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

IN THE SENATE OF THE UNITED STATES

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

A BILL

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

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

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) Short Title.—This Act may be cited as the “Water for Tomorrow Act of 2020”.

(b) Table of Contents.—The table of contents for 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. 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.

**SEC. 2. DEFINITIONS.**

In this Act:

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

(2) **RELEVANT COMMITTEES OF CONGRESS.**—

The term “relevant committees of Congress” means—

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

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

(3) **SECRETARY.**—The term “Secretary” means the Secretary of the Interior.
TITLE I—INVESTMENTS IN WATER INFRASTRUCTURE AND SUSTAINABILITY

SEC. 101. FINDINGS.

Congress finds that—

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

(B) the Federal Government has the responsibility to ensure that the rights described in subparagraph (A) are realized;

(2) water is an essential resource for farms, cities, and the environment;

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

(4) climate change will increase the vulnerability of water supplies for communities and the environment by—

(A) increasing the frequency and magnitude of droughts and extreme precipitation events;

(B) increasing air temperatures; and
(C) changing the patterns and volume of precipitation;

(5) the water infrastructure of the United States needs additional investment given the age of the infrastructure and emerging issues, such as climate change;

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

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

(A) native fish and wildlife; and

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

(8) a sustainable water supply relies on—

(A) environmentally sound water storage projects;

(B) protection of clean water programs;

(C) financing for new technologies;

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

(E) improvements to wastewater systems and flood management;
(F) increased conservation programs and water efficiency; and

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

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

(10) recent periods of severe drought in the Western States have occurred with higher temperatures and reduced snowpack;

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

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

(13) robust Federal investment and support is needed to assist the Western States in developing future drought resiliency in the face of climate change, which will continue to exacerbate existing water supply challenges in an already arid region of the United States.
SEC. 102. RECLAMATION INFRASTRUCTURE FINANCE AND INNOVATION PROGRAM.

(a) Establishment.—The Secretary shall establish and carry out a program under which the Secretary shall provide to eligible entities described in subsection (c) financial assistance in accordance with this section to carry out eligible projects described in subsection (b).

(b) Eligible Projects and Eligible Project Costs.—

(1) In general.—A project eligible to receive assistance under the program under this section is a water supply project described in paragraph (2) that, as determined by the Secretary—

(A) is located in—

(i) the State of Alaska;

(ii) the State of Hawaii; or

(iii) a Reclamation State;

(B) would contribute directly or indirectly (including through groundwater recharge) to a safe, adequate water supply for domestic, agricultural, environmental, municipal, or industrial use;

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

(D) would provide net ecosystem benefits in excess of required environmental mitigation
measures or compliance obligations pursuant to
State and Federal law, as described in para-
graph (6);

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

(F) is economically feasible; and

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

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

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

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

(i) the Secretary determines, through
the completion of an appraisal investiga-
tion and feasibility study, would contribute
to a safe, adequate water supply for do-

mestic, agricultural, environmental, munici-

pal, or industrial use; and
(ii) is otherwise eligible for assistance under this section;

(C) a new water infrastructure facility project, including a water conduit, pipeline, canal, pumping, power, and any associated facility;

(D) a project for enhanced energy efficiency in the operation of a water system;

(E) a project for accelerated repair and replacement of all or a portion of an aging water distribution or conveyance facility;

(F) a brackish desalination project;

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

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

(I) a stormwater capture project; or

(J) a combination of projects, each of which is eligible under subparagraphs (A) through (I), for which an eligible entity submits a single application.
(3) **Eligible Project Costs.**—An eligible project cost that is eligible for assistance under this section—

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

(B) includes the cost of—

(i) development-phase activities, including planning, feasibility analysis, revenue forecasting, environmental review, permitting, transaction costs, preliminary engineering and design work, and other preconstruction activities;

(ii) construction, reconstruction, rehabilitation, and replacement activities;

(iii) the acquisition of real property (including water rights, land relating to the eligible project, and improvements to land), environmental mitigation, construction contingencies, and acquisition of equipment;

(iv) capitalized interest necessary to meet market requirements, reasonably required reserve funds, capital issuance ex-
expenses, and other carrying costs during construction;

(v) refinancing interim construction funding, long-term project obligations, or a secured loan, loan guarantee, or other credit enhancement made under this section;

