



## CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

June 4, 2018

### **H.R. 8** **Water Resources Development Act of 2018**

*As reported by the House Committee on Transportation and Infrastructure  
on June 1, 2018*

#### **SUMMARY**

H.R. 8 would authorize the U.S. Army Corps of Engineers (Corps) to construct projects to improve navigation and flood management, to mitigate storm and hurricane damage and to provide assistance for water recycling and water treatment projects. The bill also would authorize the Federal Emergency Management Agency (FEMA) to assist states and local governments in mitigating flood risks from aging dams and levees. CBO estimates that implementing H.R. 8 would cost about \$1.1 billion over the next five years and \$2.5 billion over the 2019-2028 period, assuming appropriation of authorized and necessary amounts.<sup>1</sup>

Enacting H.R. 8 also would increase direct spending by \$5 million over the 2019-2028 period; therefore, pay-as-you-go procedures apply. The bill would authorize the Corps to convey nine acres of federal land to the city of Nashville, Tennessee, in exchange for the fair market value of the property, which CBO estimates would total about \$1 million. The bill also would authorize the Corps to credit the nonfederal sponsor of the Kissimmee River Restoration Project for certain in-kind contributions totaling \$6 million. Enacting the bill would not affect revenues.

H.R. 8 would significantly increase direct spending by more than \$2.5 billion and on-budget deficits by more than \$5 billion in at least one of the four consecutive 10-year periods beginning in 2029, by authorizing the Corps to spend amounts in the Harbor Maintenance Trust Fund without further appropriation.

H.R. 8 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA).

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1. This estimate does not include the cost of implementing section 108, which would be subject to appropriation, because CBO has no information to estimate that cost.

## ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary effect of H.R. 8 is shown in the following table. The costs of the legislation fall within budget function 300 (natural resources and environment).

	By Fiscal Year, in Millions of Dollars										2019-	2019-
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2023	2028
<b>INCREASES OR DECREASES (-) IN DIRECT SPENDING <sup>a</sup></b>												
Estimated Budget Authority	0	-1	0	0	0	0	6	0	0	0	-1	5
Estimated Outlays	0	-1	0	0	0	0	6	0	0	0	-1	5
<b>INCREASES IN SPENDING SUBJECT TO APPROPRIATION</b>												
Water Resources Infrastructure												
Estimated Authorization Level	13	157	152	226	231	224	226	171	161	165	778	1,726
Estimated Outlays	5	67	110	161	198	208	215	193	172	163	541	1,491
Dam and Levee Safety												
Authorization Level	30	123	123	123	123	30	30	30	0	0	522	612
Estimated Outlays	12	57	89	108	116	83	56	40	20	9	382	590
Navigation and Nonfederal Construction Programs												
Authorization Level	13	38	38	38	38	13	13	13	13	13	163	225
Estimated Outlays	5	19	28	33	36	26	18	14	12	12	121	203
Studies and Other Provisions												
Estimated Authorization Level	26	29	27	24	16	12	12	12	13	13	122	184
Estimated Outlays	36	23	25	24	19	14	12	12	12	12	104	167
Total												
Estimated Authorization Level	82	346	339	410	408	278	281	225	187	190	1,584	2,747
Estimated Outlays	36	165	252	326	369	330	302	260	216	195	1,148	2,451

Notes: Amounts may not sum to totals because of rounding.

The estimate does not include the cost of implementing section 108, which would be subject to appropriation, because CBO has no information to estimate those costs.

- a. The estimate does not include direct spending effects that could arise from section 119 because of insufficient information about the value of potential credit to non-federal partners under section 119 and ongoing ecosystem restoration projects in the Louisiana coastal area. Those costs are reflected in this estimate as costs that are subject to appropriation.

## BASIS OF ESTIMATE

For this estimate, CBO assumes that H.R. 8 will be enacted near the end of 2018 and that the authorized and necessary amounts will be appropriated for each fiscal year. Estimates

of amounts necessary to implement the bill are based on information from the Corps and FEMA; estimated outlays are based on historical spending patterns for similar projects and programs. Major components of the estimated costs are described below.

### **Spending Subject to Appropriation**

CBO estimates that H.R. 8 would authorize appropriations totaling about \$2.7 billion over the 2019-2028 period for water infrastructure projects and studies administered by the Corps and FEMA. We estimate that implementing those provisions would cost \$2.5 billion over the 2018-2028 period.

