

(2) coordinate existing water-related Federal task forces, working groups, and other formal cross-agency initiatives, as appropriate;

(3) prioritize managing the water resources of the United States and promoting resilience of the water-related infrastructure of the United States, including—

(A) increasing water storage, water supply reliability, and drought resiliency;

(B) improving water quality, source water protection, and nutrient management;

(C) promoting restoration activities;

(D) improving water systems, including with respect to drinking water, desalination, water reuse, wastewater, and flood control; and

(E) improving water data management, research, modeling, and forecasting;

(4) improve interagency coordination of data management, access, modeling, and visualization with respect to water-related matters;

(5) promote integrated planning for Federal investments in water-related infrastructure to enhance coordination and protect taxpayer investment; and

(6) support workforce development and efforts to recruit, train, and retain professionals to operate and maintain essential drinking water, wastewater, flood control, hydropower, water delivery, and water storage facilities in the United States.

(f) Cross-agency priority research needs

Not later than 1 year after December 27, 2022, the Water Policy Committee shall develop and submit to Congress a list of research needs that includes needs for cross-agency research and coordination.

(Pub. L. 117–316, §13, Dec. 27, 2022, 136 Stat. 4414.)

§ 9709. National Weather Service hydrologic research fellowship program

(a) Definitions

In this section:

(1) Assistant Administrator

The term “Assistant Administrator” means the Assistant Administrator for Weather Services of the National Oceanic and Atmospheric Administration.

(2) Decision support services

The term “decision support services” means information, including data and refined products, that supports water resources-related decision-making processes.

(3) Institution of higher education

The term “institution of higher education” has the meaning given that term in section 1001 of title 20.

(4) NOAA line offices

The term “NOAA line offices” means the following offices of the National Oceanic and Atmospheric Administration:

(A) The National Ocean Service.

(B) The National Environmental Satellite, Data, and Information Service.

(C) The National Marine Fisheries Service.

(D) The Office of Oceanic and Atmospheric Research.

(E) The Office of Marine and Aviation Operations.

(b) Hydrologic research fellowship program

(1) Establishment

The Administrator shall establish a hydrologic research fellowship program (in this section referred to as the “program”) for qualified individuals.

(2) Qualified individual

For purposes of this section, a qualified individual is an individual who is—

(A) a citizen of the United States; and

(B) enrolled in a research-based graduate program, at an institution of higher education, in a field that advances the research priorities developed by the Assistant Administrator under paragraph (7), such as—

(i) hydrology;

(ii) earth sciences;

(iii) atmospheric sciences;

(iv) computer sciences;

(v) engineering;

(vi) environmental sciences;

(vii) geosciences;

(viii) urban planning; or

(ix) related social sciences.

(3) Award guidelines

Fellowships under the program shall be awarded pursuant to guidelines established by the Assistant Administrator.

(4) Selection preference

In selecting qualified individuals for participation in the program, the Assistant Administrator shall give preference to applicants from historically Black colleges and universities and minority-serving institutions.

(5) Placement

The program shall support the placement of qualified individuals in positions within the executive branch of the Federal Government where such individuals can address and advance the research priorities developed by the Assistant Administrator under paragraph (7).

(6) Fellowship term

A fellowship under the program shall be for a period of up to 2 years.

(7) Fellowship research priorities

The Assistant Administrator, in consultation with representatives from the NOAA line offices, the United States Geological Survey, the Federal Emergency Management Agency, and the Army Corps of Engineers, as appropriate, shall develop and publish priorities for the conduct of research by fellows, which may include the following:

(A) Advance the collaborative development of a flexible community-based water resources modeling system.

(B) Apply artificial intelligence and machine learning capabilities to advance existing hydrologic modeling capabilities.

(C) Support the evolution and integration of hydrologic modeling within an Earth Systems Modeling Framework.

(D) Improve visualizations of hydrologic model outputs.

