

116TH CONGRESS
2D SESSION

S. 4188

To provide for drought preparedness and improved water supply reliability,
and for other purposes.

IN THE SENATE OF THE UNITED STATES

JULY 2, 2020

Ms. HARRIS introduced the following bill; which was read twice and referred
to the Committee on Energy and Natural Resources

A BILL

To provide for drought preparedness and improved water
supply reliability, 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 for Tomorrow Act of 2020”.

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. Definitions.

**TITLE I—INVESTMENTS IN WATER INFRASTRUCTURE AND
SUSTAINABILITY**

Sec. 101. Findings.

- Sec. 102. Reclamation infrastructure finance and innovation program.
 Sec. 103. Assistance for disadvantaged communities without adequate drinking water.
 Sec. 104. Competitive grant program for the funding of water recycling and reuse projects.
 Sec. 105. Increased funding for water management improvement.
 Sec. 106. Rural water supply program reauthorization.

TITLE II—ECOSYSTEM PROTECTION AND RESTORATION

- Sec. 201. Competitive grant program for the funding of watershed health projects.
 Sec. 202. Cooperative Watershed Management Program.
 Sec. 203. Support for refuge water deliveries.
 Sec. 204. Drought planning and preparedness for critically important fisheries.
 Sec. 205. Aquatic ecosystem restoration.

TITLE III—IMPROVED TECHNOLOGY AND DATA

- Sec. 301. Determination of water supply allocations.
 Sec. 302. Study examining climate vulnerabilities at Federal dams.

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) **RECLAMATION STATE.**—The term “Reclamation State” has the meaning given the term in
 4 section 4014 of the Water Infrastructure Improvements for the Nation Act (43 U.S.C. 390b note;
 5 Public Law 114–322).
 6
 7

8 (2) **RELEVANT COMMITTEES OF CONGRESS.**—
 9 The term “relevant committees of Congress”
 10 means—

11 (A) the Committee on Natural Resources
 12 of the House of Representatives; and

13 (B) the Committee on Energy and Natural
 14 Resources of the Senate.

15 (3) **SECRETARY.**—The term “Secretary” means
 16 the Secretary of the Interior.

1 **TITLE I—INVESTMENTS IN**
2 **WATER INFRASTRUCTURE**
3 **AND SUSTAINABILITY**

4 **SEC. 101. FINDINGS.**

5 Congress finds that—

6 (1)(A) everyone has the right to clean and safe
7 drinking water and appropriate sanitation services;
8 and

9 (B) the Federal Government has the responsi-
10 bility to ensure that the rights described in subpara-
11 graph (A) are realized;

12 (2) water is an essential resource for farms, cit-
13 ies, and the environment;

14 (3) in order to responsibly and sustainably
15 manage water, all different types of water, including
16 water that is stored, drinking water, flood waters,
17 wastewater, recycled water, and other types, should
18 be taken into account;

19 (4) climate change will increase the vulner-
20 ability of water supplies for communities and the en-
21 vironment by—

22 (A) increasing the frequency and mag-
23 nitude of droughts and extreme precipitation
24 events;

25 (B) increasing air temperatures; and

1 (C) changing the patterns and volume of
2 precipitation;

3 (5) the water infrastructure of the United
4 States needs additional investment given the age of
5 the infrastructure and emerging issues, such as cli-
6 mate change;

7 (6) a diverse portfolio of water management,
8 storage, recycling, and reuse techniques can help to
9 sustainably and responsibly manage water in the
10 United States;

11 (7) reducing water diversions from rivers and
12 lakes is important to sustain—

13 (A) native fish and wildlife; and

14 (B) the communities and Native American
15 Tribes that depend on a healthy environment;

16 (8) a sustainable water supply relies on—

17 (A) environmentally sound water storage
18 projects;

19 (B) protection of clean water programs;

20 (C) financing for new technologies;

21 (D) developments and funding for water
22 recycling and reuse projects;

23 (E) improvements to wastewater systems
24 and flood management;

1 (F) increased conservation programs and
2 water efficiency; and

3 (G) instream flows of adequate quality and
4 quantity that protect native fish and wildlife
5 and the environment;

6 (9) the entire Western United States is facing
7 projections of prolonged droughts that will leave
8 Western States facing major water shortages and
9 catastrophic wildfires;

10 (10) recent periods of severe drought in the
11 Western States have occurred with higher tempera-
12 tures and reduced snowpack;

13 (11) the Colorado River has been under
14 drought conditions since 2000;

15 (12) the chances of a climate change-induced
16 “megadrought” striking the Southwest and central
17 Great Plains are on the rise; and

18 (13) robust Federal investment and support is
19 needed to assist the Western States in developing fu-
20 ture drought resiliency in the face of climate change,
21 which will continue to exacerbate existing water sup-
22 ply challenges in an already arid region of the
23 United States.

1 **SEC. 102. RECLAMATION INFRASTRUCTURE FINANCE AND**
2 **INNOVATION PROGRAM.**

3 (a) **ESTABLISHMENT.**—The Secretary shall establish
4 and carry out a program under which the Secretary shall
5 provide to eligible entities described in subsection (c) fi-
6 nancial assistance in accordance with this section to carry
7 out eligible projects described in subsection (b).

