

118TH CONGRESS  
1ST SESSION

# H. R. 3490

To amend the Federal Water Pollution Control Act and the Safe Drinking Water Act to authorize grants for smart water infrastructure technology, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

MAY 18, 2023

Mr. GALLEGO (for himself and Mr. DUARTE) introduced the following bill; which was referred to the Committee on Transportation and Infrastructure, and in addition to the Committee on Energy and Commerce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To amend the Federal Water Pollution Control Act and the Safe Drinking Water Act to authorize grants for smart water infrastructure technology, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the  
5 “Water Infrastructure Modernization Act of 2023”.

1 (b) TABLE OF CONTENTS.—The table of contents for  
2 this Act is as follows:

Sec. 1. Short title; table of contents.  
Sec. 2. Purposes.

TITLE I—WASTEWATER INFRASTRUCTURE

Sec. 101. Smart wastewater infrastructure technology for treatment works.

TITLE II—DRINKING WATER INFRASTRUCTURE

Sec. 201. Smart water infrastructure technology for drinking water.

3 **SEC. 2. PURPOSES.**

4 The purposes of this Act are—

5 (1) to upgrade and modernize the drinking  
6 water, wastewater, and stormwater systems of the  
7 United States;

8 (2) to support the modernization of the publicly  
9 owned treatment works of the United States to  
10 maintain reliable and affordable water quality infra-  
11 structure that addresses demand impacts, including  
12 resiliency, to improve public health and natural re-  
13 sources;

14 (3) to support the modernization of the drink-  
15 ing water infrastructure and management systems of  
16 the United States to maintain reliable, resilient, and  
17 affordable drinking water infrastructure and ensure  
18 the protection of public health; and

19 (4) to encourage the use of water-efficient tech-  
20 nologies to address drought and prepare for the

1 growing strain that population growth and climate  
2 change will have on over-allocated water supplies.

3 **TITLE I—WASTEWATER**  
4 **INFRASTRUCTURE**

5 **SEC. 101. SMART WASTEWATER INFRASTRUCTURE TECH-**  
6 **NOLOGY FOR TREATMENT WORKS.**

7 Title II of the Federal Water Pollution Control Act  
8 (33 U.S.C. 1281 et seq.) is amended by adding at the end  
9 the following:

10 **“SEC. 228. SMART WASTEWATER INFRASTRUCTURE TECH-**  
11 **NOLOGY.**

12 “(a) GRANTS.—Subject to the availability of appro-  
13 priations, the Administrator shall make direct grants to  
14 owners and operators of publicly owned treatment works  
15 for planning, design, construction, implementation, train-  
16 ing, and operations relating to—

17 “(1) intelligent wastewater treatment and col-  
18 lection systems and stormwater management oper-  
19 ations, including technologies that rely on—

20 “(A) the use of real-time monitoring, man-  
21 agement, analytics, and data collection tools,  
22 embedded intelligence, and predictive mainte-  
23 nance capabilities that improve the energy effi-  
24 ciency, cost efficiency, reliability, and resiliency  
25 of wastewater treatment systems;

1           “(B) real-time remote sensors that provide  
2           continuous monitoring of water quality in  
3           stormwater and wastewater treatment and col-  
4           lection systems to support the optimization of  
5           those stormwater and wastewater treatment  
6           and collection systems; and

7           “(C) the use of artificial intelligence and  
8           other intelligent optimization tools that—

9                   “(i) reduce operational costs, includ-  
10                   ing operational costs relating to energy  
11                   consumption and chemical treatment; and

12                   “(ii) improve decisionmaking;

13           “(2) innovative and alternative combined sewer  
14           and stormwater control projects, including ground-  
15           water banking, that rely on real-time data acquisi-  
16           tion to support predictive aquifer recharge through  
17           water reuse and stormwater management capabili-  
18           ties; and

19           “(3) advanced digital design and construction  
20           management tools relating to stormwater and waste-  
21           water treatment and collection systems, including  
22           advanced digital models.

