### 119TH CONGRESS 1ST SESSION

# S. 2586

To require the Administrator of the National Oceanic and Atmospheric Administration to establish an assessment program for commercial-scale offshore aquaculture through demonstration projects, to establish Aquaculture Centers of Excellence, to support aquaculture workforce development and working waterfronts, and for other purposes.

### IN THE SENATE OF THE UNITED STATES

July 31, 2025

Mr. Wicker (for himself and Mr. Schatz) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

# A BILL

To require the Administrator of the National Oceanic and Atmospheric Administration to establish an assessment program for commercial-scale offshore aquaculture through demonstration projects, to establish Aquaculture Centers of Excellence, to support aquaculture workforce development and working waterfronts, and for other purposes.

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

## 1 SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

- 2 (a) SHORT TITLE.—This Act may be cited as the
- 3 "Marine Aquaculture Research for America Act of 2025"
- 4 or the "MARA Act of 2025".
- 5 (b) Table of Contents for
- 6 this Act is as follows:
  - Sec. 1. Short title; table of contents.
  - Sec. 2. Purposes.
  - Sec. 3. Definitions.

#### TITLE I—OFFICE OF AQUACULTURE

Sec. 101. Office of Aquaculture.

#### TITLE II—COMMERCIAL-SCALE DEMONSTRATION PROJECTS

- Sec. 201. Assessment program for offshore aquaculture.
- Sec. 202. Permits for demonstration projects for offshore aquaculture facilities.
- Sec. 203. Coordination of permit reviews for demonstration projects.
- Sec. 204. Reporting by assessment program participants.
- Sec. 205. Rule of construction; savings provisions.

# TITLE III—WORKFORCE DEVELOPMENT, FINANCING, AND OTHER SUPPORT

- Sec. 301. General support for industry.
- Sec. 302. Aquaculture Centers of Excellence.
- Sec. 303. Working waterfronts preservation grant program.
- Sec. 304. Outreach on sustainable offshore aquaculture.

#### TITLE IV—STUDIES AND REPORTS

- Sec. 401. Study on offshore aquaculture by Ocean Studies Board of the National Academies of Sciences, Engineering, and Medicine.
- Sec. 402. Report on offshore aquaculture by Government Accountability Office.

#### 7 SEC. 2. PURPOSES.

- 8 The purposes of this Act are—
- 9 (1) to authorize the National Oceanic and At-
- 10 mospheric Administration to establish and study
- 11 commercial-scale demonstration projects to answer
- scientific questions needed to safely and sustainably
- regulate offshore aquaculture in the United States;

	v
1	(2) to commission a study and report to assess
2	the environmental and regulatory viability of a
3	United States offshore aquaculture industry;
4	(3) to support aquaculture workforce develop-
5	ment and working waterfronts by creating new jobs
6	and to support existing jobs and businesses within
7	the seafood industry of the United States, including
8	jobs and businesses for traditional participants in
9	the fishing industry;
10	(4) to establish Aquaculture Centers of Excel-
11	lence to meet the needs of the growing domestic sus-
12	tainable aquaculture industry; and
13	(5) to reduce the United States seafood trade
14	deficit by expanding the domestic supply of seafood
15	through the production of sustainable offshore aqua-
16	culture.
17	SEC. 3. DEFINITIONS.
18	In this Act:
19	(1) Administration.—The term "Administra-
20	tion" means the National Oceanic and Atmospheric
21	Administration.
22	(2) Administrator.—The term "Adminis-

trator" means the Administrator of the Administration.

1	(3) Appropriate committees of con-
2	GRESS.—The term "appropriate committees of Con-
3	gress" means—
4	(A) the Committee on Commerce, Science,
5	and Transportation, the Committee on Environ-
6	ment and Public Works, and the Committee on
7	Agriculture, Nutrition, and Forestry of the Sen-
8	ate; and
9	(B) the Committee on Natural Resources,
10	the Committee on Agriculture, and the Com-
11	mittee on Transportation and Infrastructure of
12	the House of Representatives.
13	(4) AQUACULTURE.—The term "aqua-
14	culture"—
15	(A) means any activity involved in the
16	propagation, rearing, or attempted propagation
17	or rearing, of cultured species, including the
18	capture and rearing of broodstock; and
19	(B) does not include the practice of—
20	(i) capturing juvenile finfish to rear to
21	maturity in an aquaculture facility for sub-
22	sequent commercial sale; or
23	(ii) the practice of rearing and releas-
24	ing cultured species for the purpose of en-
25	hancing wild populations.

1	(5) AQUACULTURE STAKEHOLDER.—The term
2	"aquaculture stakeholder" means—
3	(A) an owner or operator of an offshore
4	aquaculture facility;
5	(B) a Regional Fishery Management Coun-
6	cil established under section 302(a) of the Mag-
7	nuson-Stevens Fishery Conservation and Man-
8	agement Act (16 U.S.C. 1852(a));
9	(C) an interstate fisheries commission;
10	(D) a conservation organization;
11	(E) a fisheries association;
12	(F) a State or county government;
13	(G) an Indian Tribe;
14	(H) a Native Hawaiian organization;
15	(I) a Native Hawaiian community;
16	(J) a Tribal or Indigenous community;
17	(K) a Federal or State agency with inter-
18	ests in aquaculture; or
19	(L) any other interested party.
20	(6) Coastal state.—The term "coastal
21	State" has the meaning given the term "coastal
22	state" in section 304(4) of the Coastal Zone Man-
23	agement Act of 1972 (16 U.S.C. 1453(4)).
24	(7) CULTURED SPECIES.—The term "cultured
25	species"—