8 (b) **ELIGIBLE PROJECTS AND ELIGIBLE PROJECT**
9 **COSTS.**—

10 (1) **IN GENERAL.**—A project eligible to receive
11 assistance under the program under this section is
12 a water supply project described in paragraph (2)
13 that, as determined by the Secretary—

14 (A) is located in—

- 15 (i) the State of Alaska;
16 (ii) the State of Hawaii; or
17 (iii) a Reclamation State;

18 (B) would contribute directly or indirectly
19 (including through groundwater recharge) to a
20 safe, adequate water supply for domestic, agri-
21 cultural, environmental, municipal, or industrial
22 use;

23 (C) complies with all applicable State and
24 Federal laws;

25 (D) would provide net ecosystem benefits
26 in excess of required environmental mitigation

1 measures or compliance obligations pursuant to
2 State and Federal law, as described in para-
3 graph (6);

4 (E) uses natural infrastructure and na-
5 ture-based solutions where practicable;

6 (F) is economically feasible; and

7 (G) is otherwise eligible for assistance
8 under this section.

9 (2) WATER SUPPLY PROJECTS.—A water sup-
10 ply project referred to in paragraph (1) is—

11 (A) a project for the reclamation and reuse
12 of municipal, industrial, domestic, and agricul-
13 tural wastewater, and naturally impaired
14 ground water, which the Secretary, acting
15 through the Commissioner of Reclamation, is
16 authorized to undertake;

17 (B) any water infrastructure project not
18 specifically authorized by law that—

19 (i) the Secretary determines, through
20 the completion of an appraisal investiga-
21 tion and feasibility study, would contribute
22 to a safe, adequate water supply for do-
23 mestic, agricultural, environmental, munic-
24 ipal, or industrial use; and

1 (ii) is otherwise eligible for assistance
2 under this section;

3 (C) a new water infrastructure facility
4 project, including a water conduit, pipeline,
5 canal, pumping, power, and any associated fa-
6 cility;

7 (D) a project for enhanced energy effi-
8 ciency in the operation of a water system;

9 (E) a project for accelerated repair and re-
10 placement of all or a portion of an aging water
11 distribution or conveyance facility;

12 (F) a brackish desalination project;

13 (G) a project for the acquisition of real
14 property or an interest in real property for
15 water storage, reclaimed or recycled water, or
16 wastewater, if the acquisition is integral to a
17 project described in subparagraphs (A) through
18 (F);

19 (H) a project to deliver water to wildlife
20 refuges;

21 (I) a stormwater capture project; or

22 (J) a combination of projects, each of
23 which is eligible under subparagraphs (A)
24 through (I), for which an eligible entity submits
25 a single application.

1 (3) ELIGIBLE PROJECT COSTS.—An eligible
2 project cost that is eligible for assistance under this
3 section—

4 (A) shall be limited to a nonreimbursable
5 cost for elements of a project that would
6 achieve public benefits under the reclamation
7 laws; and

8 (B) includes the cost of—

9 (i) development-phase activities, in-
10 cluding planning, feasibility analysis, rev-
11 enue forecasting, environmental review,
12 permitting, transaction costs, preliminary
13 engineering and design work, and other
14 preconstruction activities;

15 (ii) construction, reconstruction, reha-
16 bilitation, and replacement activities;

17 (iii) the acquisition of real property
18 (including water rights, land relating to
19 the eligible project, and improvements to
20 land), environmental mitigation, construc-
21 tion contingencies, and acquisition of
22 equipment;

23 (iv) capitalized interest necessary to
24 meet market requirements, reasonably re-
25 quired reserve funds, capital issuance ex-

1 penses, and other carrying costs during
2 construction;

3 (v) refinancing interim construction
4 funding, long-term project obligations, or a
5 secured loan, loan guarantee, or other
6 credit enhancement made under this sec-
7 tion;

8 (vi) refinancing long-term project obli-
9 gations or Federal credit instruments, if
10 that refinancing provides additional fund-
11 ing capacity for the completion, enhance-
12 ment, or expansion of any eligible project
13 selected for assistance under this section;

14 (vii) reimbursement or success pay-
15 ments to any public or private entity that
16 achieves predetermined outcomes on a pay-
17 for-performance or pay-for-success basis;
18 and

19 (viii) grants, loans, or credit enhance-
20 ment for community development financial
21 institutions, green banks, and other finan-
22 cial intermediaries providing ongoing fi-
23 nance for eligible projects that meet the
24 purposes of this section.

1 (4) SMALL COMMUNITY PROJECTS.—For
2 projects eligible for assistance under this section and
3 section 5028(a)(2)(B) of the Water Resources Re-
4 form and Development Act of 2014 (33 U.S.C.
5 3907(a)(2)(B)), the Secretary may assist applicants
6 in combining 1 or more projects into a single appli-
7 cation in order to meet the minimum project cost of
8 \$5,000,000 required under that section.

9 (5) COST-SHARING REQUIREMENT; CERTAIN
10 USES.—

11 (A) COST SHARING.—The Federal share of
12 the eligible costs of a water supply project
13 under this section shall be not more than 25
14 percent.

15 (B) CERTAIN USES.—A water supply
16 project that receives assistance under this sec-
17 tion may use not more than 5 percent of
18 amounts made available under this section to
19 carry out activities to demonstrate progress to-
20 ward the goals of the water supply project.

21 (6) DETERMINATION OF NET ECOSYSTEM BEN-
22 EFITS.—

23 (A) DRAFT REPORT.—

24 (i) IN GENERAL.—Using the best
25 available scientific information and data,

1 the Director of the United States Fish and
2 Wildlife Service shall prepare a draft re-
3 port that evaluates the ecosystem impacts
4 and benefits of each proposed water supply
5 project being considered for financial as-
6 sistance under this section.

