applicable account through supplemental appropriations or other avenues.[4] In recent floods, the Corps has exercised this authority to transfer regular annual appropriations from ongoing projects (i.e., projects funded by annual appropriations) to pay for emergency actions. The Corps has then internally reimbursed itself for this funding once supplemental appropriations have become available.

Operations and Maintenance Account

The O&M account funds activities related to existing Corps projects, including upkeep of physical infrastructure and other activities (i.e., dredging of ports and waterways). Common disaster activities funded under this account include repair of damaged federally operated flood

[2] For more on FEMA's coordinating role, see CRS Report R41981, *Congressional Primer on Responding to Major Disasters and Emergencies*, by Jared T. Brown, Bruce R. Lindsay, and Jaclyn Petruzzelli.

[3] The Corps may receive annual appropriations in the Flood Control and Coastal Emergencies (FCCE) account in anticipation of natural disasters. However, Congress generally has not provided funding for the Corps in advance of major disasters; instead, the majority of FCCE funding has come through supplemental appropriations. Since 2003, the FCCE account has received a total of $68 million in regular annual appropriations. Congress provided the Corps with funding for the FCCE account in regular appropriations in FY2012 ($112 million), 2013 ($26 million), 2014 ($28 million), and 2015 ($28 million). Prior to FY2012, no regular appropriations had been provided for the FCCE account since FY2003.

[4] 33 U.S.C. §701n.

and hurricane protection projects (e.g., dams, levees, floodwalls) and dredging of authorized federal navigation channels.

Mississippi River and Tributaries Account

The MR&T account consists of flood-control and navigation projects for the lower Mississippi River Valley. Supplemental expenditures under this account consist primarily of repair to damaged MR&T levees, floodways, and other project features.

Construction Account

The Construction account funds new project construction and major upgrades to existing projects (e.g., significant dam repairs). Supplemental construction funding has been used at times to improve existing Corps coastal and riverine flood-risk reduction projects and for new Corps construction projects to reduce flood risks.

Analysis of Corps Supplemental Appropriations

Congress previously has provided the Corps with approximately $33.2 billion (nominal dollars) in supplemental funding in 26 laws enacted between 1987 and 2016.[5] It is considering legislation, principally H.R. 4667, that would provide the Corps an additional $12.09 billion in supplemental appropriations for the agency's activities associated with response, repair, and recovery from natural disasters including Hurricanes Harvey, Irma, and Maria in 2017. This section discusses enacted Corps supplemental appropriations, as well as Corps supplemental funding proposed in H.R. 4667 in the 115th Congress. It also discusses common issues that policymakers consider in deliberating on these supplemental appropriations bills.

Table 1 shows account-level funding in enacted Corps supplemental appropriations bills and in H.R. 4667. Of the $33.2 billion in enacted supplemental appropriations legislation, most of this amount ($31.4 billion) was provided in 12 appropriations laws enacted between 2005 and 2016. Adjusting prior-year appropriations for inflation, Congress provided the Corps with approximately $38 billion (in 2016 dollars) in supplemental appropriations between 1987 and 2016. Of this total, 92% was provided between 2006 and 2016. Enacted Corps supplemental appropriations and H.R. 4667 also are shown by year in **Figure 1**.

The discussion below differentiates between five primary types of supplemental funding that the Corps received or the 115th Congress is considering:

- funding for the 2005 hurricanes;
- funding for Hurricane Sandy response and recovery;
- funding for "all other" floods, hurricanes, and other natural disasters;
- funding for other nondisaster purposes, such as economic recovery and facility security; and
- funding proposed in H.R. 4667 (as passed by the House) for natural disasters including Hurricanes Harvey, Irma, and Maria.

Separately, the **Appendix** lists the disaster events that were explicitly referenced in enacted Corps supplemental appropriations from 2003 to 2016 and in H.R. 4667.

[5] CRS analysis using enacted supplemental appropriations bills and data provided by the Corps.