1	(A) means any species propagated and
2	reared for marine aquaculture;
3	(B) includes larval marine shellfish species
4	that self-recruit in the offshore environment;
5	and
6	(C) excludes any member of the class Aves,
7	Reptilia, or Mammalia.
8	(8) ESCAPE.—The term "escape" means the es-
9	cape of juvenile- or adult-farmed organisms, viable
10	gametes, or fertilized eggs spawned by farmed orga-
11	nisms from offshore aquaculture facilities.
12	(9) Exclusive economic zone.—
13	(A) In general.—Unless otherwise speci-
14	fied by the President in the public interest in
15	a writing published in the Federal Register, the
16	term "exclusive economic zone" means a zone,
17	the outer boundary of which—
18	(i) except as provided by clause (ii), is
19	200 nautical miles from the baseline from
20	which the breadth of the territorial sea is
21	measured; or
22	(ii)(I) if an applicable maritime
23	boundary treaty is in force or is being pro-
24	visionally applied by the United States, is
25	established by that treaty; or

1	(II) in the absence of such a treaty
2	and in a case in which the distance be-
3	tween the United States and another coun-
4	try is less than 400 nautical miles, is a line
5	equidistant between the United States and
6	the other country.
7	(B) INNER BOUNDARY.—Without affecting
8	any Presidential proclamation with regard to
9	the establishment of the United States terri-
10	torial sea or exclusive economic zone, the inner
11	boundary of the exclusive economic zone is—
12	(i) in the case of the coastal States, a
13	line coterminous with the seaward bound-
14	ary of each such State, as described in sec-
15	tion 4 of the Submerged Lands Act (43
16	U.S.C. 1312);
17	(ii) in the case of the Commonwealth
18	of Puerto Rico, a line 9 nautical miles
19	from the coastline of the Commonwealth of
20	Puerto Rico;
21	(iii) in the case of American Samoa,
22	the United States Virgin Islands, or Guam,
23	a line 3 geographic miles from the coast-
24	lines of American Samoa, the United

1	States Virgin Islands, or Guam, respec-
2	tively; or
3	(iv) in the case of the Commonwealth
4	of the Northern Mariana Islands—
5	(I) the coastline of the Common-
6	wealth of the Northern Mariana Is-
7	lands, until the Commonwealth of the
8	Northern Mariana Islands is granted
9	authority by the United States to reg-
10	ulate all fishing to a line seaward of
11	its coastline; and
12	(II) upon the United States
13	grant of such authority, the line es-
14	tablished by such grant of authority.
15	(C) Rule of Construction.—Nothing in
16	this paragraph may be construed to diminish
17	the authority of the Department of Defense, the
18	Department of the Interior, or any other Fed-
19	eral agency.
20	(10) FISHERY STAKEHOLDERS.—The term
21	"fishery stakeholders" means—
22	(A) subsistence fishery participants and
23	their dependents;
24	(B) fishing vessel crews;

1	(C) fish processor and distribution work-
2	ers;
3	(D) recreational fisheries;
4	(E) Tribal fisheries; and
5	(F) territorial fishing communities, includ-
6	ing such communities in American Samoa,
7	Guam, the Commonwealth of the Northern
8	Mariana Islands, Puerto Rico, and the United
9	States Virgin Islands.
10	(11) Indian Tribe.—The term "Indian Tribe"
11	has the meaning given that term in section 4 of the
12	Indian Self-Determination and Education Assistance
13	Act (25 U.S.C. 5304).
14	(12) Institution of Higher Education.—
15	The term "institution of higher education" has the
16	meaning given that term in section 201 of the High-
17	er Education Act of 1965 (20 U.S.C. 1001).
18	(13) NATIVE HAWAIIAN COMMUNITY.—The
19	term "Native Hawaiian community" means the dis-
20	tinct Native Hawaiian indigenous political commu-
21	nity that Congress, exercising its plenary power over
22	Native American affairs, has recognized and with
23	which Congress has implemented a special political
24	and trust relationship.

1	(14) NATIVE HAWAIIAN ORGANIZATION.—The
2	term "Native Hawaiian organization" has the mean-
3	ing given that term in section 6207 of the Elemen-
4	tary and Secondary Education Act of 1965 (20
5	U.S.C. 7517) and includes the Department of Ha-
6	waiian Home Lands and the Office of Hawaiian Af-
7	fairs.
8	(15) NATIONAL SEA GRANT COLLEGE PRO-
9	GRAM.—The term "national sea grant college pro-
10	gram" means the program maintained under section
11	204(a) of the National Sea Grant College Program
12	Act (33 U.S.C. 1123(a)).
13	(16) Offshore Aquaculture.—The term
14	"offshore aquaculture" means aquaculture con-
15	ducted in the exclusive economic zone.
16	(17) Offshore aquaculture facility.—The
17	term "offshore aquaculture facility" means—
18	(A) an installation or structure used, in
19	whole or in part, for offshore aquaculture; or
20	(B) an area of the seabed, water column,
21	or the sediment used for offshore aquaculture.
22	(18) State.—The term "State" means each of
23	the several States, the District of Columbia, and
24	each commonwealth, territory, or possession of the

25

United States.

1	(19) Tribal fishery.—The term "Tribal fish-
2	ery" means a fishery that is—
3	(A) owned, operated, or managed by a
4	Tribal or Indigenous community; or
5	(B) located in an area—
6	(i) that is subject to the jurisdiction
7	of an Indian Tribe; and
8	(ii) for which the Indian Tribe has
9	sovereign authority over fishing activity in
10	the area.
11	(20) Tribal Land.—The term "Tribal land"
12	means land that is subject to the jurisdiction of an
13	Indian Tribe.
14	(21) Tribal or indigenous community.—
15	The term "Tribal or Indigenous community" means
16	a population of people who are—
17	(A) enrolled members of an Indian Tribe;
18	(B) members of an Alaska Native or Na-
19	tive Hawaiian community or organization; or
20	(C) members of any other community of
21	Indigenous people located in a State.