(E) Advance the state of coupled fresh-water and salt water modeling and forecasting capabilities.

(F) Advance understanding and process representation of water quality parameters.

(G) Advance the assimilation of in-situ and remotely sensed observations and data.

(H) Support the integration of social science to advance decision support services.

(I) Develop methods to study groundwater sustainability and estimate the efficiency of recharge management.

(c) Direct hiring

(1) Authority

During fiscal year 2022 and any fiscal year thereafter, the head of any Federal agency may appoint, without regard to the provisions of subchapter I of chapter 33 of title 5, other than sections 3303 and 3328 of that title, to a position with the Federal agency a recipient of a fellowship under the program who—

(A) earned a degree from a program described in subsection (b)(2)(B);

(B) successfully fulfilled the requirements of the fellowship within the executive branch of the Federal Government; and

(C) meets qualification standards established by the Office of Personnel Management.

(2) Exercise of authority

The direct hire authority provided by this subsection shall be exercised with respect to an individual described in paragraph (1) not later than 2 years after the date on which the individual completed the fellowship under the program.

(Pub. L. 117–316, § 14, Dec. 27, 2022, 136 Stat. 4415.)

§ 9710. Identification and support of consistent, Federal set of forward-looking, long-term meteorological information

(a) Definitions

In this section:

(1) Extreme weather

The term “extreme weather” includes observed or anticipated severe and unseasonable atmospheric conditions, including drought, heavy precipitation, hurricanes, tornadoes and other windstorms (including derechos), large hail, extreme heat, extreme cold, flooding, sustained temperatures or precipitation that deviate substantially from historical averages, and any other weather event that the Administrator determines qualifies as extreme weather.

(2) Long-term

The term “long-term” shall have such meaning as the Director of the National Institute of Standards and Technology, in consultation with the Administrator, considers appropriate for purposes of this section.

(3) Other environmental trends

The term “other environmental trends” means wildfires, coastal flooding, inland flooding, land subsidence, rising sea levels, and any other challenges relating to changes in envi-

ronmental systems over time that the Administrator determines qualify as environmental challenges other than extreme weather.

(b) Identification and support of consistent, Federal set of forward-looking, long-term meteorological information

The Administrator shall identify, and support research that enables, a consistent, Federal set of forward-looking, long-term meteorological information that models future extreme weather events, other environmental trends, projections, and up-to-date observations, including mesoscale information as determined appropriate by the Administrator.

(Pub. L. 117–316, § 15, Dec. 27, 2022, 136 Stat. 4417.)

§ 9711. Gap analysis on availability of snow-related data to assess and predict flood and flood impacts

(a) In general

The Administrator, in consultation with the Department of Agriculture, the Department of the Interior, and the Army Corps of Engineers, shall conduct an analysis of gaps in the availability of snow-related data to assess and predict floods and flood impacts, including data on the following:

- (1) Snow water equivalent.
- (2) Snow depth.
- (3) Snowpack temperature.
- (4) Snow and mixed-phase precipitation.
- (5) Snow melt.
- (6) Rain-snow line.

(b) Report

Not later than 180 days after December 27, 2022, the Administrator shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report on—

- (1) the findings of the gap analysis required by subsection (a); and
- (2) opportunities for additional collaboration among Federal agencies to collect snow-related data to better assess and predict floods and flood impacts.

(Pub. L. 117–316, § 16, Dec. 27, 2022, 136 Stat. 4417.)

§ 9712. Availability to the public of flood-related data

(a) In general

The Administrator shall make flood-related data available to the public on the website of the National Oceanic and Atmospheric Administration.

(b) Cost

The Administrator may make the data under subsection (a) freely accessible or available at a cost that does not exceed the cost of preparing the data.

(Pub. L. 117–316, § 17, Dec. 27, 2022, 136 Stat. 4418.)

CHAPTER 122—TRAVEL AND TOURISM

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9801.	Defined term.
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