Table 1. Account Funding for Corps Supplemental Appropriations (1987-2016) and H.R. 4667 (115th Congress)

(nominal dollars in millions)

Public Law (Year Enacted) or Bill Number	General Expenses	Investi-gations	Const.	MR&T	O&M	FCCE	FUS-RAP	Total
H.R. 4667 (House-passed)	20	75	10,480	370	608	537	—-	**12,090**
P.L. 114-254 (2016)	—	—	55	291	260	420	—	**1,026**
P.L. 113-2 (2013)	10	50	3,461	—	821	1,008	—	**5,350**
P.L. 112-77 (2011)	—	—	—	802	534	388	—	**1,724**
P.L. 111-212 (2010)	—	5	—	19	173	20	—	**217**
P.L. 111-32 (2009)	—	—	—	—	43	754	—	**797**
P.L. 111-5 (2009)	—	*25*	*2,000*	*375*	*2,075*	—	*100*	***4,575***
P.L. 110-329 (2009)	—	—	1,539	82	740	416	—	**2,777**
P.L. 110-252 (2008)	2	—	2,897	18	298	3,153	—	**6,367**
P.L. 110-28 (2006)	—	8	36	—	3	1,562	—	**1,609**
P.L. 109-234 (2006)	—	3	549	—	3	3,145	—	**3,700**
P.L. 109-148 (2006)	2	37	101	154	328	2,278	—	**2,899**
P.L. 109-62 (2005)	—	—	—	—	200	200	—	**400**
P.L. 108-324 (2004)	—	—	63	6	145	148	—	**362**
P.L. 108-83 (2003)	—	—	—	—	—	60	—	**60**
P.L. 108-11 (2003)	—	—	—	—	*39*	—	—	***39***
P.L. 107-206 (2002)	—	—	—	—	108	—	—	**108**
P.L. 107-20 (2001)	—	—	—	—	87	50	—	**146**
P.L. 106-246 (2000)	4	3	—	—	—	—	—	**7**
P.L. 105-174 (1998)	—	—	—	—	105	—	—	**105**
P.L. 105-18 (1997)	—	—	—	20	150	415	—	**585**
P.L. 104-134 (1996)	—	—	—	—	30	135	—	**165**
P.L. 104-208 (1996)	—	—	—	—	19	—	—	**19**
P.L. 103-211 (1994)	—	—	—	—	—	70	—	**70**
P.L. 103-50 (1993)	—	—	1	—	—	—	—	**1**
P.L. 102-368 (1992)	—	—	—	3	3	40	—	**46**
P.L. 101-302 (1990)	15	—	—	—	40	20	—	**75**
Total Supplemental Funds 1987-2016 (plus H.R. 4667)	***28*** (48)	***133*** (208)	***10,705*** (21,185)	***$1,778*** (2,148)	***6,204*** (6,812)	***14,281*** (14,818)	***100*** (100)	***33,230*** (45,320)

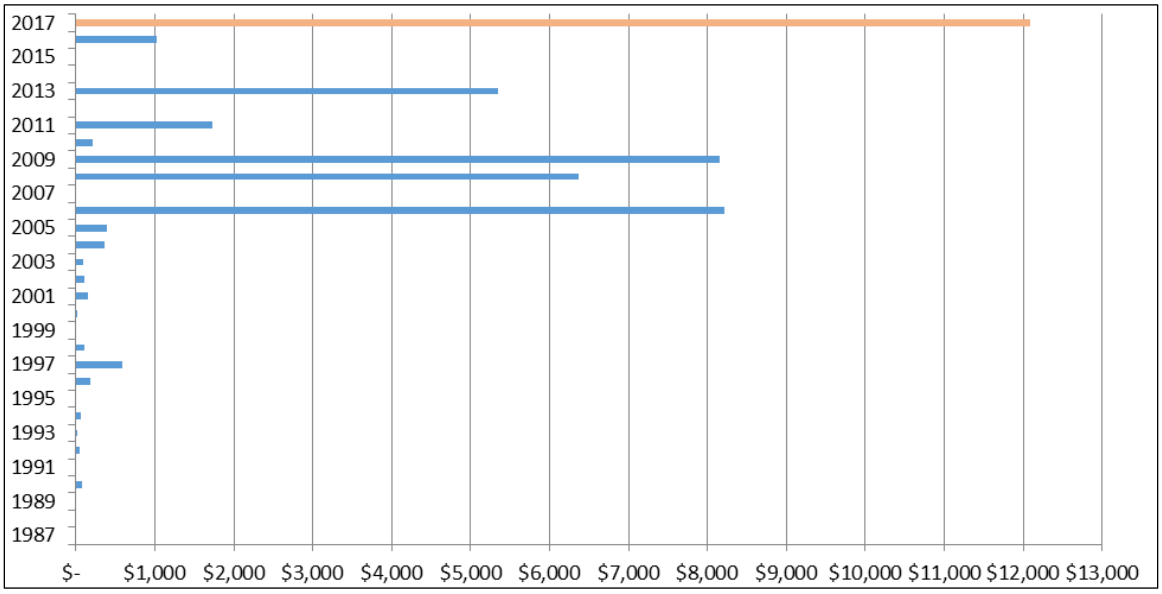
Source: Appropriations bills compiled by the Congressional Research Service (CRS).