# TITLE I—OFFICE OF 1 **AQUACULTURE** 2 3 SEC. 101. OFFICE OF AQUACULTURE. (a) Establishment.—There is established within 4 5 the headquarters of the National Marine Fisheries Service of the Administration the Office of Aquaculture (in this 6 7 section referred to as the "Office"). 8 (b) Resources.—The Administrator shall ensure the Office is provided with sufficient resources to carry out the duties of the Office under subsection (d). 11 (c) Representation at Regional Fisheries Of-12 FICES.— (1) In General.—The Administrator shall pro-13 14 vide for representation of the Office in each of the 15 regional fisheries offices of the Administration. 16 MINIMUM PRESENCE.—In carrying out 17 paragraph (1), the Administrator— 18 (A) shall provide for the placement of at 19 least one regional aquaculture coordinator from 20 the Office in each regional fisheries office; 21 (B) shall otherwise ensure that the rep-22 resentation of the Office at a regional fisheries 23 office is, at a minimum, sufficient to permit the 24 Office to fulfill the duties of the Office under subsection (d); and 25

1	(C) may increase that representation to the
2	extent warranted by the activity and interest of
3	aquaculture stakeholders in the region.
4	(d) Duties.—
5	(1) IN GENERAL.—The Office shall—
6	(A) coordinate the implementation of this
7	Act, including administration of—
8	(i) the aquaculture research program
9	established under subsection (e);
10	(ii) the offshore aquaculture assess-
11	ment program established under section
12	201; and
13	(iii) the issuance of permits under sec-
14	tion 202;
15	(B) coordinate regulatory, scientific, out-
16	reach, and international issues related to aqua-
17	culture within the Administration;
18	(C) collaborate with and leverage existing
19	efforts by the national sea grant college pro-
20	gram—
21	(i) to conduct outreach, education, ex-
22	tension services, and training efforts for
23	aquaculture and offshore aquaculture; and
24	(ii) to engage with aquaculture stake-
25	holders and, from time to time, convene

1	conferences for aquaculture stakeholders to
2	exchange information and ideas;
3	(D) maintain aquaculture capacity in the
4	regions covered by the regional fisheries offices
5	of the Administration;
6	(E) develop recommendations for perform-
7	ance standards for offshore aquaculture oper-
8	ations that, at a minimum—
9	(i) encourage development of offshore
10	aquaculture in a manner that complies
11	with environmental law;
12	(ii) are based on the best scientific in-
13	formation available;
14	(iii) take into account traditional
15	knowledge of Tribal and Indigenous com-
16	munities as appropriate to the region;
17	(iv) are adaptive to offshore aqua-
18	culture developments, such as updates in
19	technology and changes in environmental
20	conditions; and
21	(v) prefer species that are native or
22	historically naturalized to the region; and
23	(F) prioritize the health of cultured spe-
24	cies.
25	(2) AGREEMENTS WITH STATES.—

1	(A) In General.—Upon request of the
2	Governor of a coastal State, the Office shall
3	enter into an agreement with the State to allow
4	the State, and aquaculture stakeholders in the
5	State as appropriate, to participate in the ac-
6	tivities authorized under sections 201 and 203
7	and titles III and IV, as though—
8	(i) the aquaculture conducted in the
9	State's coastal waters were offshore aqua-
10	culture; and
11	(ii) facilities for aquaculture in the
12	State's coastal waters were offshore aqua-
13	culture facilities.
14	(B) Rule of Construction.—Nothing in
15	this paragraph or in any agreement entered
16	into under this paragraph shall be construed to
17	affect the authority of the Administrator to
18	issue permits for or regulate aquaculture in
19	State waters, except as expressly provided in
20	such an agreement.
21	(e) AQUACULTURE RESEARCH PROGRAM AND DU-
22	TIES.—
23	(1) In general.—The Administrator shall es-
24	tablish, and provide resources (in addition to the re-
25	sources required under subsection (b)) for, an aqua-

1	culture research program that draws upon the sci-
2	entific capacity of programs of the Administration,
3	such as the Fisheries Science Centers, the national
4	sea grant college program, and the National Centers
5	for Coastal Ocean Science, to support the efforts of
6	the Office to implement this Act.
7	(2) Functions.—As part of the aquaculture
8	research program established under paragraph (1),
9	the Office shall—
10	(A) ensure that commercial-scale offshore
11	aquaculture demonstration projects for which
12	permits are issued under section 202 are sci-
13	entifically monitored to support the implemen-
14	tation of this Act;
15	(B) evaluate data;
16	(C) conduct additional research to support
17	the development of sustainable offshore aqua-
18	culture;
19	(D) administer support for industry under
20	section 301;
21	(E) administer the Aquaculture Centers of
22	Excellence under section 302;
23	(F) administer the contract to conduct the
24	study described in section 401; and

