U.S. GOVERNMENT ACCOUNTABILITY OFFICE

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The Honorable Thomas R. Carper
Chairman
The Honorable Shelley Moore Capito
Ranking Member
Committee on Environment and Public Works
United States Senate

The Honorable Sam Graves
Chairman
The Honorable Rick Larsen
Ranking Member
Committee on Transportation and Infrastructure
House of Representatives

U.S. Army Corps of Engineers: Actions Taken to Develop Water Resources Research Prototypes

Located within the Department of Defense, the U.S. Army Corps of Engineers (Corps) has both military and civilian responsibilities. In fiscal year 2023, the Corps' Engineer Research & Development Center had a total obligational authority of over $2.4 billion for research and development activities, primarily for warfighter support programs.[1] The Water Resources Development Act of 2022 (Act) granted the Corps authority to use agreements known as "other transactions" to carry out prototype projects and follow-on production contracts or transactions to support the basic, applied, and advanced research activities of its civilian Civil Works mission.[2] These prototype efforts can aid the Corps' management of water resources infrastructure including dams, levees, hurricane barriers, floodgates, and other hydraulic structures across the U.S.

The Act also includes a provision for GAO to annually report on the Corps' use of its other transaction authority for its Civil Works program.[3] In November 2023, we issued our first report on the Corps' efforts to implement and use this authority.[4] This second report updates the status of the Corps' efforts.

[1]The Corps has both a military and a Civil Works program. The military program provides, among other things, engineering and construction services to U.S. government agencies and foreign governments. The Civil Works program is responsible for investigating, developing, and maintaining water resources development projects.

[2]Water Resources Development Act of 2022, Pub. L. No. 117-263, § 8160(a), 136 Stat. 2395, 3741-44 (codified at 33 U.S.C. § 2313(c)).

[3]33 U.S.C. § 2313(c)(7)(E).

[4]GAO, *U.S. Army Corps of Engineers: Use of Other Transaction Agreements in Water Development Projects*, GAO-24-106746 (Washington, D.C.: Nov. 16, 2023).

To determine the status of the Corps' efforts to implement and use its other transaction authority for its Civil Works program we reviewed relevant Department of Defense documents, including policy and guidance on other transaction agreements for prototype projects and GAO reports. We also conducted interviews with Corps and Department of the Army officials.

We conducted this performance audit from March 2024 to December 2024 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Other transaction agreements are those other than procurement contracts, cooperative agreements, and grants, and are generally not subject to the same federal laws and regulations applicable to federal contracts or financial assistance.[5] This allows agencies to customize their other transaction agreements to help meet project requirements and mission needs. Because less restrictive requirements apply, these agreements can attract companies that have traditionally not done business with federal agencies.

Agencies use other transaction agreements for a variety of projects and activities. For example, agencies can use these agreements for research, development, and demonstration activities that help advance new technologies or processes. Agencies can also use these agreements for developing and reviewing prototypes. Such prototypes can be physical or virtual models that help evaluate the technical or manufacturing feasibility, or the utility, of a particular technology, process, concept, or system.

The Corps Initiated Its First Civil Works Other Transaction Agreement Under Revised Army Guidance

In February 2024, the Assistant Secretary of the Army for Acquisition, Logistics and Technology issued revised policy for the use of other transaction agreements on prototype projects.[6] This revised policy allows the use of these agreements for prototype projects that are relevant to the Civil Works missions and authorities of the Corps.[7] Subsequently, in April 2024, the Assistant Secretary of the Army for Civil Works issued implementation guidance (administrative procedures) to the Corps for using other transaction agreements for prototype projects to provide flexible and dynamic research solutions to support its Civil Works program.

[5]Cooperative agreements and grants are agreements between the federal government and a non-federal recipient with a principal purpose of transferring something of value to the recipient to carry out a public purpose of support or stimulation authorized by federal law rather than acquiring property or services for direct benefit or use. Conversely, contracts are agreements between the federal government and a non-federal recipient that are generally used to acquire property or services for the direct benefit or use by the U.S. government and are subject to the Federal Acquisition Regulation. 31 U.S.C. §§ 6303-6305; 41 U.S.C. § 3101.