### **Water Resources Infrastructure**

CBO estimates that implementing provisions of the bill that would authorize the Corps to construct and modify water infrastructure projects would cost about \$1.5 billion over the 2019-2028 period, assuming appropriation of the specified amounts and accounting for anticipated inflation. Those provisions would authorize the Corps to construct seven new projects and would modify the existing authorization of three projects aimed at mitigating hurricane and storm damage, strengthening flood-risk management, improving the nation's navigation system, restoring the environment, and providing assistance for water recycling and water treatment projects. Using information from the Corps, CBO estimates that the total cost to complete those projects would be \$4.2 billion. H.R. 8 would authorize the appropriation of \$2.7 billion to cover the federal share of those costs—of that \$1.7 billion would need to be appropriated over the 2019-2028 period (assuming historical rates of spending for similar projects)—and nonfederal entities would be responsible for the remaining costs, totaling an estimated \$1.5 billion.

The estimated cost of the largest project authorized by H.R. 8 totals \$3.3 billion; the federal share would total about \$2.2 billion. That project aims to address erosion along the coast in Galveston, Texas, and restore ecosystems including wetlands and marshes to enhance protection from storm surge in the area that was damaged by Hurricane Harvey. The estimated cost for the other projects authorized by the bill total \$0.9 billion; the federal share of those projects totals about \$0.6 billion.

Assuming appropriation of the necessary amounts, CBO estimates that spending on the project to restore the Texas coast in Galveston would total about \$940 million over the 2019-2028 period. CBO estimates that construction spending for the other six projects and three modifications would total about \$550 million over the next 10 years.

To estimate how funds appropriated for those projects would be spent, CBO used information from the Corps about when construction for each project could begin, how long it would take to complete, and what funding would be necessary to complete it over

the anticipated construction period. Construction schedules and the pattern of spending for such projects is uncertain and plans are subject to change because of delays in obtaining funding and other unforeseen circumstances. For this estimate, CBO assumed that those projects with greater costs to benefits ratios would be prioritized for funding. Information on cost benefit ratios was provided to CBO by the Corps. CBO also analyzed the historical spending patterns of similar projects. Because of their size and complexity some large Corps projects can take several years to commence and more than ten years to complete. CBO estimates that the federal share of the projects and modifications authorized by this title would require the appropriation of about \$1.7 billion over the 2019-2028 period; the remainder of the federal share to complete the projects would be needed after 2028.

Finally, the bill would withdraw the authorization for five projects originally authorized more than 70 years ago. Information from the Corps indicates that these projects are complete and no additional construction is planned; therefore CBO expects that deauthorizing them would have no budgetary effect.

### **Dam and Levee Safety**

Using information provided by the Corps and FEMA, CBO estimates that implementing provisions addressing dam and levee safety would cost \$590 million over the 2019-2028 period, assuming appropriation of authorized amounts.

H.R. 8 would reauthorize the national dam and levee safety programs operated by FEMA and the Corps. Those programs provide grants to local and state governments to assist with levee safety and rehabilitation, maintaining databases for the nation's dams and levees, and implementing a public awareness and education program for managing dam and levee safety. Under those programs the Corps also would provide technical assistance to local and state governments to rehabilitate high risk levees. H.R. 8 would authorize the appropriation of \$372 million for FEMA and the Corps to implement those programs. Using information on historical spending patterns for similar projects, CBO estimates that implementing those provisions would cost \$365 million over the 2019-2028 period.

The bill also would increase amounts authorized to be appropriated each year for the Corps to rehabilitate dams considered to be highly hazardous until the authorization for program expires in 2026. Dams eligible for funding would include those constructed by the Corps before 1940 that have been classified as a high hazard by the state where the dam is located and that are operated by a nonfederal entity. Using information on historical spending patterns for this program, CBO estimates that implementing that provision would cost \$225 million over the 2019-2028 period.

## **Navigation and Nonfederal Construction Programs**

CBO estimates that implementing provisions of the bill related to navigation and nonfederal construction programs would cost \$203 million over the 2019-2028 period, assuming appropriation of the specified amounts.

H.R. 8 would increase the amounts authorized to be appropriated each year by \$12.5 million for the Corps to construct small harbor projects to improve navigation. Using information from the Corps, CBO estimates that implementing that provision would cost \$108 million over the 2019-2028 period.