7 (ii) COORDINATION.—A draft report
8 required under clause (i) shall be prepared
9 in coordination with the head of the State
10 agency with jurisdiction over the fish and
11 wildlife resources of the State in which the
12 water supply project is proposed to be car-
13 ried out.

14 (iii) APPLICABLE LAW; REQUIRE-
15 MENTS.—A draft report prepared under
16 clause (i) shall—

17 (I) meet the requirements of sec-
18 tion 2(b) of the Fish and Wildlife Co-
19 ordination Act (16 U.S.C. 662(b));

20 (II) quantify and estimate the
21 ecosystem benefits and adverse im-
22 pacts to native fish and wildlife from
23 the proposed water supply project;
24 and

1 (III) evaluate whether the eco-
2 system benefits of the proposed water
3 supply project are likely to exceed the
4 ecosystem impacts of the proposed
5 water supply project.

6 (iv) REVIEW; AVAILABILITY.—The Di-
7 rector of the United States Fish and Wild-
8 life Service shall ensure that a draft report
9 prepared under clause (i) is—

10 (I) reviewed by independent sci-
11 entists; and

12 (II) made available for a public
13 review and comment period of not less
14 than 30 days.

15 (B) FINAL REPORT.—

16 (i) IN GENERAL.—The Director of the
17 United States Fish and Wildlife Service
18 shall prepare a final report based on the
19 applicable draft report prepared under sub-
20 paragraph (A)(i), after considering the re-
21 sults of the independent scientific peer re-
22 view and public comment processes under
23 subparagraph (A)(iv).

1 (ii) TRANSMISSION; AVAILABILITY.—A
2 final report prepared under clause (i) shall
3 be—

4 (I) transmitted to—

5 (aa) the project applicant;

6 (bb) the relevant State agen-
7 cy; and

8 (cc) the relevant committees
9 of Congress; and

10 (II) made available to the public.

11 (iii) DETERMINATION.—If a final re-
12 port prepared under clause (i) determines
13 that the water supply project provides net
14 ecosystem benefits, the proposed water
15 supply project shall be eligible for financial
16 assistance under this section.

17 (iv) RECOMMENDATIONS.—If a final
18 report determines that the proposed water
19 supply project fails to provide a net eco-
20 system improvement, the final report may
21 identify potential recommendations to re-
22 duce adverse environmental impacts and
23 improve environmental benefits of the pro-
24 posed water supply project.

1 (v) FINAL AGENCY ACTION.—A final
2 report prepared under clause (i) shall be
3 considered to be a final agency action for
4 purposes of section 704 of title 5, United
5 States Code.

6 (vi) JUDICIAL REVIEW.—A final re-
7 port prepared under clause (i) shall be sub-
8 ject to review in the Federal district court
9 of the State in which the project is pro-
10 posed to be constructed if a petition for re-
11 view is filed with the court not later than
12 180 days after the date on which the final
13 report is transmitted under clause (ii).

14 (c) ELIGIBLE ENTITIES.—The following entities are
15 eligible to receive assistance under this section:

16 (1) An entity described in section 5025 of the
17 Water Resources Reform and Development Act of
18 2014 (33 U.S.C. 3904).

19 (2) A conservancy district, Reclamation district,
20 or irrigation district.

21 (3) A canal company or mutual water company.

22 (4) A water users' association.

23 (5) An agency established by an interstate com-
24 pact.

1 (6) Any other individual or entity that has the
2 capacity to contract with the United States under
3 the reclamation laws.

4 (d) REQUIREMENTS.—

5 (1) PROJECT SELECTION.—In selecting eligible
6 projects to receive assistance under the program
7 under this section, the Secretary shall ensure diver-
8 sity with respect to—

9 (A) project type; and

10 (B) geographical location within the States
11 referred to in subsection (b)(1)(A).

12 (2) PRIORITY.—In selecting eligible projects to
13 receive assistance under this section, the Secretary
14 shall prioritize projects that—

15 (A) would benefit—

16 (i) low-income communities; or

17 (ii)(I) communities particularly at risk
18 to the impacts of climate change; and

19 (II) environmentally at-risk commu-
20 nities;

21 (B) to the maximum extent practicable, in-
22 corporate green and natural infrastructure com-
23 ponents; and

24 (C) achieve multiple public benefits.

1 (3) IMPORTATION OF OTHER REQUIREMENTS.—

2 The following provisions of law shall apply to the
3 program under this section:

4 (A) Sections 5022, 5024, 5027, 5028,
5 5029, 5030, 5031, 5032, and 5034(a) of the
6 Water Resources Reform and Development Act
7 of 2014 (33 U.S.C. 3901, 3903, 3906, 3907,
8 3908, 3909, 3910, 3911, and 3913(a)), except
9 that—

10 (i) any reference contained in those
11 sections to the Secretary of the Army shall
12 be considered to be a reference to the Sec-
13 retary;

14 (ii) any reference contained in those
15 sections to an eligible project shall be con-
16 sidered to be a reference to an eligible
17 project described in subsection (b);

18 (iii) paragraphs (1)(E) and (6)(B) of
19 subsection (a), and subsection (b)(3), of
20 section 5028 of that Act (33 U.S.C. 3907)
21 shall not apply with respect to this section;
22 and

23 (iv) subsections (e) and (f) of section
24 5030 of that Act (33 U.S.C. 3909) shall
25 not apply with respect to this section.