Notes: Amounts do not include rescissions, transfers, or other reductions. Italicized lines indicate supplemental funding for purposes other than natural disasters (the American Recovery and Reinvestment Act [ARRA; P.L. 111-5], was provided for economic recovery, and P.L. 108-11 was provided for facility security upgrades).

Const.= Construction; MR&T = Mississippi River and Tributaries; O&M = Operations and Maintenance; FCCE = Flood Control and Coastal Emergencies; FUSRAP = Formerly Utilized Sites Remedial Action Program.

Figure 1. Corps Enacted Supplemental Appropriations (1987-2016) and Funding Proposed in H.R. 4667 (115th Congress)

(nominal dollars in millions)

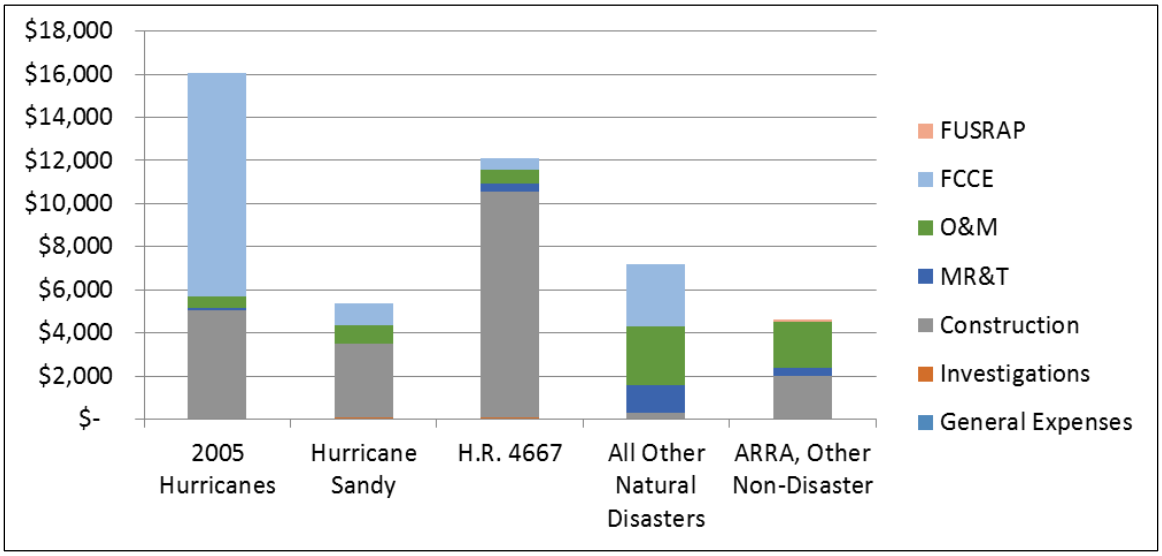


Source: CRS analysis of enacted supplemental appropriations bills and H.R. 4667.

Notes: Amounts do not include rescissions, transfers, or other reductions to initial appropriations. Amounts reflect both natural disasters and other supplemental appropriations (e.g., ARRA in 2009). The amount that H.R. 4667 (as passed by the House) would provide if enacted is shown in orange in 2017.

Figure 2. Corps Supplemental Appropriations: Distribution by Account for Enacted Supplemental Bills and Funding Proposed in H.R. 4667

(1987-2016, nominal dollars in millions)



Source: CRS estimates based on various appropriations acts and data from the Corps.

Notes: FUSRAP = Formerly Utilized Sites Remedial Action Program.
FCCE = Flood Control and Coastal Emergencies account.
O&M = Operations & Maintenance account.
MR&T = Mississippi River and Tributaries account.

2005 Hurricanes

As noted above, the 2005 hurricanes (primarily Hurricane Katrina) account for much of Corps supplemental appropriations since 2003. The $16 billion received for these storms is more than three times the size of the agency's annual civil works budget. These appropriations were provided in six separate supplemental appropriations bills passed between 2005 and 2009, and most of these funds were designated for rebuilding and in some cases significantly strengthening Corps facilities, principally in Southeast Louisiana. Approximately 94% of the supplemental funds appropriated for Corps hurricane response and recovery went to activities in Louisiana,[6] including $14.5 billion for protective measures in Southeast Louisiana. These funds were used for significant repair and strengthening of 350 miles of levees and floodwalls in New Orleans and new surge-protection barriers, including the Inner Harbor Navigation Canal Surge Barrier, which is one of the largest surge barriers in the world.