(vi) refinancing long-term project obligations or Federal credit instruments, if that refinancing provides additional funding capacity for the completion, enhancement, or expansion of any eligible project selected for assistance under this section;

(vii) reimbursement or success payments to any public or private entity that achieves predetermined outcomes on a pay-for-performance or pay-for-success basis; and

(viii) grants, loans, or credit enhancement for community development financial institutions, green banks, and other financial intermediaries providing ongoing finance for eligible projects that meet the purposes of this section.
(4) SMALL COMMUNITY PROJECTS.—For projects eligible for assistance under this section and section 5028(a)(2)(B) of the Water Resources Reform and Development Act of 2014 (33 U.S.C. 3907(a)(2)(B)), the Secretary may assist applicants in combining 1 or more projects into a single application in order to meet the minimum project cost of $5,000,000 required under that section.

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

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

(B) CERTAIN USES.—A water supply project that receives assistance under this section may use not more than 5 percent of amounts made available under this section to carry out activities to demonstrate progress toward the goals of the water supply project.

(6) DETERMINATION OF NET ECOSYSTEM BENEFITS.—

(A) DRAFT REPORT.—

(i) IN GENERAL.—Using the best available scientific information and data,
the Director of the United States Fish and Wildlife Service shall prepare a draft report that evaluates the ecosystem impacts and benefits of each proposed water supply project being considered for financial assistance under this section.

(ii) COORDINATION.—A draft report required under clause (i) shall be prepared in coordination with the head of the State agency with jurisdiction over the fish and wildlife resources of the State in which the water supply project is proposed to be carried out.

(iii) APPLICABLE LAW; REQUIREMENTS.—A draft report prepared under clause (i) shall—

(I) meet the requirements of section 2(b) of the Fish and Wildlife Coordination Act (16 U.S.C. 662(b));

(II) quantify and estimate the ecosystem benefits and adverse impacts to native fish and wildlife from the proposed water supply project; and
(III) evaluate whether the ecosystem benefits of the proposed water supply project are likely to exceed the ecosystem impacts of the proposed water supply project.

(iv) REVIEW; AVAILABILITY.—The Director of the United States Fish and Wildlife Service shall ensure that a draft report prepared under clause (i) is—

(I) reviewed by independent scientists; and

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

(B) FINAL REPORT.—

(i) IN GENERAL.—The Director of the United States Fish and Wildlife Service shall prepare a final report based on the applicable draft report prepared under subparagraph (A)(i), after considering the results of the independent scientific peer review and public comment processes under subparagraph (A)(iv).
(ii) TRANSMISSION; AVAILABILITY.—A final report prepared under clause (i) shall be—

(I) transmitted to—

(aa) the project applicant;

(bb) the relevant State agency; and

(cc) the relevant committees of Congress; and

(II) made available to the public.

(iii) DETERMINATION.—If a final report prepared under clause (i) determines that the water supply project provides net ecosystem benefits, the proposed water supply project shall be eligible for financial assistance under this section.

(iv) RECOMMENDATIONS.—If a final report determines that the proposed water supply project fails to provide a net ecosystem improvement, the final report may identify potential recommendations to reduce adverse environmental impacts and improve environmental benefits of the proposed water supply project.
(v) **Final Agency Action.**—A final report prepared under clause (i) shall be considered to be a final agency action for purposes of section 704 of title 5, United States Code.

(vi) **Judicial Review.**—A final report prepared under clause (i) shall be subject to review in the Federal district court of the State in which the project is proposed to be constructed if a petition for review is filed with the court not later than 180 days after the date on which the final report is transmitted under clause (ii).

(e) **Eligible Entities.**—The following entities are eligible to receive assistance under this section:

2. A conservancy district, Reclamation district, or irrigation district.
3. A canal company or mutual water company.
4. A water users’ association.
5. An agency established by an interstate compact.
(6) Any other individual or entity that has the capacity to contract with the United States under the reclamation laws.