[6]The term "prototype project" includes projects that address (A) a proof of concept, model, or process, including a business process; (B) reverse engineering to address obsolescence; (C) a pilot or novel application of commercial technologies for defense purposes; (D) agile development activity; (E) the creation, design, development, or demonstration of operational utility; or (F) any combination of (A) through (E). 10 U.S.C. § 4022(e)(5).

[7]Corps officials told us that since 2019 the Corps has used other transaction agreements to carry out research and development in support of its military program.

In May 2024, the Corps issued its initial solicitation using its other transaction authority in support of the Civil Works program. Through this action, the Corps sought development of a proof of concept and design for a large-scale hydraulic structures prototype model. This model would be used for testing new innovations in a controlled environment that allows the assessment of structural, hydraulic, and material defect behaviors. The Corps expects the model to enable testing of innovations at a scale large enough to provide proof of readiness for deployment in the hydraulic structures it operates.[8] According to the solicitation, this type of testing is important in mitigating the risks of developing and validating new materials, designs, and practices. For example, the testing capability provided by this model could expedite the implementation of sustainable materials in the hydraulic structures operated by the Corps and support development of innovations such as robotic repair and construction.

Corps officials told us they subsequently managed a two-step process to review responses to the solicitation and enter into an agreement with their selected offeror to develop a proof of concept and design for a large-scale hydraulic structures prototype model. In the first step, Corps officials reviewed documents submitted by offerors that addressed the technical requirements set by the Corps and estimated the price for the proof of concept and design. Corps officials then selected the preferred solution from among the offers and, in the second step, worked collaboratively with that offeror to develop the scope of work for the offeror's eventual proposal submission.

In August 2024, the selected offeror submitted its proposal to develop a proof of concept and design for the prototype model along with a milestone delivery schedule. The Corps evaluated the proposal and determined that it met the requirements discussed with the offeror during the collaboration period at a fair and reasonable price. In October 2024 the Corps notified the applicable congressional committees, and it awarded the other transaction agreement to the selected offeror in November 2024.[9]

Corps officials said that follow-on assembly of the prototype model, should the proof of concept and design be successful, will be contingent on the availability of funding from the annual budget and appropriations process.

Going forward, Corps officials expect they may enter additional other transaction agreements through its Civil Works-focused Commercial Solutions Opening (CSO).[10] The CSO is a general solicitation for innovative commercial products, technologies, and services under which the Corps may post specific requirements. Under the CSO, the Corps may make awards using contracts under the Federal Acquisition Regulation or other transactions.

Agency Comments

[8]The prototype model is to be designed for assembly at the Corps' Engineer Research and Development Center in Vicksburg, MS. Other requirements are that the model have a modular design that allows for the testing of various hydraulic structures such as lock gates, valves, and spillway gates under realistic hydraulic and structural loadings that allow for the investigation of details such as cracking and corrosion of components.

[9]The Secretary of the Army is required to notify the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate at least 30 days before exercising the Corps' other transaction authority under the Act. 33 U.S.C. § 2313(c)(5).

[10]Commercial Solutions Opening is an existing competitive procedure for the Corps to acquire innovative commercial items, technologies, or services.

The Assistant Secretary of the Army for Civil Works and Army Corps of Engineers collectively provided a technical comment, which we incorporated.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Defense, the Assistant Secretary of the Army for Civil Works, the Chief of Engineers and Commanding General of the U.S. Army Corps of Engineers, and other interested parties. In addition, the report will be made available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at 202-512-6888 or BenedictH@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report were Mike Armes (Assistant Director) and George Depaoli (Analyst-in-Charge). Also contributing to this report were Jenny Chanley, Caroline Gross, Vondalee Hunt, Mark Kuykendall, Claire Li, and Nihar Vora.

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