Although the federal government funded 100% of the costs of FCCE and O&M infrastructure in Southeast Louisiana, most of the supplemental funds for construction projects were subject to federal-nonfederal cost-sharing requirements (generally a 65/35 federal/nonfederal split). That is, the state of Louisiana is contributing $1.7 billion, consisting of $0.2 billion for real estate acquisition and $1.5 billion for the state's cash-share contribution, for its share of the $5.0 billion in improvements funded through supplemental appropriations to the Corps Construction account. Under a specially negotiated arrangement, Louisiana's cash contribution initially was provided through federal appropriations and is being repaid over 30 years.[7]

Hurricane Katrina significantly damaged the Mississippi coast. In contrast to the congressional response to fund hurricane-protection construction through supplemental appropriations for Southeast Louisiana, Congress directed the Corps to develop a plan for how to protect coastal Mississippi. As part of a supplemental appropriations bill for the Corps (P.L. 109-148), Congress directed the Corps to design comprehensive improvements and modifications to Mississippi coastal counties to provide hurricane protection, prevent erosion, preserve fish and wildlife habitat, and achieve other purposes. This effort is known as the Mississippi Coastal Improvements Program (MsCIP). In a 2009 supplemental bill (P.L. 111-32), Congress authorized and funded $439 million in Corps FCCE activities under this program. The agency's final MsCIP plan was submitted to Congress for authorization in January 2010. Congress in the Water Resources Reform and Development Act of 2014 (P.L. 113-121) authorized an additional $1.07 billion in MsCIP activities based on the final plan. These projects were planned in compliance with the standard 65% federal and 35% nonfederal cost share for this type of Corps construction project. Because Congress designated most of these funds for Hurricane Katrina recovery, the funds are generally not available to other projects or emergencies.[8]

[6] CRS analysis of data provided by the Army Corps of Engineers, July 2009.

[7] Testimony by L. G. Robert Van Antwerp, Chief of Engineers, before U.S. Congress, Senate Committee on Homeland Security and Governmental Affairs, Ad Hoc Subcommittee on Disaster Recovery, *Five Years Later: Examination of Lessons Learned, Progress Made, and Work Remaining from Hurricane Katrina*, 111th Cong., 2nd sess., August 26, 2010.

[8] Ongoing work in the region includes projects to reduce urban flood damage, nonfederal levee improvements, and work on the outfall canals into Lake Pontchartrain.

Hurricane Sandy, 2012

The second-largest enacted supplemental appropriation for the Corps was through the Disaster Relief Appropriations Act of 2013 (P.L. 113-2), for response and recovery related to Hurricane Sandy's 2012 landfall. The act provided $5.35 billion in supplemental appropriations to address damages caused by Hurricane Sandy and to reduce future flood risks in the areas impacted by the storm. Generally, funding under the O&M and FCCE accounts ($821 million and $1.008 billion, respectively) was to "address the consequences" of Hurricane Sandy. The majority of funding appropriated to the Construction account ($2.9 billion of $3.4 billion in this account) was set aside to "reduce future flood risks in ways that will support the long-term sustainability of the coastal ecosystem and communities and reduce the economic costs and risks associated with large-scale flood and storm events ... within the boundaries of the North Atlantic Division of the Corps that were affected by Hurricane Sandy."[9]

Among other things, P.L. 113-2 allowed for the repair of damaged projects to prestorm conditions and for the restoration of some projects to their authorized "design profiles" (i.e., their original construction designs). Additionally, Congress made available funding in the Construction account for new construction projects (i.e., projects that were undergoing study or authorized for construction prior to the storm) but made release of this funding dependent on the Corps publishing certain interim reports also required under the legislation.[10] Finally, the legislation waived cost-sharing requirements for ongoing construction projects (although it provided no such waiver for the aforementioned new construction projects).[11]

Other Flooding and Natural Disasters

Outside of the aforementioned three sections (funding for response and repair related to the 2005 hurricane season, the 2013 landfall of Hurricane Sandy, and other nondisaster supplemental appropriations), between 1987 and 2016 Congress provided the Corps with approximately $7.1 billion to respond to various other natural disasters (e.g., riverine and coastal flooding). The vast majority of this funding was provided between 2005 and 2016.