(d) REQUIREMENTS.—

(1) PROJECT SELECTION.—In selecting eligible projects to receive assistance under the program under this section, the Secretary shall ensure diversity with respect to—

(A) project type; and

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

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

(A) would benefit—

(i) low-income communities; or

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

(II) environmentally at-risk communities;

(B) to the maximum extent practicable, incorporate green and natural infrastructure components; and

(C) achieve multiple public benefits.
(3) IMPORTATION OF OTHER REQUIREMENTS.—

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

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

(i) any reference contained in those sections to the Secretary of the Army shall be considered to be a reference to the Secretary;

(ii) any reference contained in those sections to an eligible project shall be considered to be a reference to an eligible project described in subsection (b);

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

(iv) subsections (e) and (f) of section 5030 of that Act (33 U.S.C. 3909) shall not apply with respect to this section.
(B) The agreement between the Administrator of the Environmental Protection Agency and the Commissioner of Reclamation required under section 4301 of the America’s Water Infrastructure Act of 2018 (Public Law 115–270).

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

(e) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There is authorized to be appropriated to the Secretary to carry out the program under this section $150,000,000 for each of fiscal years 2021 through 2025, to remain available until expended.

(2) ADMINISTRATIVE COSTS.—Of the funds made available under paragraph (1), the Secretary may use for administrative costs of carrying out the program under this section (including for the provision of technical assistance to project sponsors pursuant to paragraph (3), to obtain any necessary approval, and for transfer to the Administrator of the Environmental Protection Agency to provide assistance in administering and servicing Federal credit
instruments under the program) not more than $5,000,000 for each applicable fiscal year.

(3) SMALL COMMUNITY PROJECTS.—

(A) IN GENERAL.—Subject to subparagraph (B), the Commissioner may use the funds made available under paragraph (2) to provide assistance, including assistance to pay the costs of acquiring the rating opinion letters under paragraph (1)(D) of section 5028(a) of the Water Resources Reform and Development Act of 2014 (33 U.S.C. 3907(a)), to assist project sponsors in obtaining the necessary approvals for small community projects that are eligible for assistance under paragraph (2)(B) of that section or subsection (b)(3).

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

(f) LIMITATION.—No eligible project that receives assistance under this section may be financed (directly or indirectly), in whole or in part, with proceeds of any obligation the interest on which is exempt from the tax im-

(g) Effect.—Nothing in this section affects the authority of a State or a political subdivision of a State to apply and enforce any environmental laws (including regulations) with respect to an eligible project provided assistance under this section.

SEC. 103. ASSISTANCE FOR DISADVANTAGED COMMUNITIES WITHOUT ADEQUATE DRINKING WATER.

(a) In General.—The Secretary shall provide grants within the Reclamation States to assist eligible applicants in planning, designing, or carrying out projects to help disadvantaged communities—

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

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

(b) Eligible Applicants.—To be eligible to receive a grant under this section, an applicant shall submit an application to the Secretary that includes a proposal of the project or activity in subsection (e) to be planned, designed, constructed, or implemented, the service area of which—
(1) shall not be located in any city or town with a population of more than 60,000 residents; and

(2) has a median household income of less than 100 percent of the nonmetropolitan median household income of the State.

(c) Eligible Projects.—Projects eligible for grants under this program may be used for—

(1) emergency water supplies;

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

(3) distributed treatment facilities;

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

(5) water distribution facilities;

(6) connection fees to existing systems;

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

(8) local resource sharing, including voluntary agreements between water systems to jointly contract for services or equipment, or to study or implement the physical consolidation of 2 or more water systems;

(9) technical assistance, planning, and design for any of the activities described in paragraph (1) through (8); or
(10) any combination of activities described in paragraphs (1) through (9).

(d) PRIORITIZATION.—In determining priorities for funding projects, the Secretary shall take into consideration—

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

(A) are most serious; and

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

(2) the degree to which the project provides a long-term solution to the water needs of the community; and

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

(e) MAXIMUM AMOUNT.—The amount of a grant provided under this section may be up to 100 percent of costs, including—

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

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

(3) costs of operation or maintenance incurred subsequent to placing the facilities or components into service.
(f) Authorization of Appropriations.—There is authorized to be appropriated to carry out this section $100,000,000, to remain available until expended.

(g) Coordination Required.—In carrying out this section, the Secretary shall consult with the Secretary of Agriculture and the Administrator of the Environmental Protection Agency to identify opportunities to improve the efficiency, effectiveness, and impact of grants provided under this section and under comparable programs that address water and wastewater supply, quality, and treatment needs in disadvantaged communities.

Sec. 104. Competitive Grant Program for the Funding of Water Recycling and Reuse Projects.