1	(G) coordinate the engagement of the Ad-
2	ministration with the Comptroller General of
3	the United States as the Comptroller General
4	prepares the report required by section 402.
5	(f) Budget Request.—The Administrator shall in-
6	clude, in the budget justification materials submitted to
7	Congress in support of the budget of the President for
8	a fiscal year pursuant to section 1105 of title 31, United
9	States Code, a request for funding for the Office as a sep-
10	arate line item with the National Marine Fisheries Service.
11	TITLE II—COMMERCIAL-SCALE
12	<b>DEMONSTRATION PROJECTS</b>
13	SEC. 201. ASSESSMENT PROGRAM FOR OFFSHORE AQUA-
13 14	SEC. 201. ASSESSMENT PROGRAM FOR OFFSHORE AQUA- CULTURE.
14	CULTURE.
14 15	CULTURE.  (a) Establishment of Program.—Not later than
14 15 16 17	CULTURE.  (a) ESTABLISHMENT OF PROGRAM.—Not later than 180 days after the date of the enactment of this Act, the
14 15 16 17	CULTURE.  (a) ESTABLISHMENT OF PROGRAM.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall establish an assessment program (in
14 15 16 17 18	CULTURE.  (a) ESTABLISHMENT OF PROGRAM.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall establish an assessment program (in this section referred to as the "assessment program") with
14 15 16 17 18	CULTURE.  (a) ESTABLISHMENT OF PROGRAM.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall establish an assessment program (in this section referred to as the "assessment program") with the objective of assessing the viability of offshore aqua-
14 15 16 17 18 19 20	CULTURE.  (a) ESTABLISHMENT OF PROGRAM.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall establish an assessment program (in this section referred to as the "assessment program") with the objective of assessing the viability of offshore aquaculture—
14 15 16 17 18 19 20 21	CULTURE.  (a) ESTABLISHMENT OF PROGRAM.—Not later than 180 days after the date of the enactment of this Act, the Administrator shall establish an assessment program (in this section referred to as the "assessment program") with the objective of assessing the viability of offshore aquaculture—  (1) in light of changing circumstances and ad-

1	veloped from demonstration projects for which per-
2	mits are issued under section 202.
3	(b) Elements.—At a minimum, the assessment pro-
4	gram shall examine the following in order to determine
5	the viability of offshore aquaculture:
6	(1) The ability of different commercial-scale fa-
7	cility designs and operational methods—
8	(A) to survive various atmospheric and
9	ocean conditions to the extent possible, includ-
10	ing high wind speeds or high-energy ocean con-
11	ditions associated with severe weather, or tidal
12	or tsunami activity, without—
13	(i) escapes;
14	(ii) loss of or damage to infrastruc-
15	ture; or
16	(iii) wildlife entanglement resulting
17	from loss or damaged infrastructure;
18	(B) to prevent adverse wildlife impacts to
19	the extent possible, including entanglements of
20	large whales, sea turtles, and other species pro-
21	tected under—
22	(i) the Endangered Species Act of
23	1973 (16 U.S.C. 1531 et seq.); and
24	(ii) the Marine Mammal Protection
25	Act of 1972 (16 U.S.C. 1361 et sea.):

1	(C) to prevent adverse impacts on the ma-
2	rine environment to the extent possible, includ-
3	ing impacts to habitat, water chemistry, and
4	wildlife; and
5	(D) to prevent adverse impacts on naviga-
6	tion and safety, to the extent possible, to exist-
7	ing ocean users due to offshore aquaculture fa-
8	cilities, including requirements for operations
9	navigation, and transit associated with such fa-
10	cilities.
11	(2) The ability of different technologies to pro-
12	vide reliable and timely data on offshore aquaculture
13	facilities, including visual data and other relevant
14	data types, on a regular basis to enable the Adminis-
15	trator to monitor—
16	(A) the compliance of demonstration
17	projects for which permits are issued under sec-
18	tion 202 with the requirements under sub-
19	section (b) of such section;
20	(B) impacts on the marine environment
21	and
22	(C) interference with existing uses of the
23	water bodies in which demonstration projects
24	for which permits are issued under section 202
25	are located.

1	(3) The relative risks, benefits, and costs of
2	various types of offshore aquaculture, including dif-
3	ferent species of finfish in different geographies and
4	under varying climactic and ecological conditions.
5	(c) Report Required.—Not later than 2 years
6	after the date on which the Administrator establishes the
7	assessment program, the Administrator shall publish,
8	make available to the public, and submit to the National
9	Academy of Sciences and the Comptroller General of the
10	United States, a report that includes the following:
11	(1) A description of each demonstration project
12	for which a permit is issued under section 202, in-
13	cluding documentation supporting the issuance of
14	the permit.
15	(2) A summary of the information submitted to
16	the Administrator for each such demonstration
17	project.
18	(3) A description of the progress made toward
19	meeting the objective described in subsection (a).
20	SEC. 202. PERMITS FOR DEMONSTRATION PROJECTS FOR
21	OFFSHORE AQUACULTURE FACILITIES.
22	(a) Issuance of Permits.—After the Administrator
23	establishes the assessment program under section 201, the
24	Administrator shall issue permits for demonstration

1	projects for proposed offshore aquaculture facilities in fur-
2	therance of the assessment program.
3	(b) Eligibility Requirements.—To be eligible for
4	the issuance of a permit under subsection (a), a dem-
5	onstration project is required to—
6	(1) advance the objective described in section
7	201(a);
8	(2) cultivate only native or historically natural-
9	ized species that pose a minimal threat of harm to
10	wildlife and the ecosystem in which the project is lo-
11	cated;
12	(3) incorporate design and operational practices
13	that minimize the risk of escape, wildlife entangle-
14	ment, and adverse pollution impacts;
15	(4) develop an escape response and infrastruc-
16	ture loss or damage plan that minimizes the impact
17	of any escapes or infrastructure loss or damage on
18	the marine environment and on other uses of the
19	water body in which the project is located;
20	(5) comply with all applicable requirements
21	of—
22	(A) the Federal Water Pollution Control
23	Act (33 U.S.C. 1251 et seq.) (commonly re-
24	ferred to as the "Clean Water Act");

