



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

April 9, 2013

S. 601 **Water Resources Development Act of 2013**

*As ordered reported by the Senate Committee on Environment and Public Works
on March 20, 2013*

SUMMARY

S. 601 would authorize the Army Corps of Engineers (Corps) to construct water projects for mitigating storm damage, restoring ecosystems, and reducing erosion on inland and intracoastal waterways. The legislation also would authorize the agency to establish grant programs to assist local and state governments with levee safety and rehabilitation programs. Finally, S. 601 would authorize the Corps and the Environmental Protection Agency (EPA) to provide loans or loan guarantees to state and local governments and certain nongovernmental entities to complete water infrastructure projects.

Assuming appropriation of the authorized and necessary amounts, including adjustments for anticipated increases in construction costs, CBO estimates that implementing S. 601 would cost about \$5.9 billion over the 2014-2018 period. Spending would continue from amounts authorized to be appropriated under the bill after 2018, and CBO estimates that such spending would total \$6.6 billion over the 2019-2023 period.

The staff of the Joint Committee on Taxation (JCT) estimates that enacting the bill would reduce revenues by \$135 million over the next 10 years; therefore, pay-as-you-go procedures apply. Enacting the bill would not affect direct spending.

S. 601 would impose intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA). Public and private entities would be required to comply with regulations to prevent the spread of invasive species. Because the number of affected entities and the cost of compliance would probably be small, CBO expects that the costs of the mandates would fall below the annual thresholds established in UMRA for intergovernmental and private-sector mandates (\$75 million and \$150 million in 2013, respectively, adjusted annually for inflation).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of S. 601 is shown in the following table. The costs of this legislation fall within budget function 300 (natural resources and environment).

	By Fiscal Year, in Millions of Dollars					2014-2018
	2014	2015	2016	2017	2018	
CHANGES IN SPENDING SUBJECT TO APPROPRIATION						
Title I – Water Resource Projects						
Estimated Authorization Level	855	873	892	911	932	4,463
Estimated Outlays	342	606	747	848	867	3,410
Title II – Water Resources Policy Reforms						
Estimated Authorization Level	261	263	266	272	278	1,341
Estimated Outlays	104	184	225	254	259	1,026
Title V – Regional and Nonproject Provisions						
Estimated Authorization Level	79	80	82	43	44	327
Estimated Outlays	36	60	71	58	47	271
Title VI – Levee Safety						
Authorization Level	103	103	103	103	103	515
Estimated Outlays	54	85	94	100	100	443
Title VIII – Harbor Maintenance						
Estimated Authorization Level	50	50	50	50	50	250
Estimated Outlays	35	50	50	50	50	235
Title X – Innovative Financing Pilot Projects						
Authorization Level	100	100	100	100	100	500
Estimated Outlays	2	25	66	81	86	260
Other Titles						
Estimated Authorization Level	66	66	66	68	43	308
Estimated Outlays	35	56	62	66	51	269
Total Changes						
Estimated Authorization Level	1,514	1,535	1,559	1,546	1,549	7,704
Estimated Outlays	608	1,066	1,314	1,457	1,460	5,905
CHANGES IN REVENUES^a						
Estimated Increase or Decrease (-) in Revenues	0	0	-2	-5	-10	-18

Note: Components may not sum to totals because of rounding.

a. The staff of the Joint Committee on Taxation estimates that enacting and implementing title X of S. 601 would lead to an additional reduction in federal revenues of \$117 million over the 2018-2023 period.

BASIS OF ESTIMATE

For this estimate, we assume that S. 601 will be enacted in 2013 and that the necessary amounts will be appropriated for each fiscal year. Estimated outlays are based on information from the Corps, the Federal Emergency Management Agency (FEMA), and EPA, and on historical spending patterns for similar projects.

Spending Subject to Appropriation

Title I – Water Resource Projects. CBO estimates that implementing title I would cost \$3.4 billion over the 2014-2018 period, assuming appropriation of the necessary amounts.

Title I would authorize the Corps to construct water projects that are in the federal interest if it has completed a project report and has recommended to the Congress—prior to enactment of this legislation—that the project should receive funding for construction. According to information from the Corps, 27 projects meet this criteria. The four largest of those projects—the Mississippi Coastal Improvement Program, the American River Watershed Common Features Project in Natomas Basin, California, the Sabine Neches Waterway in Texas and Louisiana, and the Fargo-Moorhead Metro in Minnesota and North Dakota—have a total estimated cost of \$5.6 billion, with the federal share totaling about \$3.3 billion. CBO estimates that \$1.3 billion of those costs would be incurred over the 2014-2018 period. We estimate that construction costs for the other 23 projects would total \$1.2 billion over the next five years.