(a) Competitive Grant Program for the Funding of Water Recycling and Reuse Projects.—Section 1602(f) of the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h(f)) is amended by striking paragraphs (2) and (3) and inserting the following:

“(2) Priority.—In providing grants under paragraph (1), the Secretary shall give priority to projects that—
“(A) are likely to provide a more-reliable water supply for a unit of State, local, or Tribal government;

“(B) are likely to increase the water management flexibility and reduce impacts on environmental resources;

“(C) are regional in nature;

“(D) involve multiple stakeholders;

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

“(F) would benefit low-income communities; or

“(G) would protect communities particularly at-risk to climate change and environmental degradation.”.

(b) Authorization of Appropriations.—Section 1602(g) of the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h(g)) is amended—

(1) in paragraph (1), by striking “$50,000,000” and inserting “$500,000,000”; and
(2) in paragraph (2), by striking “if enacted appropriations legislation designates funding to them by name,”.

(c) LIMITATION ON FUNDING.—Section 1631(d)(1) of the Reclamation Wastewater and Groundwater Study and Facilities Act (43 U.S.C. 390h–13(d)(1)) is amended by striking “$20,000,000 (October 1996 prices)” and inserting “$30,000,000 (January 2019 prices)”.

SEC. 105. INCREASED FUNDING FOR WATER MANAGEMENT IMPROVEMENT.

Section 9504(e) of the Omnibus Public Land Management Act of 2009 (42 U.S.C. 10364(e)) is amended by striking “$530,000,000” and inserting “$700,000,000 for fiscal year 2021 and each fiscal year thereafter”.

SEC. 106. RURAL WATER SUPPLY PROGRAM REAUTHORIZATION.

(a) AUTHORIZATION OF APPROPRIATION.—Section 109(a) of the Rural Water Supply Act of 2006 (43 U.S.C. 2408(a)) is amended by striking “$15,000,000 for each of fiscal years 2007 through 2016” and inserting “$50,000,000 for each of fiscal years 2021 through 2026”.

(b) TERMINATION OF AUTHORITY.—Section 110 of the Rural Water Supply Act of 2006 (43 U.S.C. 2409) is amended by striking “2016” and inserting “2026”.
TITLE II—ECOSYSTEM PROTECTION AND RESTORATION

SEC. 201. COMPETITIVE GRANT PROGRAM FOR THE FUNDING OF WATERSHED HEALTH PROJECTS.

(a) In general.—Not later than 1 year after the date of enactment of this Act and in accordance with this section, the Secretary, in consultation with the heads of relevant agencies, shall establish a competitive grant program to award grants to an eligible entity for habitat restoration projects that improve watershed health in a Reclamation State and accomplish 1 or more of the following benefits:

(1) Ecosystem benefits.

(2) Restoration of native species beyond existing or planned measures necessary to meet State or Federal laws for species recovery.

(3) Protection against invasive species.

(4) Restoration of aspects of the natural ecosystem.

(5) Enhancement of commercial and recreational fishing.

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

(7) Mitigate against the impacts of climate change to fish and wildlife habitats.
(b) REQUIREMENTS.—

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

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

(B) may not provide a grant for a project that is for the purpose of meeting existing environmental mitigation or compliance obligations under State or Federal law.

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

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

(d) PUBLIC PARTICIPATION.—Before the establishment of the program under subsection (a), the Secretary shall—

(1) provide notice of and, for a period of not less than 90 days, an opportunity for public comment on, any draft or proposed version of the pro-
gram requirements in accordance with this section; 
and 
(2) consider public comments received in developing the final program requirements.

(e) REPORT.—Not later than October 1, 2022, and every 2 years thereafter, the Secretary shall submit to Congress a report summarizing the environmental performance of activities that are receiving, or have received, assistance under the program authorized by this section.

(f) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $150,000,000 for each fiscal year through fiscal year 2026, to remain available until expended.

SEC. 202. COOPERATIVE WATERSHED MANAGEMENT PROGRAM.

(a) DEFINITIONS.—Section 6001 of the Omnibus Public Land Management Act of 2009 (16 U.S.C. 1015) is amended— 
(1) by redesignating paragraphs (2) through (6) as paragraphs (3) through (7), respectively; 
(2) by inserting after paragraph (1) the following:

“(2) DISADVANTAGED COMMUNITY.—The term ‘disadvantaged community’ means a community (in-
cluding a city, town, county, or reasonably isolated
and divisible segment of a larger municipality) with an annual median household income that is less than 100 percent of the statewide annual median household income for the State in which the community is located, according to the most recent decennial census.”;

(3) in paragraph (6)(B)(i) (as so redesignated)—

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

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

(C) by adding at the end the following:

“(X) disadvantaged communities;”; and

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

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

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

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

“(E) generates environmental benefits, such as benefits to fisheries, wildlife and habitat, and water quality and water-dependent eco-
logical systems, and water supply benefits for agricultural or urban water users; or”.