1	(B) the Endangered Species Act of 1973
2	(16 U.S.C. 1531 et seq.);
3	(C) the Marine Mammal Protection Act of
4	1972 (16 U.S.C. 1361 et seq.); and
5	(D) the National Environmental Policy Act
6	of 1969 (42 U.S.C. 4321 et seq.);
7	(6) maximize compatibility with, and prevent or
8	minimize displacement of, existing uses and users of
9	the marine environment in the near vicinity of where
10	the project is located;
11	(7) conform to best practices to avoid or mini-
12	mize the use of antibiotics and other pharma-
13	ceuticals and minimize the release of such pharma-
14	ceuticals into the environment; and
15	(8) be designed and managed in partnership
16	with—
17	(A) a land-grant college or university (as
18	defined in section 1404 of the National Agricul-
19	tural Research, Extension, and Teaching Policy
20	Act of 1977 (7 U.S.C. 3103));
21	(B) a historically black college or univer-
22	sity (as defined by the term "part B institu-
23	tion" in section 322 of the Higher Education
24	Act of 1965 (20 U.S.C. 1061));

1	(C) a 1994 Institution (as defined in sec-
2	tion 532 of the Equity in Educational Land-
3	Grant Status Act of 1994 (Public Law 103–
4	382; 7 U.S.C. 301 note)); or
5	(D) a sea grant college (as defined in sec-
6	tion 203 of the National Sea Grant College
7	Program Act (33 U.S.C. 1122)).
8	(c) AUTHORIZED ACTIVITIES.—A person that holds
9	a permit for a demonstration project issued under sub-
10	section (a) may conduct offshore aquaculture consistent
11	with—
12	(1) this Act, including regulations prescribed to
13	carry out this Act; and
14	(2) other applicable provisions of law, including
15	regulations.
16	(d) APPLICATIONS.—A person seeking a permit for
17	a demonstration project shall submit to the Administrator
18	an application that specifies—
19	(1) the proposed location of the offshore aqua-
20	culture facility and the location of on-shore facilities
21	used for propagation or rearing of cultured species,
22	such as hatcheries or research operations;
23	(2) the type of aquaculture operations that will
24	be conducted at all facilities described in paragraph
25	(1);

1	(3) the cultured species, or a specified range of
2	species, to be propagated or reared, or both, at the
3	offshore aquaculture facility;
4	(4)(A) the source of eggs, larvae, or juvenile
5	cultured species that will be used in offshore aqua-
6	culture operations;
7	(B) an analysis of the likely ecosystem impacts
8	of such operations, such as the spread of pathogens
9	and
10	(C) the information upon which the analysis
11	was based;
12	(5) plans to respond to—
13	(A) a natural disaster;
14	(B) an escape;
15	(C) disease;
16	(D) loss or damage to infrastructure; and
17	(E) other circumstances designated by the
18	Administrator; and
19	(6) such other design, construction, and oper-
20	ational information as the Administrator may re-
21	quire to ensure the integrity of the operations and
22	contingency planning.
23	(e) Notice, Public Comment, and Objections.—
24	(1) In General.—The Administrator shall—

1	(A) not later than 90 days after receiving
2	an application under this section, publish in the
3	Federal Register a notice summarizing the ap-
4	plication; and
5	(B) invite and consider public comments,
6	and formal objections from any Governor or
7	Tribal leader of a specially affected coastal ju-
8	risdiction, on applications for permits under
9	this section.
10	(2) Specially affected coastal jurisdic-
11	TION.—In this subsection, the term "specially af-
12	fected coastal jurisdiction" means any coastal State
13	or Indian Tribe—
14	(A) the land, Tribal land, or waters of
15	which—
16	(i) are adjacent to the Federal waters
17	in which the project will be conducted; and
18	(ii) are used, or are scheduled to be
19	used, as a support base for the project;
20	and
21	(B) for which there is a reasonable prob-
22	ability of significant effect on uses of land,
23	Tribal land, or water from the project.
24	(f) Priority Consideration.—In considering ap-
25	plications for permits for demonstration projects under

- 1 this section, the Administrator shall give priority consider-
- 2 ation to applications for demonstration projects—
- 3 (1) owned or operated by applicants who can
- 4 demonstrate that the demonstration project will di-
- 5 rectly benefit individuals who are already partici-
- 6 pating in the agricultural, wild-caught fishery, or
- 7 aquaculture industries who have been negatively im-
- 8 pacted by the COVID-19 pandemic, natural disas-
- 9 ters, or major disasters declared under section 401
- of the Robert T. Stafford Disaster Relief and Emer-
- gency Assistance Act (42 U.S.C. 5170); or
- 12 (2) sited within an Aquaculture Opportunity
- 13 Area identified by the Secretary of Commerce in ac-
- 14 cordance with section 7 of Executive Order 13921
- 15 (16 U.S.C. 1801 note; relating to promoting Amer-
- ican seafood competitiveness and economic growth).
- 17 (g) SOCIOECONOMIC DATA.—In considering applica-
- 18 tions for permits for demonstration projects under this
- 19 section, and to support the study described in section 401,
- 20 the report required by section 402, and the assessment
- 21 program established under section 201, the Administrator
- 22 shall collect socioeconomic data associated with the owner
- 23 or operator of, and communities employed or otherwise af-
- 24 fected by, each demonstration project.