Title I also would enable the Corps to increase the authorized construction cost of a project if it meets the criteria in S. 601, has already received an appropriation, and the Corps submits to the Congress details justifying the higher costs. Three projects meet the criteria under the bill for an increase in authorized construction costs, according to the Corps. The largest increase would be \$2.1 billion for the Olmsted Lock and Dam in Illinois. CBO estimates that \$0.9 billion of that increase would be incurred over the 2014-2018 period. We estimate that construction costs for the other two projects would total \$71 million over the next five years. This authority would expire three years after the bill's enactment.

Title II – Water Resources Policy Reforms. Title II would authorize the Corps to implement a pilot program—in coordination with state and local governments, other federal agencies, and interested parties—to stabilize riverbanks and reduce erosion on inland and intracoastal waterways in the United States. The bill also includes pilot programs through which the Corps would be authorized to contract with nonfederal partners to conduct feasibility studies; construct projects to manage risk from floods; reduce damage from storms; and improve navigation of the nation's harbors.

Finally, title II would increase the amounts authorized to be appropriated for other activities performed by the Corps, including flood control, floodplain management, project

modifications to improve the environment, ecosystem restoration, and assistance to states for water resource development.

Based on information from the Corps about costs and the time required to complete similar projects, CBO estimates that implementing this title would cost about \$1 billion over the 2014-2018 period, assuming appropriation of the necessary amounts.

Title V - Regional and Nonproject Provisions. Title V would authorize the Corps to establish regional partnerships with state and local governments, other federal agencies, and interested parties to address regional priorities for water resources, including restoring ecosystems, controlling invasive species, and mitigating impacts from floods and extreme weather. The bill also would authorize the Corps to conduct studies—in collaboration with nonfederal partners—to develop plans and designs and to construct projects that meet the water resource priorities in each region. Based on information from the Corps about water resource needs, CBO estimates that implementing this title would cost \$271 million over the 2014-2018 period, assuming appropriation of the necessary amounts.

Title VI - Levee Safety. Title VI would direct the Corps—in consultation with FEMA—to develop a levee safety program, including a national database to classify flood risk at federal and nonfederal levees, levee safety guidelines, and a public education program focusing on communities vulnerable to flooding from levee failure. The agencies also would be directed to create an independent board to advise the Corps and the Congress on consistent approaches to levee safety and to report on the efficacy of the national levee safety program.

The Corps also would be directed to provide technical assistance and training to state and tribal governments as they develop safety programs to reduce flood damage. Under the bill, the federal share of costs for those activities would be limited to 65 percent of total costs.

Finally, title VI would authorize the Corps to establish grant programs to assist state and tribal governments to develop safety programs for levees and to provide funding assistance to nonfederal partners for rehabilitating levees.

Based on information from the Corps and FEMA about the historical rate of spending for levee inspections and rehabilitation programs and assuming appropriation of the authorized amounts, CBO estimates that implementing title VI would cost \$443 million over the 2014-2018 period.

Title VIII - Harbor Maintenance. The bill would direct the Corps to prioritize navigation projects funded with appropriations from the Harbor Maintenance Trust Fund based on the need to maintain the authorized width and depth of those projects. The bill would make the federal government responsible for all operation and maintenance costs for harbors more than 45 feet deep but less than 50 feet deep. Under current law, such costs for all harbors

that are more than 45 feet deep are shared equally with nonfederal partners. Assuming appropriation of the necessary amounts, CBO estimates that those provisions would cost \$235 million over the 2014-2018 period. That estimate is based on information from the Corps about the number of harbors that are between 45 feet and 50 feet in depth—or expected to be deepened to 45 feet to 50 feet in the next few years—and the incremental costs to the federal government to provide 100 percent of the operation and maintenance costs.

S. 601 also would establish new procedural points of order for considering legislation in either house of the Congress aimed at ensuring that funds appropriated from the Harbor Maintenance Trust Fund (HMTF) each year are equal to the receipts plus the interest credited to the fund each year. Over the past five years, appropriations from the HMTF have averaged around \$800 million a year—or about \$700 million a year less than the revenues and interest credited to the fund. Because current law authorizes the appropriation of such sums as are necessary from the HMTF, this provision does not represent an increase in the amounts authorized to be appropriated.