A considerable portion of the funding for these other flood events was for Corps actions under the O&M account and the FCCE account (38% and 40%, respectively); the MR&T account received roughly 17% of these appropriations, as shown in **Figure 2**. Other than funding for Hurricane Sandy, the other most recent supplemental appropriation for the Corps (P.L. 114-254), passed in December 2016, is included in this category. That appropriation focused on repair to Corps facilities in response to flooding in Louisiana and in Florida (although neither state was explicitly referenced in the enacted legislation); the majority of these funds were for the MR&T and O&M accounts (specific account totals are available in Observations on Corps Supplemental Funding).

Other Supplemental Appropriations: ARRA and Facility Security

The Corps also has received supplemental funds for maintenance and facility upgrades. Specifically, the Corps received funding for facility security upgrades in 2002 and 2003 following the terrorist attacks of 2001. It also received funding for facility upgrades (including more than $2

[9] See P.L. 113-2, Title II.

[10] These reports are available at U.S. Army Corps of Engineers, "Sandy-Related USACE Reports to Congress," at http://www.nan.usace.army.mil/About/Hurricane_Sandy/SandyRelatedUSACEReportstoCongress.aspx.

[11] Similar to construction appropriations for the 2005 storms, those projects that do not have their local cost-share requirements waived are eligible to finance these requirements under a 30-year term.

billion in the O&M account) and new project construction ($2 billion in the Construction account) under ARRA. A combined breakdown of this non-natural-disaster-related supplemental funding is provided in **Figure 2**.

H.R. 4667: Hurricanes Harvey, Irma, and Maria, 2017

Other than the combined total appropriations to support response, repair, and recovery from the 2005 hurricanes, H.R. 4667, if enacted, would provide the largest supplemental appropriation for the Corps. Further, it would be the largest appropriation for the Corps in a single bill in the history of the agency. This funding, if provided, would go toward response and repair activities for natural disasters and for study and construction work on reducing flood risks in the areas impacted by Hurricanes Harvey, Irma, and Maria. The bill would provide the Corps $12.09 billion in supplemental appropriations. Like most supplemental appropriation bills with direct appropriations for the Corps, the bill would fund the agency's emergency response activities and repair of damage to flood-control works and other Corps civil works projects (e.g., navigation); these response and repair activities would be funded as follows: $537 million for natural disasters through the FCCE account, $608 million for natural disaster-related repairs through the O&M account, $370 million for natural disasters through the MR&T account, and $55 million for natural disaster-related repairs to Corps construction projects through the Construction account. H.R. 4667 would allow for the Construction account funds to be used not only for the repair of damaged projects to prestorm conditions but also for the restoration of some projects to their authorized "design profiles" (i.e., their original construction designs).[12]

The majority of the Corps funding in H.R. 4667—$10.425 billion (86% of the $12.09 billion)—would be for construction of Corps flood-control and storm-damage reduction projects in the areas affected by Hurricanes Harvey, Irma, and Maria. For comparison, Congress directed 31% and 65% of the Corps supplemental funding for Hurricanes Katrina and Sandy to Corps construction of flood-risk reduction projects. While the Corps repair funding is for natural disasters broadly, the $10.425 billion and the $75 million for Corps studies in the Investigations account are limited to the areas affected by Hurricanes Harvey, Irma, and Maria. The studies and the ongoing Corps construction projects that would receive funds from the Construction account through the bill would proceed at full federal expense (i.e., no nonfederal cost-share requirement).

The standard process for Corps projects is that after the completion of a multistep project development process (which includes, among other measures. a completed feasibility study and environmental documentation and a report by the agency's Chief of Engineers known as a Chief's Report), Congress authorizes the project's construction in a Water Resources Development act. H.R. 4667 would provide the Secretary of the Army authority to use funds from the bill to initiate construction on projects that have completed the agency's multistep project development process without obtaining project-specific congressional construction authorization, subject to approval by the House and Senate Appropriations Committees.[13] Similar authority was provided to the Secretary for the use of the Corps funds from the Hurricane Sandy supplemental appropriation. The granting of this authority provides for a project to be initiated without project-specific congressional authorization.

[12] In H.R. 4667, this authority would be provided for the funds in the Construction account, whereas the Hurricane Sandy supplemental appropriation provided this authority for those activities funded through the agency's FCCE account.

[13] The authority appears to be limited to projects in areas impacted by Hurricanes Harvey, Irma, and Maria; it also appears that it may apply to projects with a Chief's Report completed after the bill's enactment.

Common Considerations Related to Corps Supplemental Funding

Given current federal fiscal constraints and the multiple natural disasters that have occurred in recent years, the enactment of and reliance on emergency supplemental funding is receiving more attention. For Corps natural disaster supplemental funding, some of the topics receiving attention include the following:

- transparency of natural disaster funding;
- use of supplemental bills for postdisaster infrastructure improvements; and
- nonfederal cost sharing of natural disaster repair and recovery.