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

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

“(b) Establishment of Application Process; Criteria.—Not later than March 30, 2021, the Secretary shall update—

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

“(2) in consultation with the States, the prioritization and eligibility criteria for considering applications submitted in accordance with the application process.”; and

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

“(g) Authorization of Appropriations.—There are authorized to be appropriated to carry out this section—

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

“(2) $40,000,000 for each of fiscal years 2021 through 2025.”.
SEC. 203. SUPPORT FOR REFUGE WATER DELIVERIES.

(a) Report on Historic Refuge Water Deliveries.—Not later than 90 days after the date of enactment of this Act, the Secretary shall submit to the relevant committees of Congress and make publicly available a report that describes the following:

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

(2) The difference between the mandated quantity of water to be delivered to each wetland habitat area described in section 3406(d)(2) and the actual quantity of water delivered since October 30, 1992, including a listing of every year in which the full delivery of water to wetland habitat areas was achieved in accordance with level 4 of the “Dependable Water Supply Needs” table, described in section 3406(d)(2) of the Central Valley Project Improvement Act (title XXXIV of Public Law 102–575).

(3) Which of the authorities granted to the Secretary under Public Law 102–575 to achieve the full level 4 deliveries of water to wetland habitat areas
was employed in achieving the increment of water
delivery above the Level 2 amount for each wetland
habitat area, including whether water conservation,
conjunctive use, water purchases, water leases, dona-
tions, water banking, or other authorized activities
have been used and the extent to which such au-
thorities have been used.

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

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

(e) ECOLOGICAL MONITORING AND EVALUATION
PROGRAM.—Not later than 1 year after the date of enact-
ment of this Act, the Secretary, acting through the Direc-
tor of the United States Fish and Wildlife Service, shall
design and implement an ecological monitoring and eval-
uation program, for all Central Valley wildlife refuges,
that produces an annual report based on existing and
newly collected information, including—

(1) the United States Fish and Wildlife Service
Animal Health Lab disease reports;
(2) mid-winter waterfowl inventories;
(3) nesting and brood surveys;
(4) additional data collected regularly by the
refuges, such as herptile distribution and abundance;
(5) a new coordinated systemwide monitoring
effort for at least 1 key migrant species and 2 resi-
dent species listed as threatened and endangered
pursuant to the Endangered Species Act of 1973
(16 U.S.C. 1531 et seq.) (including one warm-blood-
ed and one cold-blooded), that identifies population
numbers and survival rates for the 3 previous years;
and
(6) an estimate of the bioenergetic food produc-
tion benefits to migrant waterfowl, consistent with
the methodology used by the Central Valley Joint
Venture, to compliment and inform the Central Val-
ley Joint Venture implementation plan.
(d) Adequate Staffing for Refuge Water Delivery Objectives.—The Secretary shall ensure that adequate staffing is provided to advance the refuge water supply delivery objectives under the Central Valley Project Improvement Act (title XXXIV of Public Law 102–575).

(e) Funding.—There is authorized to be appropriated $25,000,000 to carry out subsections (a) through (d), which shall remain available until expended.

(f) Effect on Other Funds.—Amounts authorized under this section shall be in addition to amounts collected or appropriated under the Central Valley Project Improvement Act (title XXXIV of Public Law 102–575).

SEC. 204. DROUGHT PLANNING AND PREPAREDNESS FOR CRITICALLY IMPORTANT FISHERIES.

(a) Definitions.—In this section:

(1) Critically important fisheries.—The term “critically important fisheries” means—

   (A) commercially and recreationally important fisheries located within the Reclamation States;

   (B) fisheries containing fish species that are listed as threatened or endangered pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) within the Reclamation States; or
(C) fisheries used by Indian Tribes within
the Reclamation States for ceremonial, subsist-
ence, or commercial purposes.