23           “(b) PROGRAM IMPLEMENTATION.—

24                   “(1) SELECTION.—

1           “(A) APPLICATION.—The owner or oper-  
2 ator of a publicly owned treatment works seek-  
3 ing a grant under subsection (a) shall submit to  
4 the Administrator an application at such time,  
5 in such manner, and containing such informa-  
6 tion as the Administrator may require.

7           “(B) GUIDANCE.—Not later than 30 days  
8 after the date of enactment of this section, the  
9 Administrator shall issue guidance to owners  
10 and operators of publicly owned treatment  
11 works on how to submit an application under  
12 subparagraph (A).

13           “(C) SELECTION.—Not later than 30 days  
14 after the date on which the owner or operator  
15 of a publicly owned treatment works seeking a  
16 grant under subsection (a) submits an applica-  
17 tion under subparagraph (A), the Administrator  
18 shall determine whether to approve or deny the  
19 application.

20           “(D) DEFICIENT APPLICATIONS.—If the  
21 Administrator determines that an application  
22 submitted under subparagraph (A) is deficient,  
23 the Administrator shall—

24                   “(i) advise the applicant of the defi-  
25                   ciency; and

1                   “(ii) provide an opportunity for the  
2                   applicant to resubmit the application.

3                   “(2) DISBURSEMENT.—If the Administrator  
4                   approves an application under paragraph (1)(C), the  
5                   Administrator shall disburse grant funds not later  
6                   than 60 days after the date of the determination.

7                   “(c) COST-SHARE.—

8                   “(1) IN GENERAL.—Except as provided in para-  
9                   graph (2), the non-Federal share of an activity car-  
10                  ried out using a grant under subsection (a) shall be  
11                  25 percent.

12                  “(2) WAIVER.—The Administrator may waive  
13                  the cost-share requirement under paragraph (1) if  
14                  the Administrator determines that the cost-share re-  
15                  quirement would be financially unreasonable due to  
16                  the inability of a community being served by the  
17                  publicly owned treatment works for which the grant  
18                  is sought to comply with the cost-share requirement.

19                  “(d) COMPLIANCE WITH BUY AMERICA.—Section  
20                  608 shall apply to grant funds under this section.

21                  “(e) REPORT TO CONGRESS.—

22                  “(1) IN GENERAL.—Not later than 180 days  
23                  after the date of enactment of this section, and not  
24                  less frequently than annually thereafter, the Admin-  
25                  istrator shall submit to Congress a report that—

1 “(A) describes—

2 “(i) the projects awarded grants  
3 under subsection (a); and

4 “(ii) the improvements in the resil-  
5 iency of publicly owned treatment works  
6 that resulted from the grants awarded  
7 under subsection (a); and

8 “(B) includes any recommendations of the  
9 Administrator to improve the ability of grants  
10 under subsection (a) to achieve the purposes de-  
11 scribed in section 2 of the Water Infrastructure  
12 Modernization Act of 2023.

13 “(2) INITIAL REPORT.—The initial report re-  
14 quired under paragraph (1) shall include a descrip-  
15 tion of the implementation of this section, including  
16 a description of—

17 “(A) the projects approved for a grant  
18 under subsection (a);

19 “(B) the projects denied a grant under  
20 subsection (a); and

21 “(C) for the projects described in subpara-  
22 graph (B), a description of the reasons for  
23 which each project was denied a grant.

24 “(f) AUTHORIZATION OF APPROPRIATIONS.—

1           “(1) IN GENERAL.—There is authorized to be  
2 appropriated to carry out this section \$25,000,000  
3 for the period of fiscal years 2024 through 2028, to  
4 remain available until expended.

5           “(2) SET-ASIDES.—

6           “(A) RURAL COMMUNITIES.—Of the  
7 amounts made available under paragraph (1),  
8 the Administrator shall use not more than 25  
9 percent to make grants to owners and operators  
10 of publicly owned treatment works that serve  
11 communities with a population of not more  
12 than 10,000 individuals.