1 (B) The agreement between the Adminis-
2 trator of the Environmental Protection Agency
3 and the Commissioner of Reclamation required
4 under section 4301 of the America’s Water In-
5 frastructure Act of 2018 (Public Law 115–
6 270).

7 (C) Other applicable environmental laws,
8 including the National Environmental Policy
9 Act of 1969 (42 U.S.C. 4321 et seq.).

10 (e) AUTHORIZATION OF APPROPRIATIONS.—

11 (1) IN GENERAL.—There is authorized to be
12 appropriated to the Secretary to carry out the pro-
13 gram under this section \$150,000,000 for each of
14 fiscal years 2021 through 2025, to remain available
15 until expended.

16 (2) ADMINISTRATIVE COSTS.—Of the funds
17 made available under paragraph (1), the Secretary
18 may use for administrative costs of carrying out the
19 program under this section (including for the provi-
20 sion of technical assistance to project sponsors pur-
21 suant to paragraph (3), to obtain any necessary ap-
22 proval, and for transfer to the Administrator of the
23 Environmental Protection Agency to provide assist-
24 ance in administering and servicing Federal credit

1 instruments under the program) not more than
2 \$5,000,000 for each applicable fiscal year.

3 (3) SMALL COMMUNITY PROJECTS.—

4 (A) IN GENERAL.—Subject to subpara-
5 graph (B), the Commissioner may use the
6 funds made available under paragraph (2) to
7 provide assistance, including assistance to pay
8 the costs of acquiring the rating opinion letters
9 under paragraph (1)(D) of section 5028(a) of
10 the Water Resources Reform and Development
11 Act of 2014 (33 U.S.C. 3907(a)), to assist
12 project sponsors in obtaining the necessary ap-
13 provals for small community projects that are
14 eligible for assistance under paragraph (2)(B)
15 of that section or subsection (b)(3).

16 (B) LIMITATION.—Assistance provided to
17 a project sponsor under subparagraph (A) may
18 not exceed an amount equal to 75 percent of
19 the total administrative costs incurred by the
20 project sponsor in securing financial assistance
21 under this section.

22 (f) LIMITATION.—No eligible project that receives as-
23 sistance under this section may be financed (directly or
24 indirectly), in whole or in part, with proceeds of any obli-
25 gation the interest on which is exempt from the tax im-

1 posed under chapter 1 of the Internal Revenue Code of
2 1986.

3 (g) EFFECT.—Nothing in this section affects the au-
4 thority of a State or a political subdivision of a State to
5 apply and enforce any environmental laws (including regu-
6 lations) with respect to an eligible project provided assist-
7 ance under this section.

8 **SEC. 103. ASSISTANCE FOR DISADVANTAGED COMMU-**
9 **NITIES WITHOUT ADEQUATE DRINKING**
10 **WATER.**

11 (a) IN GENERAL.—The Secretary shall provide
12 grants within the Reclamation States to assist eligible ap-
13 plicants in planning, designing, or carrying out projects
14 to help disadvantaged communities—

15 (1) meet the primary drinking water standards
16 set by the Federal Safe Drinking Water Act (42
17 U.S.C. 300f et seq.); or

18 (2) address a significant decline in the quantity
19 or quality of drinking water.

20 (b) ELIGIBLE APPLICANTS.—To be eligible to receive
21 a grant under this section, an applicant shall submit an
22 application to the Secretary that includes a proposal of
23 the project or activity in subsection (c) to be planned, de-
24 signed, constructed, or implemented, the service area of
25 which—

1 (1) shall not be located in any city or town with
2 a population of more than 60,000 residents; and

3 (2) has a median household income of less than
4 100 percent of the nonmetropolitan median house-
5 hold income of the State.

6 (c) ELIGIBLE PROJECTS.—Projects eligible for
7 grants under this program may be used for—

8 (1) emergency water supplies;

9 (2) point-of-use treatment and point-of-entry
10 systems;

11 (3) distributed treatment facilities;

12 (4) construction of new wells and connections to
13 existing water source systems;

14 (5) water distribution facilities;

15 (6) connection fees to existing systems;

16 (7) assistance to households to connect to water
17 facilities;

18 (8) local resource sharing, including voluntary
19 agreements between water systems to jointly con-
20 tract for services or equipment, or to study or imple-
21 ment the physical consolidation of 2 or more water
22 systems;

23 (9) technical assistance, planning, and design
24 for any of the activities described in paragraphs (1)
25 through (8); or

1 (10) any combination of activities described in
2 paragraphs (1) through (9).

3 (d) PRIORITIZATION.—In determining priorities for
4 funding projects, the Secretary shall take into consider-
5 ation—

6 (1) where water outages or the failure to meet
7 drinking water standards—

8 (A) are most serious; and

9 (B) pose the greatest threat to public
10 health and safety;

11 (2) the degree to which the project provides a
12 long-term solution to the water needs of the commu-
13 nity; and

14 (3) whether the applicant has the ability to
15 qualify for alternative funding sources.

16 (e) MAXIMUM AMOUNT.—The amount of a grant pro-
17 vided under this section may be up to 100 percent of costs,
18 including—

19 (1) initial operation costs incurred for startup
20 and testing of project facilities;

21 (2) costs of components to ensure such facilities
22 and components are properly operational; and

23 (3) costs of operation or maintenance incurred
24 subsequent to placing the facilities or components
25 into service.

