

(i) that is located in a service area of the Bureau of Reclamation; and

(ii) at which is located a federally authorized project of the Bureau of Reclamation.

**(B) Inclusions**

The term “major reclamation river basin” includes—

- (i) the Colorado River;
- (ii) the Columbia River;
- (iii) the Klamath River;
- (iv) the Missouri River;
- (v) the Rio Grande;
- (vi) the Sacramento River;
- (vii) the San Joaquin River; and
- (viii) the Truckee River.

**(13) Non-Federal participant**

The term “non-Federal participant” means—

- (A) a State, regional, or local authority;
- (B) an Indian tribe or tribal organization; or
- (C) any other qualifying entity, such as a water conservation district, water conservancy district, or rural water district or association, or a nongovernmental organization.

**(14) Panel**

The term “panel” means the climate change and water intragovernmental panel established by the Secretary under section 10366(a) of this title.

**(15) Program**

The term “program” means the regional integrated sciences and assessments program—

- (A) established by the Administrator; and
- (B) that is comprised of 8 regional programs that use advances in integrated climate sciences to assist decisionmaking processes.

**(16) Secretary**

**(A) In general**

Except as provided in subparagraph (B), the term “Secretary” means the Secretary of the Interior.

**(B) Exceptions**

The term “Secretary” means—

- (i) in the case of sections 10363, 10364, and 10369 of this title, the Secretary of the Interior (acting through the Commissioner); and
- (ii) in the case of sections 10367 and 10368 of this title, the Secretary of the Interior (acting through the Director).

**(17) Service area**

The term “service area” means any area that encompasses a watershed that contains a federally authorized reclamation project that is located in any State or area described in section 391 of title 43.

(Pub. L. 111-11, title IX, §9502, Mar. 30, 2009, 123 Stat. 1330.)

**§ 10363. Reclamation climate change and water program**

**(a) In general**

The Secretary shall establish a climate change adaptation program—

(1) to coordinate with the Administrator and other appropriate agencies to assess each effect of, and risk resulting from, global climate change with respect to the quantity of water resources located in a service area; and

(2) to ensure, to the maximum extent possible, that strategies are developed at watershed and aquifer system scales to address potential water shortages, conflicts, and other impacts to water users located at, and the environment of, each service area.

**(b) Required elements**

In carrying out the program described in subparagraph (a), the Secretary shall—

(1) coordinate with the United States Geological Survey, the National Oceanic and Atmospheric Administration, the program, and each appropriate State water resource agency, to ensure that the Secretary has access to the best available scientific information with respect to presently observed and projected future impacts of global climate change on water resources;

(2) assess specific risks to the water supply of each major reclamation river basin, including any risk relating to—

- (A) a change in snowpack;
- (B) changes in the timing and quantity of runoff;
- (C) changes in groundwater recharge and discharge; and
- (D) any increase in—
  - (i) the demand for water as a result of increasing temperatures; and
  - (ii) the rate of reservoir evaporation;

(3) with respect to each major reclamation river basin, analyze the extent to which changes in the water supply of the United States will impact—

- (A) the ability of the Secretary to deliver water to the contractors of the Secretary;
- (B) hydroelectric power generation facilities;
- (C) recreation at reclamation facilities;
- (D) fish and wildlife habitat;
- (E) applicable species listed as an endangered, threatened, or candidate species under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.);
- (F) water quality issues (including salinity levels of each major reclamation river basin);
- (G) flow and water dependent ecological resiliency; and
- (H) flood control management;

(4) in consultation with appropriate non-Federal participants, consider and develop appropriate strategies to mitigate each impact of water supply changes analyzed by the Secretary under paragraph (3), including strategies relating to—

- (A) the modification of any reservoir storage or operating guideline in existence as of March 30, 2009;
- (B) the development of new water management, operating, or habitat restoration plans;
- (C) water conservation;
- (D) improved hydrologic models and other decision support systems; and

(E) groundwater and surface water storage needs; and

(5) in consultation with the Director, the Administrator, the Secretary of Agriculture (acting through the Chief of the Natural Resources Conservation Service), and applicable State water resource agencies, develop a monitoring plan to acquire and maintain water resources data—

(A) to strengthen the understanding of water supply trends; and

(B) to assist in each assessment and analysis conducted by the Secretary under paragraphs (2) and (3).