13           “(B) TRIBAL COMMUNITIES.—Of the  
14 amounts made available under subparagraph  
15 (A), the Administrator shall use not less than  
16 10 percent to make grants to owners and oper-  
17 ators of publicly owned treatment works that  
18 serve Indian Tribes.”.

## 19           **TITLE II—DRINKING WATER** 20           **INFRASTRUCTURE**

### 21           **SEC. 201. SMART WATER INFRASTRUCTURE TECHNOLOGY** 22           **FOR DRINKING WATER.**

23           Section 1452 of the Safe Drinking Water Act (42  
24 U.S.C. 300j–12) is amended—



1           (1) in subsection (m)(1), by striking “sub-  
2           sections (a)(2)(G) and (t)” and inserting “sub-  
3           sections (a)(2)(G), (t), and (u)”;

4           (2) by adding at the end the following:

5           “(u) SMART WATER INFRASTRUCTURE TECH-  
6           NOLOGY.—

7           “(1) GRANTS.—Subject to the availability of  
8           appropriations, the Administrator shall make direct  
9           grants to the owners or operators of community  
10          water systems for purposes of planning, design, con-  
11          struction, implementation, training, and operations  
12          relating to—

13                 “(A) smart water network technologies  
14                 that—

15                         “(i) can identify or reduce water  
16                         losses in a nondestructive or nondisruptive  
17                         manner, including through analytical soft-  
18                         ware, flow and pressure monitoring, or  
19                         acoustic data collection; and

20                         “(ii) provide—

21                                 “(I) predictive and diagnostic in-  
22                                 formation for informed decision-  
23                                 making;

1           “(II) comprehensive data on  
2           pipeline integrity that document the  
3           presence of leaks or gas pockets; and

4           “(III) information on the extent  
5           of such leaks or gas pockets, with an  
6           emphasis on detecting weakness of,  
7           vulnerability of, or damage to pipe  
8           barrels, pipe joints, or other pipe fea-  
9           tures;

10           “(B) real-time remote sensing technologies,  
11           including the use of advanced data management  
12           and analytics, that detect and alert operators to  
13           water quality events, leakages, and pipeline  
14           bursts on a real-time basis, including persistent  
15           sensor networks capable of measuring—

16                   “(i) acoustic signals;

17                   “(ii) pressure transient;

18                   “(iii) water quality; or

19                   “(iv) water flow;

20           “(C) real-time decision support tech-  
21           nologies that integrate sources of data about  
22           water treatment systems and distribution net-  
23           works to deliver common operations information  
24           relying on data analytics that can improve oper-  
25           ational decisionmaking, including nonrevenue

1 water loss, energy optimization, cost efficiency,  
2 asset maintenance management, and water  
3 quality improvement;

4 “(D) advanced metering infrastructure, in-  
5 cluding meter data analytics and ratepayer  
6 technology—

7 “(i) to improve end user conservation;

8 and

9 “(ii) in support of disadvantaged com-  
10 munities;

11 “(E) resilient water supply projects that  
12 may provide real-time monitoring of weather  
13 patterns and impacts on water supply and flood  
14 protection reservoirs and dams that enhance op-  
15 erations, including—

16 “(i) improved water supply reliability  
17 and management;

18 “(ii) protection of natural resources,  
19 including fisheries; and

20 “(iii) temperature control;

21 “(F) innovative and alternative water sup-  
22 ply projects, including groundwater banking,  
23 that rely on real-time data acquisition to sup-  
24 port predictive aquifer recharge through water  
25 reuse and stormwater management capabilities;

1           “(G) artificial intelligence and other intel-  
2           ligent optimization tools that—

3                   “(i) reduce operational costs, includ-  
4                   ing operational costs relating to energy  
5                   consumption and chemical treatment; and

6                   “(ii) improve decisionmaking; and

7           “(H) advanced digital design and construc-  
8           tion management tools relating to water treat-  
9           ment systems and distribution networks, includ-  
10          ing the development of advanced digital models.