Each of these topics is discussed below.

Transparency of Natural Disaster Funding

After the initial appropriation, public reporting on Corps expenditure of supplemental funding has generally been limited.[14] There are very few overarching requirements for public reporting on Corps supplemental expenditures, including the amount and extent of transfers from annual discretionary appropriations to initially cover emergency response and repairs and the project-level descriptions and funding data on expenditures of supplemental appropriations. In some of the early post-Katrina supplemental bills and in the Sandy supplemental appropriations bill, Congress set reporting requirements for Corps appropriations, including regular reports to the Committee on Appropriations. For annual discretionary appropriations, project-level data are available through congressional reports and in recent years through agency work plans that follow shortly after enacted appropriations.

Additionally, as noted above, Congress conditioned release of some of the Corps construction funding in the Sandy supplemental bill on the Corps completing and releasing information on projects that qualified for these funds. However, outside these reports and ARRA spending (which was tracked through a public website), detailed data on Corps expenditures of supplemental appropriations have not been required or widely available in the same manner as the annual budget.

Postdisaster Infrastructure Improvements

Congress is faced with deciding whether to use Corps supplemental funding for improving flood protection in impacted areas to reduce future flood risk. Congress funded Corps infrastructure investments to improve hurricane storm protection infrastructure for Southeast Louisiana in post-Katrina supplemental bills. Also 65% of the $5.3 billion in supplemental funding provided to the Corps for Hurricane Sandy recovery was designated for new or ongoing construction to reduce flood risks. However, Congress did not use supplemental Corps construction funds for such improvement for the 2008 Hurricane Ike-impacted Texas coast, the Midwest areas impacted by the 2011 and 1993 floods, or the 1992 Hurricane Andrew-impacted areas.

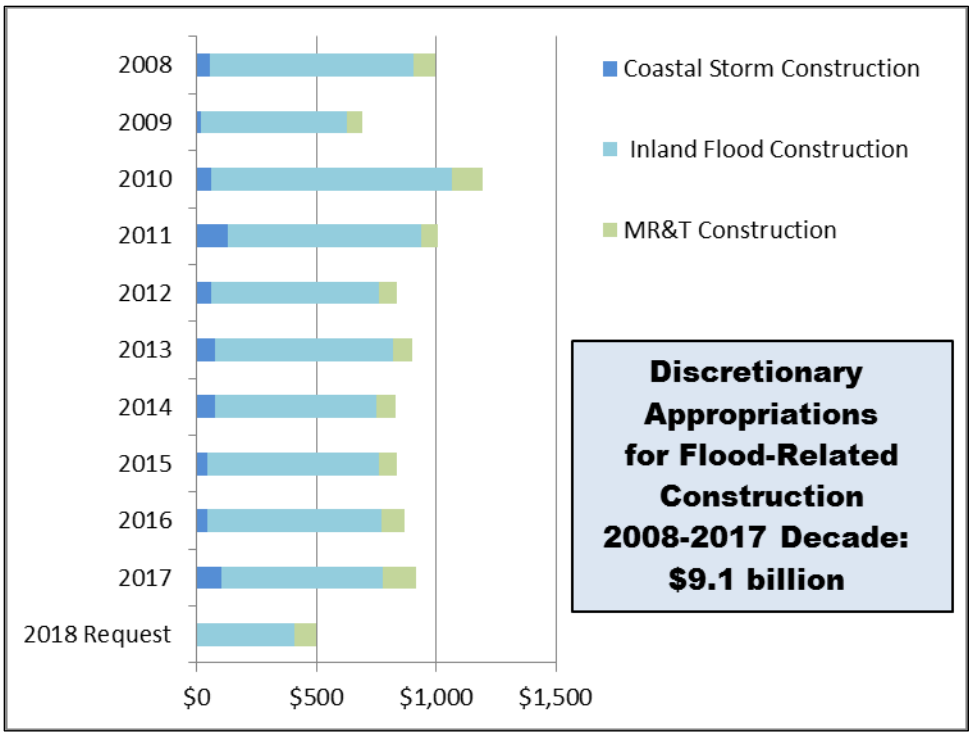
Proponents of supplemental construction funds for flood-impacted areas argue that these investments are significant to the recovery effort and that flooding events often bring to light flood risks warranting attention. Others argue that the annual appropriations process is the appropriate forum for identifying national priorities for federal flood-infrastructure investments. The Corps has a backlog of authorized flood and storm damage-reduction projects across the country; these authorized projects compete for the less than $1 billion typically provided for

[14] Reporting to congressional authorizing and appropriations committees has been regularly required in these bills.

flood-damage reduction activities in the annual discretionary budget process. Over the decade from FY2008 to FY2017, discretionary appropriations for Corps flood-related construction activities averaged $907 million annually; total funding for the decade was $9.1 billion. **Figure 3** provides data on flood-related construction spending using annual appropriations. A portion of the spending shown is for major rehabilitation activities of existing Corps facilities, such as dam repair. Therefore, the discretionary appropriations spent on new construction over the FY2008-FY2017 decade would be lower than $9.1 billion.