1 (f) AUTHORIZATION OF APPROPRIATIONS.—There is
2 authorized to be appropriated to carry out this section
3 \$100,000,000, to remain available until expended.

4 (g) COORDINATION REQUIRED.—In carrying out this
5 section, the Secretary shall consult with the Secretary of
6 Agriculture and the Administrator of the Environmental
7 Protection Agency to identify opportunities to improve the
8 efficiency, effectiveness, and impact of grants provided
9 under this section and under comparable programs that
10 address water and wastewater supply, quality, and treat-
11 ment needs in disadvantaged communities.

12 **SEC. 104. COMPETITIVE GRANT PROGRAM FOR THE FUND-**
13 **ING OF WATER RECYCLING AND REUSE**
14 **PROJECTS.**

15 (a) COMPETITIVE GRANT PROGRAM FOR THE FUND-
16 ING OF WATER RECYCLING AND REUSE PROJECTS.—Sec-
17 tion 1602(f) of the Reclamation Wastewater and Ground-
18 water Study and Facilities Act (43 U.S.C. 390h(f)) is
19 amended by striking paragraphs (2) and (3) and inserting
20 the following:

21 “(2) PRIORITY.—In providing grants under
22 paragraph (1), the Secretary shall give priority to
23 projects that—

1 “(A) are likely to provide a more-reliable
2 water supply for a unit of State, local, or Tribal
3 government;

4 “(B) are likely to increase the water man-
5 agement flexibility and reduce impacts on envi-
6 ronmental resources;

7 “(C) are regional in nature;

8 “(D) involve multiple stakeholders;

9 “(E) provide multiple benefits, including
10 water supply reliability, ecosystem benefits,
11 groundwater management and enhancements,
12 and water quality improvements;

13 “(F) would benefit low-income commu-
14 nities; or

15 “(G) would protect communities particu-
16 larly at risk to climate change and environ-
17 mental degradation.”.

18 (b) AUTHORIZATION OF APPROPRIATIONS.—Section
19 1602(g) of the Reclamation Wastewater and Groundwater
20 Study and Facilities Act (43 U.S.C. 390h(g)) is amend-
21 ed—

22 (1) in paragraph (1), by striking
23 “\$50,000,000” and inserting “\$500,000,000”; and

1 **TITLE II—ECOSYSTEM PROTEC-**
2 **TION AND RESTORATION**

3 **SEC. 201. COMPETITIVE GRANT PROGRAM FOR THE FUND-**
4 **ING OF WATERSHED HEALTH PROJECTS.**

5 (a) IN GENERAL.—Not later than 1 year after the
6 date of enactment of this Act and in accordance with this
7 section, the Secretary, in consultation with the heads of
8 relevant agencies, shall establish a competitive grant pro-
9 gram to award grants to an eligible entity for habitat res-
10 toration projects that improve watershed health in a Rec-
11 lamation State and accomplish 1 or more of the following
12 benefits:

13 (1) Ecosystem benefits.

14 (2) Restoration of native species beyond exist-
15 ing or planned measures necessary to meet State or
16 Federal laws for species recovery.

17 (3) Protection against invasive species.

18 (4) Restoration of aspects of the natural eco-
19 system.

20 (5) Enhancement of commercial and rec-
21 reational fishing.

22 (6) Enhancement of river-based recreation such
23 as kayaking, canoeing, and rafting.

24 (7) Mitigate against the impacts of climate
25 change to fish and wildlife habitats.

1 (b) REQUIREMENTS.—

2 (1) IN GENERAL.—In awarding a grant under
3 subsection (a), the Secretary—

4 (A) shall give priority to a project that
5 achieves more than 1 of the benefits listed in
6 subsection (a); and

7 (B) may not provide a grant for a project
8 that is for the purpose of meeting existing envi-
9 ronmental mitigation or compliance obligations
10 under State or Federal law.

11 (2) COMPLIANCE.—A project awarded a grant
12 under subsection (a) shall comply with all applicable
13 Federal and State laws.

14 (c) DEFINITION OF ELIGIBLE ENTITY.—In this sec-
15 tion, the term “eligible entity” means a State, Indian
16 Tribe, nonprofit conservation organization operating in a
17 Reclamation State, irrigation district, water district, or
18 other organization with water or power delivery authority.

19 (d) PUBLIC PARTICIPATION.—Before the establish-
20 ment of the program under subsection (a), the Secretary
21 shall—

22 (1) provide notice of and, for a period of not
23 less than 90 days, an opportunity for public com-
24 ment on, any draft or proposed version of the pro-

1 and divisible segment of a larger municipality) with
2 an annual median household income that is less than
3 100 percent of the statewide annual median house-
4 hold income for the State in which the community
5 is located, according to the most recent decennial
6 census.”;

7 (3) in paragraph (6)(B)(i) (as so redesign-
8 nated)—

9 (A) in subclause (VIII), by striking “and”
10 at the end;

11 (B) in subclause (IX), by adding “and”
12 after the semicolon at the end; and

13 (C) by adding at the end the following:

14 “(X) disadvantaged commu-
15 nities;”; and

16 (4) in paragraph (7) (as so redesignated)—

17 (A) in subparagraph (D), by striking “or”
18 at the end;

19 (B) by redesignating subparagraph (E) as
20 subparagraph (F); and

21 (C) by inserting after subparagraph (D)
22 the following:

23 “(E) generates environmental benefits,
24 such as benefits to fisheries, wildlife and habi-
25 tat, and water quality and water-dependent eco-

1 logical systems, and water supply benefits for
2 agricultural or urban water users; or”.