1	(h) Decisions With Respect to Issuance, De-
2	FERRAL, OR DENIAL.—
3	(1) In general.—Not later than 90 days after
4	the conclusion of the period for public comments
5	under subsection (e) with respect to an application
6	for a permit for a demonstration project under this
7	section, the Administrator shall—
8	(A) issue the permit, if the Administrator
9	determines the application complies with the re-
10	quirements of this Act, the National Environ-
11	mental Policy Act of 1969 (42 U.S.C. 4321 et
12	seq.), and other applicable law;
13	(B) if the Administrator determines that
14	the application does not comply with the re-
15	quirements described in subparagraph (A) and
16	can be modified to comply with those require-
17	ments—
18	(i) defer the decision on the permit;
19	and
20	(ii) provide to the applicant a notice
21	that specifies modifications to the proposed
22	demonstration project needed for a permit
23	to be issued; or
24	(C) if the Administrator determines that
25	the application does not comply with the re-

1	quirements described in subparagraph (A) and
2	that the application cannot be modified to com-
3	ply with such requirements, deny the permit
4	and provide a justification for the denial.
5	(2) Other approval.—
6	(A) In general.—An application for a
7	permit for a demonstration project under this
8	section shall be considered approved, as if a
9	permit for the application had been issued
10	under paragraph (1)(A), if—
11	(i) the Administrator does not take
12	action under subparagraph (A), (B), or (C)
13	of paragraph (1) within 90 days after the
14	conclusion of the period for public com-
15	ments under subsection (e) with respect to
16	the application;
17	(ii) no formal objection to the applica-
18	tion has been received from the Governor
19	or Tribal leader of a specially affected
20	coastal jurisdiction (as defined in sub-
21	section (e)); and
22	(iii) the Administrator has determined
23	that the application complies with the re-
24	quirements described in paragraph (1)(A).

1	(B) Process.—The Administrator shall
2	establish a process for the approval of applica-
3	tions under this paragraph.
4	(i) Effective Period.—A permit for a demonstra-
5	tion project issued under this section—
6	(1) shall be in effect during the 10-year period
7	beginning on the date on which the project begins
8	in-water operations; and
9	(2) may be renewed as provided by subsection
10	(k).
11	(j) Renewal.—
12	(1) In General.—The Administrator may
13	renew a permit, that has not been revoked, for a
14	demonstration project issued under this section for
15	an additional 10-year period after the 10-year period
16	described in subsection (i)(1) if—
17	(A) the owner or operator of the project
18	submits to the Administrator a proposal for re-
19	newal of the permit by a date determined by
20	the Administrator; and
21	(B) the Administrator determines that the
22	permit, as modified by the proposal, remains in
23	compliance with the requirements described in
24	subsection $(j)(1)$ .

1	(2) Notice and public comment.—The Ad-
2	ministrator shall—
3	(A) publish in the Federal Register a no-
4	tice summarizing each proposal received under
5	paragraph (1) with respect to the renewal of a
6	permit;
7	(B) invite public comments for a period of
8	not less than 60 days regarding each such pro-
9	posal; and
10	(C) consider such comments in deter-
11	mining whether to approve the renewal of the
12	permit.
13	(k) Authority To Modify or Terminate Par-
14	TICIPATION OF DEMONSTRATION PROJECTS AND ORDER
15	REMOVAL OF FACILITIES.—The Administrator may re-
16	quire modifications to a demonstration project for which
17	a permit is issued under this section, terminate such a
18	permit, or order the removal of an offshore aquaculture
19	facility authorized to operate under such a permit, if—
20	(1)(A) the project incurs an incident involving
21	a death or serious personal injury and the Adminis-
22	trator determines that negligence of the project op-
23	erator was the cause of or a contributing factor to
24	the incident;

1	(B) operation of the project results in a viola-
2	tion of—
3	(i) the Endangered Species Act of 1973
4	(16 U.S.C. 1531 et seq.); or
5	(ii) the Marine Mammal Protection Act of
6	1972 (16 U.S.C. 1361 et seq.);
7	(C) the owner or operator of the project fails to
8	comply with all of the terms and conditions of—
9	(i) the permit; or
10	(ii) modifications required by the Adminis-
11	trator under this subsection; or
12	(D) the Administrator determines that oper-
13	ation of the demonstration project would be unsafe
14	or result in unacceptable negative impacts to—
15	(i) the marine environment;
16	(ii) nearby communities; or
17	(iii) other users of the water body in which
18	the project is located; and
19	(2) before requiring a modification to the dem-
20	onstration project, terminating the permit, or order-
21	ing the removal of the offshore aquaculture facil-
22	ity—
23	(A) the Administrator provides a warning
24	notice to the owner or operator of the project;
25	and

1	(B) the owner or operator is given an op-
2	portunity to address the Administrator's con-
3	cerns.
4	(l) Coastal Zone Management Act Review.—
5	The submission of an application for a permit for a dem-
6	onstration project under this section shall trigger the right
7	of review by a coastal State under the Coastal Zone Man-
8	agement Act of 1972 (16 U.S.C. 1451 et seq.).
9	SEC. 203. COORDINATION OF PERMIT REVIEWS FOR DEM-
10	ONSTRATION PROJECTS.
11	(a) In General.—The Administration shall serve as
12	the lead Federal agency for purposes of providing informa-
13	tion on Federal permitting requirements for demonstra-
14	tion projects under section 202.
15	(b) Informal Consultations.—
16	(1) In general.—The Administrator shall con-
17	vene representatives of the agencies described in
18	paragraph (2) to provide prospective applicants for
19	permits for demonstration projects under section
20	202 an opportunity for informal consultation with
21	such agencies.
22	(2) Agencies described.—The agencies de-
23	scribed in this paragraph are the following:
24	(A) The Department of Agriculture.
25	(B) The Environmental Protection Agency.