Figure 3. Corps Flood-Related Construction Funding from Annual Discretionary Appropriations FY2009 to FY2018 (Request)

(dollars in millions, nominal)



Source: CRS using data from Corps.

Notes: MR&T = Mississippi River and Tributaries. Estimate for MR&T construction for FY2008 was not available; $89 million was assumed for FY2008, which is the average of MR&T construction from FY2009 to FY2017.

Nonfederal Cost Sharing of Natural Disaster Repair and Recovery

Although many Corps civil works activities are cost shared with nonfederal sponsors, much of the supplemental appropriations for flood fighting and repair of damaged infrastructure and projects have not been subject to significant cost sharing. In addition to these activities, Congress occasionally has provided funding for upgrades and construction of new infrastructure in supplemental appropriations. Congress provided supplemental appropriations for construction activities to improve infrastructure in areas affected by Hurricane Katrina, particularly in Louisiana. These construction activities generally have been cost shared either at the standard nonfederal cost shares shown in **Table 2** or consistent with the cost-sharing arrangement for the original Corps project. For supplemental appropriations related to Hurricane Sandy, cost-sharing requirements were waived for ongoing construction projects but not for new construction.

Table 2. Federal Cost Shares Requirements for New Corps Flood-Risk Reduction Projects

(apply unless waived or project-specific cost share specified in statute)

Project Purpose	Feasibility Study	Maximum Federal Share of Construction	Maximum Federal Share of O&M
Inland flood-risk reduction	50%	65%	0%
Coastal hurricane and storm damage reduction (except periodic beach renourishment components)[a]	50%%	65% (50% of renourishment costs for 50 years)	0% 0%

Source: CRS, using 33 U.S.C. §2213 and 42 U.S.C. §1962d-5f.

Notes: O&M = Operations and Maintenance, including repair and rehabilitation. Part of the nonfederal construction cost is typically fulfilled by the nonfederal sponsor providing the lands, easements, rights-of-way, relocations, and disposal areas (known collectively as LERRDs; 33 U.S.C. §2213).

a. Many Corps coastal storm damage reduction projects include engineered beaches or dunes that require regular periodic renourishment (i.e., the placement of sand to replace sand that has moved elsewhere); these renourishments often occur at regular intervals between 3 and 10 years depending on the project, or as needed to maintain the flood-risk reduction benefits of the Corps project. Generally, these renourishment activities are considered ongoing construction and funded 50% from the agency's Construction account.

The appropriate cost share for Corps construction activities has been the subject of debate, with proposals ranging from standard cost shares to requirements for the federal government to handle most or all of a project's costs. Some also have proposed relaxing cost-sharing requirements for specific project types (e.g., cost-sharing waivers for ongoing construction projects, as noted above) and changing what costs should be counted toward the nonfederal share.

Various justifications for altering the standard arrangement have been advanced, including the potentially limited ability of many communities impacted by disasters to pay the standard nonfederal share. Assuming some sort of nonfederal cost share is required, another issue is who is responsible for the nonfederal share and the time period over which that share will be repaid. In the case of Louisiana, Congress required that Louisiana create a single state or quasistate entity to act as its nonfederal construction partner for post-Katrina Corps repairs and improvements and allowed the entity 30 years to repay its share of the construction costs (which was covered by the federal government with funds provided in P.L. 109-148).

The status of other existing cost-sharing requirements, such as those that apply to navigation projects, as they relate to supplemental funding also is common issue. Although certain categories of funding for federal navigation projects normally require cost sharing from the Harbor Maintenance Trust Fund (HMTF) and the Inland Waterway Trust Fund (IWTF), similar cost-sharing arrangements generally have not been required for supplemental funding for natural disasters.[15] That is, neither of these two trust funds has been responsible for navigation-related natural disaster response and recovery costs funded in supplemental appropriations over the last decade. However, a few supplemental appropriations bills in the late 1990s required cost sharing from the HMTF.[16] H.R. 4667 would require that HMTF funds (rather than the funds derived from

[15] Cost-sharing requirements for the Inland Waterway Trust Fund also were waived for nondisaster supplemental appropriations provided in the American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5).

