

117TH CONGRESS
1ST SESSION

S. _____

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.

IN THE SENATE OF THE UNITED STATES

Mr. KELLY (for himself and Mr. RISCH) introduced the following bill; which was read twice and referred to the Committee on _____

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 2021”.

6 (b) TABLE OF CONTENTS.—The table of contents for
7 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.

1 SEC. 2. PURPOSES.

2 The purposes of this Act are—

3 (1) to upgrade and modernize the drinking
4 water, wastewater, and stormwater systems of the
5 United States, tackle new contaminants, and sup-
6 port drinking water infrastructure across the United
7 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
21 growing strain that population growth and climate
22 change will have on over-allocated water supplies.

1 **TITLE I—WASTEWATER**
2 **INFRASTRUCTURE**

3 **SEC. 101. SMART WASTEWATER INFRASTRUCTURE TECH-**
4 **NOLOGY FOR TREATMENT WORKS.**

5 Title II of the Federal Water Pollution Control Act
6 (33 U.S.C. 1281 et seq.) is amended by adding at the end
7 the following:

8 **“SEC. 228. SMART WASTEWATER INFRASTRUCTURE TECH-**
9 **NOLOGY.**

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

15 “(1) intelligent wastewater collection systems
16 and stormwater management operations, including
17 technologies that rely on—

18 “(A) real-time monitoring, embedded intel-
19 ligence, and predictive maintenance capabilities
20 that improve the energy efficiency, reliability,
21 and resiliency of wastewater pumping systems;

22 “(B) real-time sensors that provide contin-
23 uous monitoring of water quality in stormwater
24 and wastewater collection systems to support

1 the optimization of those stormwater and
2 wastewater collection systems; and

3 “(C) the use of artificial intelligence and
4 other intelligent optimization tools that reduce
5 operational costs, including operational costs re-
6 lating to energy consumption and chemical
7 treatment; and

8 “(2) innovative and alternative combined sewer
9 and stormwater control projects, including ground-
10 water banking, that rely on real-time data acquisi-
11 tion to support predictive aquifer recharge through
12 water reuse and stormwater management capabili-
13 ties.

14 “(b) PROGRAM IMPLEMENTATION.—

15 “(1) SELECTION.—

16 “(A) APPLICATION.—The owner or oper-
17 ator of a publicly owned treatment works seek-
18 ing a grant under subsection (a) shall submit to
19 the Administrator an application at such time,
20 in such manner, and containing such informa-
21 tion as the Administrator may require.

22 “(B) GUIDANCE.—Not later than 30 days
23 after the date of enactment of this section, the
24 Administrator shall issue guidance to owners
25 and operators of publicly owned treatment

1 works on how to submit an application under
2 subparagraph (A).

3 “(C) SELECTION.—Not later than 30 days
4 after the date on which the owner or operator
5 of a publicly owned treatment works seeking a
6 grant under subsection (a) submits an applica-
7 tion under subparagraph (A), the Administrator
8 shall determine whether to approve or deny the
9 application.

10 “(D) DEFICIENT APPLICATIONS.—If the
11 Administrator determines that an application
12 submitted under subparagraph (A) is deficient,
13 the Administrator shall—

14 “(i) advise the applicant of the defi-
15 ciency; and

16 “(ii) provide an opportunity for the
17 applicant to resubmit the application.

18 “(2) DISBURSEMENT.—If the Administrator
19 approves an application under paragraph (1)(C), the
20 Administrator shall disburse grant funds not later
21 than 60 days after the date of the determination.

22 “(c) COST-SHARE.—

23 “(1) IN GENERAL.—Except as provided in para-
24 graph (2), the non-Federal share of an activity car-

1 ried out using a grant under subsection (a) shall be
2 25 percent.

3 “(2) WAIVER.—The Administrator may waive
4 the cost-share requirement under paragraph (1) if
5 the Administrator determines that the cost-share re-
6 quirement would be financially unreasonable due to
7 the inability of a community being served by the
8 publicly owned treatment works for which the grant
9 is sought to comply with the cost-share requirement.

10 “(d) COMPLIANCE WITH BUY AMERICA.—Section
11 608 shall apply to grant funds under this section.

12 “(e) REPORT TO CONGRESS.—

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

17 “(A) describes—

18 “(i) the projects awarded grants
19 under subsection (a); and

20 “(ii) the improvements in the resil-
21 iency of publicly owned treatment works
22 that resulted from the grants awarded
23 under subsection (a); and

24 “(B) includes any recommendations of the
25 Administrator to improve the ability of grants

1 under subsection (a) to achieve the purposes de-
2 scribed in section 2 of the Water Infrastructure
3 Modernization Act of 2021.

4 “(2) INITIAL REPORT.—The initial report re-
5 quired under paragraph (1) shall include a descrip-
6 tion of the implementation of this section, including
7 a description of—

8 “(A) the projects approved for a grant
9 under subsection (a);

10 “(B) the projects denied a grant under
11 subsection (a); and

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

15 “(f) AUTHORIZATION OF APPROPRIATIONS.—

16 “(1) IN GENERAL.—There is authorized to be
17 appropriated to carry out this section \$25,000,000
18 for the period of fiscal years 2023 through 2027, to
19 remain available until expended.

20 “(2) SET-ASIDES.—

21 “(A) RURAL COMMUNITIES.—Of the
22 amounts made available under paragraph (1),
23 the Administrator shall use not more than 20
24 percent to make grants to owners and operators
25 of publicly owned treatment works that serve

1 communities with a population of not more
2 than 10,000 individuals.

3 “(B) TRIBAL COMMUNITIES.—Of the
4 amounts made available under subparagraph
5 (A), the Administrator shall use not less than
6 10 percent to make grants to owners and oper-
7 ators of publicly owned treatment works that
8 serve Indian Tribes.”.