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

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

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

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

(1) habitat restoration efforts designed to provide drought refugia and increased fisheries resilience during droughts;

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

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

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

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

(6) hatchery retrofit projects, such as the installation and operation of filtration equipment and chillers, to reduce disease outbreaks, egg mortality
and other impacts of droughts and high water temperatures;

(7) increasing rescue operations of upstream migrating fish;

(8) improving temperature modeling and related forecasted information to predict water management impacts to the habitat of critically important fisheries with a higher degree of accuracy than current models;

(9) testing the potential for parentage-based tagging and other genetic testing technologies to improve the management of hatcheries;

(10) programs to reduce predation losses at artificially created predation hot spots; and

(11) retrofitting existing water facilities to provide improved temperature conditions for fish.

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

(d) AUTHORIZATION OF APPROPRIATIONS FOR FISH RECOVERY EFFORTS.—There is authorized to be appropriated $25,000,000 for the United States Fish and Wildlife Service for fiscal year 2021 for fish, stream, and hatchery activities related to fish recovery efforts, includ-
ing work with the National Marine Fisheries Service, the
Bureau of Reclamation, the Army Corps of Engineers,
State fish and wildlife agencies, or a qualified Tribal Gov-
ernment.

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

SEC. 205. AQUATIC ECOSYSTEM RESTORATION.

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

(b) Requirements.—Construction of a project
under this section shall be a voluntary project initiated
only after—

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

(2) the Secretary determines the proposed
project—
(A) will not result in an unmitigated adverse impact on fulfillment of existing water delivery obligations consistent with historical operations and applicable contracts;

(B) will not result in an unmitigated adverse effect on the environment;

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

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

(ii) to ensure compliance with any applicable international and Tribal treaties and agreements and interstate compacts and agreements;

(D) is in the financial interest of the United States based on a determination that the project advances Federal objectives including environmental enhancement objectives in a Reclamation State; and

(E) protects the public aspects of the eligible facility, including water rights managed for public purposes, such as flood control or fish and wildlife.

(c) ENVIRONMENTAL LAWS.—In participating in a project under this section, the Secretary shall comply with
all applicable Federal environmental laws, including the
National Environmental Policy Act of 1969 (42 U.S.C.
4321 et seq.), and all State environmental laws of the Recl-
amation State in which the project is located involving
the construction, expansion or operation of a water stor-
age project or fish and wildlife protection, provided that
no law or regulation of a State or political subdivision of
a State relieve the Secretary of any Federal requirement
otherwise applicable under this section.

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

(e) DEFINITION OF ELIGIBLE ENTITY.—In this sec-
tion, the term “eligible entity” means any Reclamation
State, any department, agency, or subdivision of a Recl-
amation State, any public agency organized pursuant to
the laws of a Reclamation State, an Indian Tribe, or a
non-profit organization operating in a Reclamation State.

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

(1) are likely to provide public safety benefits;

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

TITLE III—IMPROVED TECHNOLOGY AND DATA

SEC. 301. DETERMINATION OF WATER SUPPLY ALLOCATIONS.

(a) Snowpack Measurement Data.—When determining water supply allocations, the Secretary, acting through the Commissioner of the Bureau of Reclamation, shall incorporate to the greatest extent practicable information from emerging technologies for snowpack measurement such as—

(1) synthetic aperture radar;

(2) laser altimetry; or

(3) any other emerging technologies that can provide more accurate or timely snowpack measurement data as determined by the Secretary.

(b) Coordination.—In carrying out subsection (a), the Secretary may coordinate data use and collection efforts with other Federal agencies and bureaus that currently use or may benefit from the use of emerging technologies for snowpack measurement.

(c) Authorization of Appropriations.—There is authorized to be appropriated to the Secretary $5,000,000 to carry out this section.
(d) REPORT.—Not later than October 1, 2022, the Secretary shall submit to Congress a report summarizing the use of emerging technologies pursuant to this section and describe any benefits derived from the use of such technologies related to the environment and increased water supply reliability.

SEC. 302. STUDY EXAMINING CLIMATE VULNERABILITIES AT FEDERAL DAMS.

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

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

(2) evaluate and list the Bureau of Reclamation dams that are most vulnerable to climate change related safety risks based on an assessment of climate change related impacts on—

(A) the frequency of heavy precipitation events; and

(B) other factors that influence the magnitude and severity of flooding events including
43

snow cover and snowmelt, vegetation, and soil
moisture.

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

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

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