11          “(2) PROGRAM IMPLEMENTATION.—

12                   “(A) SELECTION.—

13                           “(i) APPLICATION.—The owner or op-  
14                           erator of a community water system seek-  
15                           ing a grant under paragraph (1) shall sub-  
16                           mit to the Administrator an application at  
17                           such time, in such manner, and containing  
18                           such information as the Administrator may  
19                           require.

20                           “(ii) GUIDANCE.—Not later than 30  
21                           days after the date of enactment of this  
22                           subsection, the Administrator shall issue  
23                           guidance to owners and operators of com-  
24                           munity water systems on how to submit an  
25                           application under clause (i).

1           “(iii) SELECTION.—Not later than 30  
2           days after the date on which the owner or  
3           operator of a community water system  
4           seeking a grant under paragraph (1) sub-  
5           mits an application under clause (i), the  
6           Administrator shall determine whether to  
7           approve or deny the application.

8           “(iv) DEFICIENT APPLICATIONS.—If  
9           the Administrator determines that an ap-  
10          plication submitted under clause (i) is defi-  
11          cient, the Administrator shall—

12                   “(I) advise the applicant of the  
13                   deficiency; and

14                   “(II) provide an opportunity for  
15                   the applicant to resubmit the applica-  
16                   tion.

17          “(B) DISBURSEMENT.—If the Adminis-  
18          trator approves an application under subpara-  
19          graph (A)(iii), the Administrator shall disburse  
20          grant funds not later than 60 days after the  
21          date of the determination.

22          “(3) COST-SHARE.—

23                   “(A) IN GENERAL.—Except as provided in  
24                   subparagraph (B), the non-Federal share of an

1 activity carried out using a grant under para-  
2 graph (1) shall be 25 percent.

3 “(B) EXCEPTION.—The Administrator  
4 may waive the cost-share requirement under  
5 subparagraph (A) if the grant recipient is or  
6 serves a disadvantaged community (as defined  
7 in subsection (d)(3)).

8 “(4) COMPLIANCE WITH BUY AMERICA.—Sub-  
9 section (a)(4) shall apply to grant funds under this  
10 subsection, without regard to the fiscal year limita-  
11 tion in subparagraph (A) of that subsection.

12 “(5) REPORT TO CONGRESS.—

13 “(A) IN GENERAL.—Not later than 180  
14 days after the date of enactment of this sub-  
15 section, and not less frequently than annually  
16 thereafter, the Administrator shall submit to  
17 Congress a report that—

18 “(i) describes the projects awarded  
19 grants under paragraph (1) during the ap-  
20 plicable reporting period; and

21 “(ii) includes any recommendations of  
22 the Administrator to improve the ability of  
23 grants under paragraph (1) to achieve the  
24 purposes described in section 2 of the

1 Water Infrastructure Modernization Act of  
2 2023.

3 “(B) INITIAL REPORT.—The initial report  
4 required under subparagraph (A) shall include  
5 a description of the implementation of this sub-  
6 section, including a description of—

7 “(i) the projects approved for a grant  
8 under paragraph (1);

9 “(ii) the projects denied a grant under  
10 paragraph (1); and

11 “(iii) for the projects described in  
12 clause (ii), a description of the reasons for  
13 which each project was denied a grant.

14 “(6) AUTHORIZATION OF APPROPRIATIONS.—

15 “(A) IN GENERAL.—There is authorized to  
16 be appropriated to carry out this subsection  
17 \$25,000,000 for the period of fiscal years 2024  
18 through 2028, to remain available until ex-  
19 pended.

20 “(B) SET-ASIDES.—

21 “(i) RURAL COMMUNITIES.—Of the  
22 amounts made available under subpara-  
23 graph (A), the Administrator shall use not  
24 more than 25 percent to make grants to  
25 owners and operators of community water

1 systems that serve a population of not  
2 more than 10,000 individuals.

3 “(ii) TRIBAL COMMUNITIES.—Of the  
4 amounts made available under subpara-  
5 graph (A), the Administrator shall use not  
6 less than 10 percent to make grants to  
7 owners and operators of community water  
8 systems that serve Indian Tribes.”.

○