3 (b) APPLICATION.—Section 6002 of the Omnibus
4 Public Lands Management Act (16 U.S.C. 1015a) is
5 amended—

6 (1) by striking subsection (b) and inserting the
7 following:

8 “(b) ESTABLISHMENT OF APPLICATION PROCESS;
9 CRITERIA.—Not later than March 30, 2021, the Secretary
10 shall update—

11 “(1) the application process for the program;
12 and

13 “(2) in consultation with the States, the
14 prioritization and eligibility criteria for considering
15 applications submitted in accordance with the appli-
16 cation process.”; and

17 (2) by striking subsection (g) and inserting the
18 following:

19 “(g) AUTHORIZATION OF APPROPRIATIONS.—There
20 are authorized to be appropriated to carry out this sec-
21 tion—

22 “(1) \$20,000,000 for each of fiscal years 2012
23 through 2020; and

24 “(2) \$40,000,000 for each of fiscal years 2021
25 through 2025.”.

1 **SEC. 203. SUPPORT FOR REFUGE WATER DELIVERIES.**

2 (a) REPORT ON HISTORIC REFUGE WATER DELIV-
3 ERIES.—Not later than 90 days after the date of enact-
4 ment of this Act, the Secretary shall submit to the relevant
5 committees of Congress and make publicly available a re-
6 port that describes the following:

7 (1) Compliance with section 3406(d)(1) and
8 section 3406(d)(2) of the Central Valley Project Im-
9 provement Act (title XXXIV of Public Law 102–
10 575) in each of years 1992 through 2018, including
11 an indication of the amount of water identified as
12 the Level 2 amount and incremental Level 4 amount
13 for each wetland area.

14 (2) The difference between the mandated quan-
15 tity of water to be delivered to each wetland habitat
16 area described in section 3406(d)(2) and the actual
17 quantity of water delivered since October 30, 1992,
18 including a listing of every year in which the full de-
19 livery of water to wetland habitat areas was achieved
20 in accordance with level 4 of the “Dependable Water
21 Supply Needs” table, described in section
22 3406(d)(2) of the Central Valley Project Improve-
23 ment Act (title XXXIV of Public Law 102–575).

24 (3) Which of the authorities granted to the Sec-
25 retary under Public Law 102–575 to achieve the full
26 level 4 deliveries of water to wetland habitat areas

1 was employed in achieving the increment of water
2 delivery above the Level 2 amount for each wetland
3 habitat area, including whether water conservation,
4 conjunctive use, water purchases, water leases, dona-
5 tions, water banking, or other authorized activities
6 have been used and the extent to which such au-
7 thorities have been used.

8 (4) An assessment of the degree to which the
9 elimination of water transaction fees for the dona-
10 tion of water rights to wildlife refuges would help
11 advance the goals of the Central Valley Project Im-
12 provement Act (title XXXIV of Public Law 102–
13 575).

14 (b) PRIORITY CONSTRUCTION LIST.—The Secretary
15 shall establish, through a public process and in consulta-
16 tion with the Interagency Refuge Water Management
17 Team, a priority list for the completion of the conveyance
18 construction projects at the wildlife habitat areas de-
19 scribed in section 3406(d)(2) of the Central Valley Project
20 Improvement Act (title XXXIV of Public Law 102–575),
21 including the Mendota Wildlife Area, Pixley National
22 Wildlife Refuge and Sutter National Wildlife Refuge.

23 (c) ECOLOGICAL MONITORING AND EVALUATION
24 PROGRAM.—Not later than 1 year after the date of enact-
25 ment of this Act, the Secretary, acting through the Direc-

1 tor of the United States Fish and Wildlife Service, shall
2 design and implement an ecological monitoring and eval-
3 uation program, for all Central Valley wildlife refuges,
4 that produces an annual report based on existing and
5 newly collected information, including—

6 (1) the United States Fish and Wildlife Service
7 Animal Health Lab disease reports;

8 (2) mid-winter waterfowl inventories;

9 (3) nesting and brood surveys;

10 (4) additional data collected regularly by the
11 refuges, such as herptile distribution and abundance;

12 (5) a new coordinated systemwide monitoring
13 effort for at least 1 key migrant species and 2 resi-
14 dent species listed as threatened and endangered
15 pursuant to the Endangered Species Act of 1973
16 (16 U.S.C. 1531 et seq.) (including one warm-blood-
17 ed and one cold-blooded), that identifies population
18 numbers and survival rates for the 3 previous years;
19 and

20 (6) an estimate of the bioenergetic food produc-
21 tion benefits to migrant waterfowl, consistent with
22 the methodology used by the Central Valley Joint
23 Venture, to compliment and inform the Central Val-
24 ley Joint Venture implementation plan.

1 (d) ADEQUATE STAFFING FOR REFUGE WATER DE-
 2 LIVERY OBJECTIVES.—The Secretary shall ensure that
 3 adequate staffing is provided to advance the refuge water
 4 supply delivery objectives under the Central Valley Project
 5 Improvement Act (title XXXIV of Public Law 102–575).

6 (e) FUNDING.—There is authorized to be appro-
 7 priated \$25,000,000 to carry out subsections (a) through
 8 (d), which shall remain available until expended.