[16] P.L. 105-174 (1998) and P.L. 105-18 (1997) both required applicable costs to be shared with the Harbor Maintenance Trust Fund, in accordance with existing statute. This requirement made the supplemental appropriation cost sharing consistent with the annual appropriations process.

the General Fund of the U.S. Treasury) be used for the federal costs associated with HMTF-eligible activities; the bill does not mention any similar requirement for the use of IWTF funds.

For its part, the Corps Rehabilitation and Inspection Program (RIP) essentially functions as an insurance program for many nonfederal flood-control and coastal-protection projects and is active in addressing postdisaster repairs and rehabilitation. Approximately 14,000 miles of levees participate in RIP: 2,250 miles of locally constructed and operated levees; 9,650 miles of Corps-constructed, locally operated levees; and 2,100 miles of federally operated levees. For locally constructed projects, 80% of the cost to repair the damage is paid using federal funds and 20% is paid by the levee owner. For federally constructed projects, the repair cost is entirely a federal responsibility (except for the cost of obtaining the sand or other material used in the repair). For damage to be repaired, the Corps must determine that repair has a favorable benefit-cost ratio. There is no annual cost or premium for participating in the RIP program beyond maintaining the project to RIP standards.

Concluding Remarks

The 115th Congress is considering possible responses to various natural disasters in 2017. In recent years through supplemental appropriations, Congress not only has funded the emergency response and repair activities of the Corps but also has provided the Corps with funding to study and construct projects that reduce flood risks in areas recently affected by some hurricanes and floods. That is, supplemental appropriations in response to Hurricane Katrina and Hurricane Sandy supported new investments in flood-risk reduction infrastructure projects in affected areas to a much greater extent than Congress has provided for other flood events. H.R. 4667 proposes $12.09 billion for the agency's activities associated with response, repair, and recovery from natural disasters including Hurricanes Harvey, Irma, and Maria; of the $12.09 billion total, $10.425 billion would be for new construction of Corps flood-risk reduction projects in areas affected by Hurricanes Harvey, Irma, and Maria.

During its deliberations on Corps supplemental appropriations, Congress often considers various issues and special considerations associated with the provision of these funds. These include the role of Congress in the authorization of construction of Corps projects that receive supplemental funds, whether to maintain requirements for nonfederal cost sharing, and what requirements to include regarding reporting to Congress and public transparency associated with supplemental funds. Supplemental Corps funding debates also raise broader questions for policymakers, such as the effectiveness and efficiency of processes such as those for postdisaster supplemental appropriations and Corps annual budget development, especially in regard to identifying and supporting priority investments in reducing the nation's flood risk.

Appendix. Table of Supplemental Appropriations by Event

Table A-1. Selected Supplemental Appropriations Allocations from 2003 to 2016 and H.R. 4667

(events or locations referenced in Corps supplemental appropriations)

P.L. Number (enacted calendar year) or Bill Number	Event Type or Location	Funding Allocation (nominal $ in millions)
P.L. 108-324 (2004)	West Virginia Floods	10
P.L. 109-62 (2005)	Hurricane Katrina	400
P.L. 109-148 (2005)	Hurricane Katrina	2,143
	Hurricane Ophelia	69
	Hurricane Rita	91
	Hurricane Wilma	57
P.L. 109-234 (2006)	Hurricane Katrina	3,651
	Hurricane Rita	2
	California	30
	Hawaii	2
	Pennsylvania	16
P.L. 110-28 (2007)	Hurricane Katrina	1,325
	Mississippi	108
	Missouri River Flood	12
	Alabama-Coosa River	3
	Nor'easter Flood	23
	Texas	3
	Drought Assistance	7
P.L. 110-252 (2008)	Midwest Flooding	302
	Hurricane Katrina	5,900
P.L. 110-329 (2008)	Hurricane Katrina	1,500
P.L. 111-32 (2009)	Hurricane Katrina	439
P.L. 113-2 (2013)	Hurricane Sandy	5,350
H.R. 4667 (as passed by the House)	Natural disasters including Hurricanes Harvey, Irma, and Maria	12,090

Source: CRS using Corps data.

Notes: Table includes legislation referencing specific locations and/or events only. The funding provided under P.L. 110-329 was appropriated to cover the nonfederal share of certain construction costs related to Hurricane Katrina and is being repaid by the state of Louisiana over 30 years.

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