9 **TITLE II—DRINKING WATER** 10 **INFRASTRUCTURE**

11 **SEC. 201. SMART WATER INFRASTRUCTURE TECHNOLOGY** 12 **FOR DRINKING WATER.**

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

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

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

19 “(u) SMART WATER INFRASTRUCTURE TECH-
20 NOLOGY.—

21 “(1) GRANTS.—Subject to the availability of
22 appropriations, the Administrator shall make direct
23 grants to the owners or operators of community
24 water systems for purposes of the planning, design,

1 construction of, and operations training relating
2 to—

3 “(A) smart water network technologies
4 that—

5 “(i) can identify water losses from
6 conveyance facilities in a nondestructive or
7 nondisruptive manner, including acoustic
8 data collection; and

9 “(ii) provide—

10 “(I) comprehensive data on pipe-
11 line integrity that document the pres-
12 ence of leaks or gas pockets; and

13 “(II) information on the extent
14 of such leaks or gas pockets, with an
15 emphasis on detecting weakness of,
16 vulnerability of, or damage to pipe
17 barrels, pipe joints, or other pipe fea-
18 tures;

19 “(B) real-time sensing technologies, includ-
20 ing the use of advanced analytics, that detect
21 and alert operators to leakages and pipeline
22 bursts on a real-time basis, including persistent
23 sensor networks capable of measuring—

24 “(i) acoustic signals;

25 “(ii) pressure transient; or

1 “(iii) water quality;

2 “(C) real-time decision support that inte-
3 grates sources of data about water distribution
4 networks to deliver common operations informa-
5 tion relying on data analytics that can improve
6 operational decisionmaking, including nonrev-
7 enue water loss, energy optimization, and water
8 quality improvement;

9 “(D) advanced metering infrastructure, in-
10 cluding meter data analytics and ratepayer
11 technology—

12 “(i) to improve end user conservation;

13 and

14 “(ii) in support of disadvantaged com-
15 munities;

16 “(E) resilient water supply projects that
17 may provide real-time monitoring of weather
18 patterns and impacts on water supply and flood
19 protection reservoirs and dams that enhance op-
20 erations, including—

21 “(i) improved water supply reliability
22 and management;

23 “(ii) protection of natural resources,
24 including fisheries; and

25 “(iii) temperature control; and

1 “(F) innovative and alternative water sup-
2 ply projects, including groundwater banking,
3 that rely on real-time data acquisition to sup-
4 port predictive aquifer recharge through water
5 reuse and stormwater management capabilities.

6 “(2) PROGRAM IMPLEMENTATION.—

7 “(A) SELECTION.—

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

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

21 “(iii) SELECTION.—Not later than 30
22 days after the date on which the owner or
23 operator of a community water system
24 seeking a grant under paragraph (1) sub-
25 mits an application under clause (i), the

1 Administrator shall determine whether to
2 approve or deny the application.

3 “(iv) DEFICIENT APPLICATIONS.—If
4 the Administrator determines that an ap-
5 plication submitted under clause (i) is defi-
6 cient, the Administrator shall—

7 “(I) advise the applicant of the
8 deficiency; and

9 “(II) provide an opportunity for
10 the applicant to resubmit the applica-
11 tion.

12 “(B) DISBURSEMENT.—If the Adminis-
13 trator approves an application under subpara-
14 graph (A)(iii), the Administrator shall disburse
15 grant funds not later than 60 days after the
16 date of the determination.

17 “(3) COST-SHARE.—

18 “(A) IN GENERAL.—Except as provided in
19 subparagraph (B), the non-Federal share of an
20 activity carried out using a grant under para-
21 graph (1) shall be 25 percent.

22 “(B) EXCEPTION.—The Administrator
23 may waive the cost-share requirement under
24 subparagraph (A) if the grant recipient is or

1 serves a disadvantaged community (as defined
2 in subsection (d)(3)).

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

7 “(5) REPORT TO CONGRESS.—

8 “(A) IN GENERAL.—Not later than 180
9 days after the date of enactment of this sub-
10 section, and not less frequently than annually
11 thereafter, the Administrator shall submit to
12 Congress a report that—

13 “(i) describes the projects awarded
14 grants under paragraph (1) during the ap-
15 plicable reporting period; and

16 “(ii) includes any recommendations of
17 the Administrator to improve the ability of
18 grants under paragraph (1) to achieve the
19 purposes described in section 2 of the
20 Water Infrastructure Modernization Act of
21 2021.

22 “(B) INITIAL REPORT.—The initial report
23 required under subparagraph (A) shall include
24 a description of the implementation of this sub-
25 section, including a description of—

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

3 “(ii) the projects denied a grant under
4 paragraph (1); and

5 “(iii) for the projects described in
6 clause (ii), a description of the reasons for
7 which each project was denied a grant.

8 “(6) AUTHORIZATION OF APPROPRIATIONS.—

9 “(A) IN GENERAL.—There is authorized to
10 be appropriated to carry out this subsection
11 \$25,000,000 for the period of fiscal years 2023
12 through 2027, to remain available until ex-
13 pended.

14 “(B) SET-ASIDES.—

15 “(i) RURAL COMMUNITIES.—Of the
16 amounts made available under subpara-
17 graph (A), the Administrator shall use not
18 more than 20 percent to make grants to
19 owners and operators of community water
20 systems that serve a population of not
21 more than 10,000 individuals.

22 “(ii) TRIBAL COMMUNITIES.—Of the
23 amounts made available under subpara-
24 graph (A), the Administrator shall use not
25 less than 10 percent to make grants to

1 owners and operators of community water
2 systems that serve Indian Tribes.”.