appropriate for decisionmaker needs, and rationale for further evolution of this field.

(2) An evaluation of best practices for precipitation estimation that are based on the best-available science, include considerations of non-stationarity, and can be utilized by the user community.

(3) A framework for—

(A) the development of a National Guidance Document for estimating extreme precipitation in future conditions; and

(B) evaluation of the strengths and challenges of the full spectrum of approaches, including for probable maximum precipitation studies.

(4) A description of existing research needs in the field of precipitation estimation in order to modernize current methodologies and consider non-stationarity.

(5) A description of in-situ, airborne, and space-based observation requirements, that could enhance precipitation estimation and development of models, including an examination of the use of geographic information systems and geospatial technology for integration, analysis, and visualization of precipitation data.

(6) A recommended plan for a Federal research and development program, including specifications for costs, timeframes, and responsible agencies for addressing identified research needs.

(7) An analysis of the respective roles in precipitation estimation of various Federal agencies, academia, State, tribal, territorial, and local governments, and other public and private stakeholders.

(8) Recommendations for data management to promote long-term needs such as enabling retrospective analyses and data discoverability, interoperability, and reuse.

(9) Recommendations for how data and services from the entire enterprise can be best leveraged by the Federal Government.

(10) A description of non-Federal precipitation data, its accessibility by the Federal Government, and ways for National Oceanic and Atmospheric Administration to improve or expand such datasets.

(c) Authorization of appropriations

There is authorized $1,500,000 to the National Oceanic and Atmospheric Administration to carry out this study.

(Pub. L. 115–25, title VI, § 601, as added Pub. L. 117–229, div. D, § 2(a), Dec. 16, 2022, 136 Stat. 2313.)

§ 8562. Improving probable maximum precipitation estimates

(a) In general

Not later than 90 days after the date on which the National Academies makes public the report under section 8561 of this title, the Administrator, in consideration of the report recommendations, shall consult with relevant partners, including users of the data, on the development of a plan to—

(1) not later than 6 years after the completion of such report and not less than every 10 years thereafter, update probable maximum precipitation estimates for the United States, such that each update considers non-stationarity;

(2) coordinate with partners to conduct research in the field of extreme precipitation estimation, in accordance with the research needs identified in such report;

(3) make publicly available, in a searchable, interoperable format, all probable maximum precipitation studies developed by the National Oceanic and Atmospheric Administration that the Administrator has the legal right to redistribute and deemed to be at an appropriate state of development on an internet website of the National Oceanic and Atmospheric Administration; and

(4) ensure all probable maximum precipitation estimate data, products, and supporting documentation and metadata developed by the National Oceanic and Atmospheric Administration are preserved, curated, and served by the National Oceanic and Atmospheric Administration, as appropriate.

(b) National guidance document for the development of probable maximum precipitation estimates

The Administrator, in collaboration with Federal agencies, State, territorial, Tribal and local governments, academia, and other partners the Administrator deems appropriate, shall develop a National Guidance Document that—

(1) provides best practices that can be followed by Federal and State regulatory agencies, private meteorological consultants, and other users that perform probable maximum precipitation studies;

(2) considers the recommendations provided in the National Academies study under section 8561 of this title;

(3) facilitates review of probable maximum precipitation studies by regulatory agencies; and

(4) provides confidence in regional and site-specific probable maximum precipitation estimates.

(c) Publication

Not later than 2 years after the date on which the National Academies makes public the report under section 8561 of this title, the Administrator shall make publicly available the National Guidance Document under subsection (b) on an internet website of the National Oceanic and Atmospheric Administration.

(d) Updates

The Administrator shall update the National Guidance Document not less than once every 10 years after the publication of the National Guidance Document under subsection (c) and publish such updates in accordance with such subsection.

(Pub. L. 115–25, title VI, § 602, as added Pub. L. 117–229, div. D, § 2(a), Dec. 16, 2022, 136 Stat. 2314.)

§ 8563. Definitions

In this subchapter:

(1) Administrator

The term ''Administrator'' means the Under Secretary of Commerce for Oceans and Atmos-