1	(C) The Army Corps of Engineers.
2	(D) The Department in which the Coast
3	Guard is operating.
4	(E) The Department of Defense.
5	(F) Any other agency the Administrator
6	considers appropriate.
7	(3) Rule of Construction.—Nothing in this
8	subsection shall preclude an applicant or a prospec-
9	tive applicant from contacting Federal agencies di-
10	rectly.
11	(c) Environmental Analysis.—To the extent al-
12	lowable under the National Environmental Policy Act of
13	1969 (42 U.S.C. 4321 et seq.), any environmental analysis
14	or environmental impact statement required under that
15	Act for offshore aquaculture activities proposed to be car-
16	ried out under a demonstration project under section 202
17	shall be conducted through a single, consolidated environ-
18	mental review and the Administration, through the Office
19	of Aquaculture established by section 101, shall serve as
20	the lead Federal agency.
21	(d) Coordination of Permit Reviews.—To the
22	extent practicable under this Act and all other applicable
23	laws, including regulations, Federal agencies with permit-
24	ting requirements applicable to offshore aquaculture ac-
25	tivities proposed to be carried out under a demonstration

1	project under section 202 shall coordinate their review
2	processes in order to provide a timely response to an appli-
3	cant not later than 180 days after the submission of the
4	application.
5	SEC. 204. REPORTING BY ASSESSMENT PROGRAM PARTICI
6	PANTS.
7	(a) In General.—Not later than 1 year after the
8	date on which a demonstration project for which a permit
9	is issued under section 202 commences, and annually
10	thereafter until the demonstration project terminates, the
11	owner or operator of the demonstration project shall sub-
12	mit to the Administrator the following:
13	(1) Production data.
14	(2) Information on interactions with wild spe-
15	cies, mitigation measures taken, and the results of
16	such interactions and measures.
17	(3) Information on technology and operational
18	practices used to measure and monitor—
19	(A) effluent;
20	(B) integrity of cage materials and other
21	gear; and
22	(C) health of the cultivated species.
23	(4) Information on environmental and eco-
24	system impacts.

1	(5) Data necessary for the Ocean Studies
2	Board of the National Academies of Sciences, Engi-
3	neering, and Medicine to complete the study de-
4	scribed in section 401.
5	(6) Owner, operator, and employee demographic
6	data and other relevant data as determined appro-
7	priate by the Administrator for purposes of assess-
8	ing—
9	(A) the direct benefits of the demonstra-
10	tion project to fishery stakeholders; and
11	(B) the economic and social benefits of the
12	demonstration project for nearby coastal com-
13	munities.
14	(7) Information on navigation and safety im-
15	pacts to existing ocean users.
16	(8) Such additional information as the Adminis-
17	trator requires to fulfill the goals and objective of
18	the assessment program established under section
19	201.
20	(b) Technical Assistance.—The Administrator
21	shall, upon request, provide technical assistance to owners
22	and operators of demonstration projects for which permits
23	are issued under section 202 to comply with the reporting

requirements of this section.

1	(c) Emergency Reporting.—The Administrator
2	shall establish an emergency reporting process for each
3	owner or operator of a demonstration project for which
4	a permit is issued under section 202 to immediately report
5	suspected or known interactions between project facilities
6	or vessels and protected wild species.
7	SEC. 205. RULE OF CONSTRUCTION; SAVINGS PROVISIONS
8	(a) Rule of Construction.—Any requirement in
9	this title to identify or consider an impact or effect on
10	human health or the environment shall be construed as
11	including a requirement to make such identification or
12	consideration while taking into account—
13	(1) the cumulative impact of such impact or ef-
14	fect in the context of all sources of emissions, dis-
15	charges, or releases from any source, past, present
16	or in the reasonably foreseeable future, on the af-
17	fected environment and population;
18	(2) any characteristics of such environment and
19	population that may heighten vulnerability to envi-
20	ronmental pollution and related health risks; and
21	(3) any action or practice that, even if appear-
22	ing neutral, has the effect of subjecting individuals
23	to discrimination on the basis of race, color, or na-
24	tional origin.

1	(b) Statutory Construction.—A permit for a
2	demonstration project issued under section 202 shall not
3	supersede or substitute for any other authorization re-
4	quired under Federal or State law.
5	(e) Applicability.—This title does not apply with
6	respect to applications for a permit in process on the date
7	of the enactment of this Act or permits that are in effect
8	on that date.
9	TITLE III—WORKFORCE DEVEL-
10	OPMENT, FINANCING, AND
11	OTHER SUPPORT
12	SEC. 301. GENERAL SUPPORT FOR INDUSTRY.
13	(a) In General.—The Administrator shall support
14	the development of offshore aquaculture consistent with
15	this Act and other applicable Federal law.
16	(b) Marketing and Promotion Grants.—The Ad-
17	ministrator, in consultation with private sector aqua-
18	culture stakeholders, shall establish and administer a
19	grant program to support the sale and public perception
20	of cultured species domestically and internationally.
21	(c) Workforce Development Grants.—
22	(1) In General.—The Administrator, in con-
23	sultation with private sector operators of offshore
24	aquaculture facilities, academic institutions, and the
25	national sea grant college program, shall establish

and administer a grant program to support the education and training of individuals with the skills needed to manage and operate offshore aquaculture

facilities.

