

at the request of the non-Federal interest for the study, shall formulate alternatives to maximize the net benefits from the reduction of the comprehensive flood risk within the geographic scope of the study from the isolated and compound effects of—

- (1) a riverine discharge of any magnitude or frequency;
- (2) inundation, wave attack, and erosion coinciding with a hurricane or coastal storm;
- (3) flooding associated with tidally influenced portions of rivers, bays, and estuaries that are hydrologically connected to the coastal water body;
- (4) a rainfall event of any magnitude or frequency;
- (5) a tide of any magnitude or frequency;
- (6) seasonal variation in water levels;
- (7) groundwater emergence;
- (8) sea level rise;
- (9) subsidence; or
- (10) any other driver of flood risk affecting the area within the geographic scope of the study.

(b) Water supply, water conservation, and drought risk reduction

In carrying out a feasibility study for any purpose, the Secretary, at the request of the non-Federal interest for the study, shall formulate alternatives—

- (1) to maximize combined net benefits for the primary purpose of the study and for the purposes of water supply or water conservation (including the use of water supply conservation measures described in section 1116 of the Water Resources Development Act of 2016 (130 Stat. 1639)); or
- (2) to include 1 or more measures for the purposes of water supply or water conservation if the Secretary determines that such measures may reduce potential adverse impacts of extreme weather events, including drought, on water resources within the geographic scope of the study.

(c) Cost sharing

All costs to carry out a feasibility study in accordance with this section shall be shared in accordance with the cost share requirements otherwise applicable to the study.

(Pub. L. 117–263, div. H, title LXXXI, § 8106, Dec. 23, 2022, 136 Stat. 3699.)

Editorial Notes

REFERENCES IN TEXT

Section 1116 of the Water Resources Development Act of 2016, referred to in subsec. (b)(1), is section 1116 of Pub. L. 114–322, title I, Dec. 16, 2016, 130 Stat. 1639, which is not classified to the Code.

CODIFICATION

Section was enacted as part of the Water Resources Development Act of 2022, and also as part of the James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, and not as part of the Water Resources Development Act of 1986 which comprises this chapter.

Statutory Notes and Related Subsidiaries

“SECRETARY” DEFINED

Secretary means the Secretary of the Army, see section 8002 of Pub. L. 117–263, set out as a note under section 2201 of this title.

§ 2282h. Economic, hydraulic, and hydrologic modeling

(a) Model development

The Secretary, in collaboration with other Federal and State agencies, National Laboratories, and nonprofit research institutions (including institutions of higher education and centers and laboratories focused on economics or water resources), shall develop, update, and maintain economic, hydraulic, and hydrologic models, including models for compound flooding, for use in the planning, design formulation, modification, and operation of water resources development projects and water resources planning.

(b) Coordination and use of models and data

In carrying out subsection (a), to the extent practicable, the Secretary shall—

- (1) work with the non-Federal interest for a water resources development project to identify existing relevant economic, hydraulic, and hydrologic models and data;
- (2) utilize, where appropriate, economic, hydraulic, and hydrologic models and data provided to the Secretary by the agencies, laboratories, and institutions described in subsection (a); and
- (3) upon written request by a non-Federal interest for a project, provide to the non-Federal interest draft or working economic, hydraulic, and hydrologic models, and any data generated by such models with respect to the project, not later than 30 days after receiving such request; and

- (4) in accordance with section 2342 of this title, make final economic, hydraulic, and hydrologic models, and any data generated by such models, available to the public, as quickly as practicable, but not later than 30 days after receiving a written request for such models or data.

(c) Limitation

Nothing in this section may be construed to compel or authorize the disclosure of data or other information determined by the Secretary to be confidential information, privileged information, law enforcement information, national security information, infrastructure security information, personal information, or information the disclosure of which is otherwise prohibited by law.

(d) Model outputs

To the extent practicable and appropriate, the Secretary shall incorporate data generated by models developed under this section into the formulation of feasibility studies for, and the operation of, water resources development projects.

(e) Funding

The Secretary is authorized, to the extent and in the amounts provided in advance in appropriations Acts, to transfer to other Federal and State agencies, National Laboratories, and nonprofit research institutions, including institutions of higher education, such funds as may be necessary to carry out subsection (a) from amounts available to the Secretary.