9 (f) EFFECT ON OTHER FUNDS.—Amounts author-
 10 ized under this section shall be in addition to amounts col-
 11 lected or appropriated under the Central Valley Project
 12 Improvement Act (title XXXIV of Public Law 102–575).

13 **SEC. 204. DROUGHT PLANNING AND PREPAREDNESS FOR**
 14 **CRITICALLY IMPORTANT FISHERIES.**

15 (a) DEFINITIONS.—In this section:

16 (1) CRITICALLY IMPORTANT FISHERIES.—The
 17 term “critically important fisheries” means—

18 (A) commercially and recreationally impor-
 19 tant fisheries located within the Reclamation
 20 States;

21 (B) fisheries containing fish species that
 22 are listed as threatened or endangered pursuant
 23 to the Endangered Species Act of 1973 (16
 24 U.S.C. 1531 et seq.) within the Reclamation
 25 States; or

1 (C) fisheries used by Indian Tribes within
2 the Reclamation States for ceremonial, subsist-
3 ence, or commercial purposes.

4 (2) QUALIFIED TRIBAL GOVERNMENT.—The
5 term “qualified Tribal Government” means any gov-
6 ernment of an Indian Tribe that the Secretary deter-
7 mines—

8 (A) is involved in fishery management and
9 recovery activities including under the Endan-
10 gered Species Act of 1973 (16 U.S.C. 1531 et
11 seq.); or

12 (B) has the management and organiza-
13 tional capability to maximize the benefits of as-
14 sistance provided under this section.

15 (b) DROUGHT PLAN FOR CRITICALLY IMPORTANT
16 FISHERIES.—Not later than January 1, 2021, and every
17 3 years thereafter, the Secretary, acting through the Di-
18 rector of the United States Fish and Wildlife Service shall,
19 in consultation with the National Marine Fisheries Serv-
20 ice, the Bureau of Reclamation, the Army Corps of Engi-
21 neers, State fish and wildlife agencies, and affected Indian
22 Tribes, prepare a plan to sustain the survival of critically
23 important fisheries within the Reclamation States during
24 future periods of extended drought. The plan shall focus
25 on actions that can aid the survival of critically important

1 fisheries during the driest years. In preparing such plan,
2 the Director shall consider—

3 (1) habitat restoration efforts designed to pro-
4 vide drought refugia and increased fisheries resil-
5 ience during droughts;

6 (2) relocating the release location and timing of
7 hatchery fish to avoid predation and temperature
8 impacts;

9 (3) barging of hatchery release fish to improve
10 survival and reduce straying;

11 (4) coordination with water users, the Bureau
12 of Reclamation, State fish and wildlife agencies, and
13 interested public water agencies regarding voluntary
14 water transfers, including through groundwater sub-
15 stitution activities, to determine if water releases can
16 be collaboratively managed in a way that provides
17 additional benefits for critically important fisheries
18 without negatively impacting wildlife habitat;

19 (5) hatchery management modifications, such
20 as expanding hatchery production of fish during the
21 driest years, if appropriate for a particular river
22 basin;

23 (6) hatchery retrofit projects, such as the in-
24 stallation and operation of filtration equipment and
25 chillers, to reduce disease outbreaks, egg mortality

1 and other impacts of droughts and high water tem-
2 peratures;

3 (7) increasing rescue operations of upstream
4 migrating fish;

5 (8) improving temperature modeling and related
6 forecasted information to predict water management
7 impacts to the habitat of critically important fish-
8 eries with a higher degree of accuracy than current
9 models;

10 (9) testing the potential for parentage-based
11 tagging and other genetic testing technologies to im-
12 prove the management of hatcheries;

13 (10) programs to reduce predation losses at ar-
14 tificially created predation hot spots; and

15 (11) retrofitting existing water facilities to pro-
16 vide improved temperature conditions for fish.

17 (c) PUBLIC COMMENT.—The Director of the United
18 States Fish and Wildlife Service shall provide for a public
19 comment period of not less than 90 days before finalizing
20 a plan under subsection (a).

21 (d) AUTHORIZATION OF APPROPRIATIONS FOR FISH
22 RECOVERY EFFORTS.—There is authorized to be appro-
23 priated \$25,000,000 for the United States Fish and Wild-
24 life Service for fiscal year 2021 for fish, stream, and
25 hatchery activities related to fish recovery efforts, includ-

1 ing work with the National Marine Fisheries Service, the
2 Bureau of Reclamation, the Army Corps of Engineers,
3 State fish and wildlife agencies, or a qualified Tribal Gov-
4 ernment.

5 (e) EFFECT.—Nothing in this section is intended to
6 expand, diminish, or affect any obligation under Federal
7 or State environmental law.

8 **SEC. 205. AQUATIC ECOSYSTEM RESTORATION.**

9 (a) GENERAL AUTHORITY.—Subject to the require-
10 ments of this section, on request of any eligible entity the
11 Secretary may negotiate and enter into an agreement on
12 behalf of the United States to fund the design, study, and
13 construction of an aquatic ecosystem restoration and pro-
14 tection project if the Secretary determines that the project
15 is likely to improve the quality of the environment in a
16 Reclamation State by improving fish passage through the
17 removal or bypass of barriers to fish passage.