Title X - Innovative Financing Pilot Projects. This legislation would authorize the appropriation of \$500 million over the 2014-2016 period for the Corps and EPA to provide loans or loan guarantees to state and local governments and certain nongovernmental entities to complete water infrastructure projects. Of the amounts authorized, up to \$11 million over the next five years would be available to support administrative costs incurred by those agencies to complete and service the loan agreements. The bill also would require that eligible projects cost \$20 million or more and that federal loan amounts account for 49 percent or less of the project's eligible costs. Also, under the bill, the sponsor of each project would be required to demonstrate that it has a financial outlook similar to those of bonds rated B- or better by credit rating companies, such as Standard and Poors and Moodys.

Under procedures established in the Federal Credit Reform Act, funds must be appropriated in advance to cover the estimated subsidy cost of loans and loan guarantees, measured on a present-value basis. Projects with at least a B- rating historically have a cumulative default risk of around 5 percent or less. Considering other features of the proposed loan program, such as a grace period on loan repayments until projects are completed and other optional repayment deferrals if projects cannot make timely loan repayments, CBO estimates that most of the loans and loan guarantees under the proposed program would have a subsidy rate between 3 percent and 11 percent. The Department of Transportation currently operates a similar loan program for transportation infrastructure projects known as the Transportation Infrastructure Finance and Innovation Act (TIFIA) program. Direct loans under the TIFIA program have an estimated subsidy rate of about 10 percent. CBO expects that the proposed program would operate much like TIFIA and that the Corps and EPA would mostly offer direct federal loans. Based on historical

spending rates and the demand for infrastructure loans from TIFIA, CBO estimates that implementing this pilot program would cost \$260 million over the 2014-2018 period.

Other Titles. Most other costs would result from titles IV, IX, and XI. Based on information from the Corps and FEMA, and on historical spending patterns of similar programs, CBO estimates that implementing those titles would cost \$269 million over the 2014-2018 period.

- **Title IV – Water Resource Studies.** This title would authorize the Corps to conduct studies of projects aimed at reducing storm damage and flood risk, improving navigation, restoring ecosystems, and other related issues. Assuming appropriation of the authorized amounts, CBO estimates that implementing this title would cost \$103 million over the 2014-2018 period.
- **Title IX - Dam Safety.** This title would reauthorize the national dam safety program operated by FEMA. Under the bill, FEMA would also be directed to implement a public awareness and dam safety education program focusing on disaster preparedness. Assuming appropriation of the amounts specifically authorized in the bill, CBO estimates that implementing this title would cost \$63 million over the 2014-2018 period.
- **Title - XI Extreme Weather.** This title would authorize the Corps to conduct watershed assessments in disaster areas and to carry out water resources projects to restore water infrastructure and natural features, such as wetlands that help mitigate storm damages. Assuming appropriation of the authorized amounts, CBO estimates that implementing this title would cost \$100 million over the 2014-2018 period.
- **Miscellaneous.** Other costs would result from provisions that would make minor changes to specific projects and some process changes to Inland Waterways projects. Assuming appropriation of the necessary amounts, CBO estimates that those provisions would cost about \$3 million over the 2014-2018 period.

Changes in Revenues

Title X would authorize the appropriation of funds for the Corps and EPA to issue direct federal loans and loan guarantees to support water infrastructure projects. JCT expects that some of these funds would be used by states to acquire additional funds by issuing tax-exempt bonds. JCT estimates that issuing additional tax-exempt bonds would reduce federal revenues by \$135 million over the next 10 years.

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 budgetary changes (a loss of revenue) that are subject to those pay-as-you-go procedures are shown in the following table.

CBO Estimate of Pay-As-You-Go Effects for S. 601, as ordered reported by the Senate Committee on Environment and Public Works on March 20, 2013

	By Fiscal Year, in Millions of Dollars												2013- 2018	2013- 2023
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023			
NET INCREASE OR DECREASE (-) IN THE DEFICIT														
Statutory Pay-As-You-Go Impact	0	0	0	2	5	10	16	21	25	27	28	18	135	

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

Mandates

S. 601 would impose intergovernmental and private-sector mandates, as defined in UMRA, by authorizing the Corps of Engineers to carry out watercraft inspections or other measures to prevent the spread of invasive species. Public and private entities would have to comply with requirements established by the Corps. Because the number of affected entities and the cost of compliance would probably be small, CBO expects that the costs of the mandates would fall below the annual thresholds established in UMRA for intergovernmental and private-sector mandates (\$75 million and \$150 million in 2013, respectively, adjusted annually for inflation).

Other Impacts

Water resource projects and activities authorized in the bill would benefit state, local, and tribal governments. Governments that chose to participate in programs or applied for grants authorized by the bill could incur costs, but those costs would be incurred voluntarily as conditions of federal assistance.

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