The bill also would reauthorize a pilot program for the Corps to contract with nonfederal partners to construct projects to manage risk from floods, reduce damage from storms and improve navigation of the nation's harbors. The program aims to identify opportunities for reducing the costs and the time required to complete construction projects. The provision would authorize the appropriation of \$25 million for each year from 2020 through 2023. Using information from the Corps, CBO estimates that implementing that provision would cost \$95 million over the 2019-2028 period.

## **Studies and Other Provisions**

Using information provided by the Corps, CBO estimates that implementing the provisions described below would cost \$167 million over the 2019-2028 period, assuming appropriation of the necessary amounts. Those provisions would:

- Authorize the Corps to credit non-federal partners for work carried out on projects to protect, preserve, and restore the Louisiana coastal ecosystems;<sup>2</sup>
- Authorize the Corps to conduct about 20 feasibility studies for projects to reduce risks stemming from floods, to restore ecosystems, and to improve navigation; and
- Direct the Corps to prepare a report on aquatic invasive species and other management reports, fund a demonstration project aimed at harmful algal bloom, and provide housing support to Indian tribes displaced by the construction of John Day Dam on the Columbia River in Washington and Oregon.

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2. Section 119 would authorize the Corps to credit non-federal partners for work carried out on projects to protect, preserve, and restore the Louisiana coastal ecosystems. Those costs are reflected in CBO's estimate of discretionary costs but the provision could affect direct spending if it reduces payments non-federal sponsors would make to the federal government for their share of costs on completed projects. CBO has insufficient information about the value of those credits to determine which costs might affect direct spending.

CBO's cost estimate for H.R. 8 excludes the costs of implementing section 108, which would authorize the Corps to restore infrastructure for shore protection damaged by natural disasters to pre-storm levels because the number of eligible projects is not available.

### **Changes in Direct Spending**

Using information provided by the Corps, CBO estimates that implementing the provisions described below would increase direct spending by about \$5 million. The construction phase of the Kissimmee River Restoration Project in Florida is nearly complete and the Corps anticipates that the final accounting for the federal and nonfederal shares of the project's cost will occur in about 5 years. The Corps has previously determined that certain in-kind contributions provided by the local sponsor of the project were ineligible as a qualifying credit toward the portion of the local cost share. H.R. 8 would reverse that decision by the Corps and reduce any cash settlement that would be required by the local sponsor to reconcile the nonfederal account. The Corps would be required to credit the nonfederal sponsor for the Kissimmee River Restoration Project for those in-kind contributions, which total \$6 million.

The bill also would authorize the Corps to convey 9 acres of federal land to the city of Nashville, Tennessee, in exchange for payment of the fair market value of the property. Using information provided by the Corps, CBO estimates the city would pay the federal government about \$600,000 in 2020 when the property is transferred.

### **PAY-AS-YOU-GO CONSIDERATIONS**

The Statutory Pay-As-You-Go Act of 2010 establishes budget-reporting and enforcement procedures for legislation affecting direct spending or revenues. The net changes in outlays that are subject to those pay-as-you-go procedures are an increase in direct spending of \$5 million.

Enacting the bill would not affect revenues over the 2019-2028 period.

### **INCREASE IN LONG-TERM DIRECT SPENDING AND DEFICITS**

CBO estimates that enacting H.R. 8 would increase net direct spending and on-budget deficits by more than \$2.5 billion and on-budget deficits by more than \$5 billion in at least one of the four consecutive 10-year periods beginning in 2029.

Under the bill, balances in the Harbor Maintenance Trust Fund (HMTF) would become available to the Corps, without further appropriation, beginning in fiscal year 2029. The Corps would expend those funds on nonroutine maintenance costs and deferred repairs at eligible projects. CBO estimates that the balance in the HMTF would total about \$15 billion in 2029. In recent years the annual appropriation from the HMTF has been about \$1 billion. CBO estimates that direct spending from the HMTF in 2029 and later years would exceed \$1 billion per year. CBO cannot predict whether annual discretionary appropriations from the HMTF would continue at any level after 2028.

## **MANDATES**

H.R. 8 contains no intergovernmental or private-sector mandates as defined in UMRA.

## **ESTIMATE PREPARED BY**

Federal Costs: Aurora Swanson  
Mandates: Jon Sperl

## **ESTIMATE REVIEWED BY**

Kim P. Cawley  
Chief, Natural and Physical Resources Cost Estimates Unit

Theresa Gullo  
Assistant Director for Budget Analysis