18 (b) REQUIREMENTS.—Construction of a project
19 under this section shall be a voluntary project initiated
20 only after—

21 (1) an eligible entity has entered into an agree-
22 ment with the Secretary to pay no less than 35 per-
23 cent of the costs of project construction; and

24 (2) the Secretary determines the proposed
25 project—

1 (A) will not result in an unmitigated ad-
2 verse impact on fulfillment of existing water de-
3 livery obligations consistent with historical oper-
4 ations and applicable contracts;

5 (B) will not result in an unmitigated ad-
6 verse effect on the environment;

7 (C) is consistent with the responsibilities of
8 the Secretary—

9 (i) in the role as trustee for federally
10 recognized Indian Tribes; and

11 (ii) to ensure compliance with any ap-
12 plicable international and Tribal treaties
13 and agreements and interstate compacts
14 and agreements;

15 (D) is in the financial interest of the
16 United States based on a determination that
17 the project advances Federal objectives includ-
18 ing environmental enhancement objectives in a
19 Reclamation State; and

20 (E) protects the public aspects of the eligi-
21 ble facility, including water rights managed for
22 public purposes, such as flood control or fish
23 and wildlife.

24 (c) ENVIRONMENTAL LAWS.—In participating in a
25 project under this section, the Secretary shall comply with

1 all applicable Federal environmental laws, including the
2 National Environmental Policy Act of 1969 (42 U.S.C.
3 4321 et seq.), and all State environmental laws of the Rec-
4 lamation State in which the project is located involving
5 the construction, expansion or operation of a water stor-
6 age project or fish and wildlife protection, provided that
7 no law or regulation of a State or political subdivision of
8 a State relieve the Secretary of any Federal requirement
9 otherwise applicable under this section.

10 (d) FUNDING.—There is authorized to be appro-
11 priated to carry out this section \$25,000,000 for each fis-
12 cal year through fiscal year 2026, to remain available until
13 expended.

14 (e) DEFINITION OF ELIGIBLE ENTITY.—In this sec-
15 tion, the term “eligible entity” means any Reclamation
16 State, any department, agency, or subdivision of a Rec-
17 lamation State, any public agency organized pursuant to
18 the laws of a Reclamation State, an Indian Tribe, or a
19 nonprofit organization operating in a Reclamation State.

20 (f) PRIORITY FOR PROJECTS PROVIDING PUBLIC
21 SAFETY AND REGIONAL BENEFITS.—When funding
22 projects under this section, the Secretary shall prioritize
23 projects that—

24 (1) are likely to provide public safety benefits;
25 and

1 (2) are regional in nature, including projects
2 that span two or more river basins.

3 **TITLE III—IMPROVED**
4 **TECHNOLOGY AND DATA**

5 **SEC. 301. DETERMINATION OF WATER SUPPLY ALLOCA-**
6 **TIONS.**

7 (a) SNOWPACK MEASUREMENT DATA.—When deter-
8 mining water supply allocations, the Secretary, acting
9 through the Commissioner of the Bureau of Reclamation,
10 shall incorporate to the greatest extent practicable infor-
11 mation from emerging technologies for snowpack measure-
12 ment such as—

13 (1) synthetic aperture radar;

14 (2) laser altimetry; or

15 (3) any other emerging technologies that can
16 provide more accurate or timely snowpack measure-
17 ment data as determined by the Secretary.

18 (b) COORDINATION.—In carrying out subsection (a),
19 the Secretary may coordinate data use and collection ef-
20 forts with other Federal agencies and bureaus that cur-
21 rently use or may benefit from the use of emerging tech-
22 nologies for snowpack measurement.

23 (c) AUTHORIZATION OF APPROPRIATIONS.—There is
24 authorized to be appropriated to the Secretary \$5,000,000
25 to carry out this section.

1 (d) REPORT.—Not later than October 1, 2022, the
2 Secretary shall submit to Congress a report summarizing
3 the use of emerging technologies pursuant to this section
4 and describe any benefits derived from the use of such
5 technologies related to the environment and increased
6 water supply reliability.

7 **SEC. 302. STUDY EXAMINING CLIMATE VULNERABILITIES**
8 **AT FEDERAL DAMS.**

9 (a) IN GENERAL.—Not later than 2 years after the
10 date of enactment of this Act, the Secretary shall make
11 appropriate arrangements with the National Academies of
12 Sciences, Engineering, and Medicine (referred to in this
13 section as the “National Academies”) under which the Na-
14 tional Academies shall conduct an independent study to—

15 (1) examine the projected impact of climate
16 change on the safety of Bureau of Reclamation
17 dams; and

18 (2) evaluate and list the Bureau of Reclamation
19 dams that are most vulnerable to climate change re-
20 lated safety risks based on an assessment of climate
21 change related impacts on—

22 (A) the frequency of heavy precipitation
23 events; and

24 (B) other factors that influence the mag-
25 nitude and severity of flooding events including

1 snow cover and snowmelt, vegetation, and soil
2 moisture.

3 (b) REPORT.—In entering into an arrangement under
4 subsection (a), the Secretary shall request that the Na-
5 tional Academies—

6 (1) transmit to the Secretary and to the rel-
7 evant committees of Congress a report not later
8 than 24 months after the date of enactment of this
9 Act that includes the results of the study; and

10 (2) consider any previous studies or evaluations
11 conducted or completed by the Bureau of Reclama-
12 tion or local water agencies on climate change im-
13 pacts to dams, facilities, and watersheds as a ref-
14 erence and source of information during the develop-
15 ment of the independent study.

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