**(c) Reporting**

Not later than 2 years after March 30, 2009, and every 5 years thereafter, the Secretary shall submit to the appropriate committees of Congress a report that describes—

(1) each effect of, and risk resulting from, global climate change with respect to the quantity of water resources located in each major reclamation river basin;

(2) the impact of global climate change with respect to the operations of the Secretary in each major reclamation river basin;

(3) each mitigation and adaptation strategy considered and implemented by the Secretary to address each effect of global climate change described in paragraph (1);

(4) each coordination activity conducted by the Secretary with—

(A) the Director;

(B) the Administrator;

(C) the Secretary of Agriculture (acting through the Chief of the Natural Resources Conservation Service); or

(D) any appropriate State water resource agency; and

(5) the implementation by the Secretary of the monitoring plan developed under subsection (b)(5).

**(d) Feasibility studies**

**(1) Authority of Secretary**

The Secretary, in cooperation with any non-Federal participant, may conduct 1 or more studies to determine the feasibility and impact on ecological resiliency of implementing each mitigation and adaptation strategy described in subsection (c)(3), including the construction of any water supply, water management, environmental, or habitat enhancement water infrastructure that the Secretary determines to be necessary to address the effects of global climate change on water resources located in each major reclamation river basin.

**(2) Cost sharing**

**(A) Federal share**

**(i) In general**

Except as provided in clause (ii), the Federal share of the cost of a study described in paragraph (1) shall not exceed 50 percent of the cost of the study.

**(ii) Exception relating to financial hardship**

The Secretary may increase the Federal share of the cost of a study described in

paragraph (1) to exceed 50 percent of the cost of the study if the Secretary determines that, due to a financial hardship, the non-Federal participant of the study is unable to contribute an amount equal to 50 percent of the cost of the study.

**(B) Non-Federal share**

The non-Federal share of the cost of a study described in paragraph (1) may be provided in the form of any in-kind services that substantially contribute toward the completion of the study, as determined by the Secretary.

**(e) No effect on existing authority**

Nothing in this section amends or otherwise affects any existing authority under reclamation laws that govern the operation of any Federal reclamation project.

**(f) Authorization of appropriations**

There are authorized to be appropriated such sums as are necessary to carry out this section for each of fiscal years 2009 through 2023, to remain available until expended.

(Pub. L. 111–11, title IX, §9503, Mar. 30, 2009, 123 Stat. 1332.)

REFERENCES IN TEXT

The Endangered Species Act of 1973, referred to in subsec. (b)(3)(E), is Pub. L. 93–205, Dec. 28, 1973, 87 Stat. 884, which is classified principally to chapter 35 (§1531 et seq.) of Title 16, Conservation. For complete classification of this Act to the Code, see Short Title note set out under section 1531 of Title 16 and Tables.

**§ 10364. Water management improvement**

**(a) Authorization of grants and cooperative agreements**

**(1) Authority of Secretary**

The Secretary may provide any grant to, or enter into an agreement with, any eligible applicant to assist the eligible applicant in planning, designing, or constructing any improvement—

(A) to conserve water;

(B) to increase water use efficiency;

(C) to facilitate water markets;

(D) to enhance water management, including increasing the use of renewable energy in the management and delivery of water;

(E) to accelerate the adoption and use of advanced water treatment technologies to increase water supply;

(F) to prevent the decline of species that the United States Fish and Wildlife Service and National Marine Fisheries Service have proposed for listing under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) (or candidate species that are being considered by those agencies for such listing but are not yet the subject of a proposed rule);

(G) to accelerate the recovery of threatened species, endangered species, and designated critical habitats that are adversely affected by Federal reclamation projects or are subject to a recovery plan or conservation plan under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) under which the Commissioner of Reclamation has implementation responsibilities; or