(f) In-kind contribution credit

A partnership agreement entered into under section 1962d–5b of title 42 may provide, at the

request of the non-Federal interest for the applicable project, that the Secretary credit toward the non-Federal share of the cost of the project the value of economic, hydraulic, and hydrologic models required for the project that are developed by the non-Federal interest in accordance with any policies and guidelines applicable to the relevant partnership agreement pursuant to such section.

(g) Review

The Secretary shall review economic, hydraulic, and hydrologic models developed under this section in the same manner as any such models developed under any other authority of the Secretary.

(h) Definitions

In this section:

(1) Compound flooding

The term “compound flooding” means a flooding event in which two or more flood drivers, such as coastal storm surge-driven flooding and inland rainfall-driven flooding, occur simultaneously or in close succession and the potential adverse effects of the combined flood drivers may be greater than that of the individual flood driver components.

(2) Economic

The term “economic”, as used in reference to models, means relating to the evaluation of benefits and cost attributable to a project for an economic justification under section 1962-2 of title 42.

(Pub. L. 118-272, div. A, title I, § 1131, Jan. 4, 2025, 138 Stat. 3020.)

Editorial Notes

CODIFICATION

Section was enacted as part of the Water Resources Development Act of 2024, and also as part of the Thomas R. Carper Water Resources Development Act of 2024, and not as part of the Water Resources Development Act of 1986 which comprises this chapter.

Statutory Notes and Related Subsidiaries

“SECRETARY” DEFINED

Secretary means the Secretary of the Army, see section 1002 of div. A of Pub. L. 118-272, set out as a note under section 2201 of this title.

§ 2283. Fish and wildlife mitigation

(a) Steps to be taken prior to or concurrently with construction

(1) In the case of any water resources project which is authorized to be constructed by the Secretary before, on, or after November 17, 1986, construction of which has not commenced as of November 17, 1986, and which necessitates the mitigation of fish and wildlife losses, including the acquisition of lands or interests in lands to mitigate losses to fish and wildlife, as a result of such project, such mitigation, including acquisition of the lands or interests—

(A) shall be undertaken or acquired before any construction of the project (other than such acquisition) commences, or

(B) shall be undertaken or acquired concurrently with lands and interests in lands for

project purposes (other than mitigation of fish and wildlife losses),

whichever the Secretary determines is appropriate, except that any physical construction required for the purposes of mitigation may be undertaken concurrently with the physical construction of such project.

(2) For the purposes of this subsection, any project authorized before November 17, 1986, on which more than 50 percent of the land needed for the project, exclusive of mitigation lands, has been acquired shall be deemed to have commenced construction under this subsection.

(b) Acquisition of lands or interests in lands for mitigation

(1) After consultation with appropriate Federal and non-Federal agencies, the Secretary is authorized to mitigate damages to fish and wildlife resulting from any water resources project under his jurisdiction, whether completed, under construction, or to be constructed. Such mitigation may include the acquisition of lands, or interests therein, except that—

(A) acquisition under this paragraph shall not be by condemnation in the case of projects completed as of November 17, 1986, or on which at least 10 percent of the physical construction on the project has been completed as of November 17, 1986; and

(B) acquisition of water, or interests therein, under this paragraph, shall not be by condemnation.

The Secretary, shall, under the terms of this paragraph, obligate no more than \$30,000,000 in any fiscal year. With respect to any water resources project, the authority under this subsection shall not apply to measures that cost more than \$7,500,000 or 10 percent of the cost of the project, whichever is greater.

(2) Whenever, after his review, the Secretary determines that such mitigation features under this subsection are likely to require condemnation under subparagraph (A) or (B) of paragraph (1) of this subsection, the Secretary shall transmit to Congress a report on such proposed modification, together with his recommendations.

(c) Allocation of mitigation costs

Costs incurred after November 17, 1986, including lands, easements, rights-of-way, and relocations, for implementation and operation, maintenance, and rehabilitation to mitigate damages to fish and wildlife shall be allocated among authorized project purposes in accordance with applicable cost allocation procedures, and shall be subject to cost sharing or reimbursement to the same extent as such other project costs are shared or reimbursed, except that when such costs are covered by contracts entered into prior to November 17, 1986, such costs shall not be recovered without the consent of the non-Federal interests or until such contracts are complied with or renegotiated.

(d) Mitigation plans as part of project proposals

(1) In general

After November 17, 1986, the Secretary shall not submit any proposal for the authorization of any water resources project to Congress in any report, and shall not select a project al-