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- 5 (2) AQUACULTURE CENTERS OF EXCEL-6 LENCE.—The Administrator may carry out para-7 graph (1) through the program established under 8 section 302(b)(1).
- 9 (d) REGIONAL NETWORKS.—The Administrator, 10 through each regional fisheries office of the Administra-11 tion, shall organize a network of—
  - (1) regional experts and Federal agency contacts, in coordination with relevant organizations, including the national sea grant college program, the Regional Aquaculture Centers of the Department of Agriculture, institutions of higher education, and the Cooperative Extension System of the Department of Agriculture, to provide technical expertise and extension services for offshore aquaculture and information on Federal permit requirements for offshore aquaculture; and
  - (2) individuals and businesses interested in aquaculture operations and products to facilitate professional development, marketing, mentoring op-

- 1 portunities, and agency outreach and education on 2 aquaculture. (e) AQUACULTURE DATABASE.— 3 (1) In General.—The Administrator shall es-5 tablish and maintain an aquaculture database within 6 the Office of Aquaculture established by section 101. 7 (2) Inclusions.—The database required by 8 paragraph (1) shall include information on research, 9 technologies, monitoring techniques, best practices, 10 and advisory board recommendations relating to 11 aquaculture and offshore aquaculture. 12 SAFEGUARDING OF INFORMATION.—The 13 Administrator shall make the database required by 14 paragraph (1) available in a manner that safeguards 15 personally identifiable information and confidential business information. 16 17 (4) Patents.—The inclusion of information in 18 the database required by paragraph (1) shall not be 19 considered to be publication for purposes of sub-20 section (a) or (b) of section 102 of title 35, United 21 States Code. 22 (f) Technical Assistance Programs for Opera-23 TORS.—
- 24 (1) IN GENERAL.—The Administrator, through 25 the Office of Aquaculture established by section 101

- and the regional aquaculture coordinators described in such section, shall organize a program in each regional fisheries office of the Administration to provide technical assistance to operators of offshore aquaculture facilities.
  - (2) Tailoring.—The programs required by paragraph (1) shall be tailored to meet the unique needs of each region.
  - (3) Consultations.—Under each program required by paragraph (1), the regional aquaculture coordinators described in section 101 may conduct consultations with the operator of each offshore aquaculture facility in the region concerned on a regular basis—
    - (A) to assess the status of the operator's business; and
    - (B) if appropriate, to identify available resources to support the operator, such as regional experts, university extension agents, and grant opportunities.

## (g) Capital Markets.—

(1) Provision of information.—In order to enhance access to capital markets, the Administrator shall provide financial institutions and investment firms with objective, science-based information on

1	offshore aquaculture and the Federal regulatory re-
2	gime for offshore aquaculture.
3	(2) Economic analysis.—The Administrator
4	shall provide economic analysis to answer queries re-
5	garding the value of offshore aquaculture assets to
6	secure financing, such as equipment, governmental
7	permits, inventory, and intellectual property.
8	(3) Collaboration.—In order to achieve the
9	goals of this subsection, the Administrator is encour-
10	aged to collaborate with the Secretary of Agri-
11	culture, the Secretary of the Treasury, and the re-
12	gional networks established under subsection (d).
13	SEC. 302. AQUACULTURE CENTERS OF EXCELLENCE.
14	(a) Definitions.—In this section:
15	(1) COVERED INSTITUTION.—The term "cov-
16	ered institution" means—
17	(A) a minority-serving institution;
18	(B) a Native Hawaiian-serving institution;
19	(C) an Alaska Native-serving institution;
20	(D) a historically Black college or univer-
21	sity; or
22	(E) a Tribal college or university.
23	(2) Historically black college or uni-
24	VERSITY.—The term "historically Black college or
25	university" has the meaning given the term "part B

- institution" in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).
- 3 (3) MINORITY-SERVING INSTITUTION.—The 4 term "minority-serving institution" means an eligi-5 ble institution described in paragraph (2), (4), (5), 6 (6), or (7) of section 371(a) of the Higher Edu-7 cation Act of 1965 (20 U.S.C. 1067q(a)).
  - (4) Tribal college or university" means a Tribal College or University (as defined in section 316(b) of the Higher Education Act of 1965 (20 U.S.C. 1059c(b))) that is chartered by the governing body of the applicable Indian Tribe or by the Federal Government.

## (b) AQUACULTURE CURRICULUM GRANTS.—

(1) In General.—Not later than 1 year after the date of the enactment of this Act, the Administrator, in consultation with private sector aquaculture stakeholders, academic institutions, and the national sea grant college program, shall establish a program to award grants to covered institutions to assist in establishing or enhancing an aquaculture curriculum for undergraduate, graduate, or certificate courses of study at such covered institutions.

1	(2) Aquaculture centers of excel-
2	LENCE.—A covered institution that receives a grant
3	under this section shall be known as an "Aqua-
4	culture Center of Excellence''.
5	(3) APPLICATIONS.—To be eligible to receive a
6	grant under this section, a covered institution shall
7	submit to the Administrator an application that in-
8	cludes any plans to partner with one or more other
9	institutions of higher education as authorized under
10	paragraph (5).
11	(4) Use of grant amounts.—
12	(A) In general.—A covered institution
13	receiving a grant under this section shall use
14	the grant amounts to establish or enhance an
15	aquaculture curriculum for undergraduate,
16	graduate, or certificate courses of study that
17	may include the following:
18	(i) Training in various skills needed
19	by successful aquaculture entrepreneurs,
20	including—
21	(I) offshore aquaculture oper-
22	ations;
23	(II) business management, stra-
24	tegic planning, business plan develop-
25	ment, capital financing and fund-

1	raising, financial management and ac-
2	counting, market analysis and com-
3	petitive analysis, and market entry
4	and strategy execution; and
5	(III) any other skill specific to
6	the needs of the student population
7	and the surrounding community, in-
8	cluding with respect to social and en-
9	vironmental sustainability, as deter-
10	mined by the covered institution.
11	(ii) Natural and social science re-
12	search programs in aquaculture and nat-
13	ural fisheries, including offshore aqua-
14	culture.
15	(iii) Development of extension pro-
16	grams (or cooperation with existing exten-
17	sion programs) that—
18	(I) educate and engage commu-
19	nity members, including elementary
20	and secondary school students, on
21	aquaculture and aquaculture career
22	pathways; and
23	(II) transfer newly developed
24	techniques and research information
25	developed or collated at the covered

- 1 institution to aquaculture stake-2 holders.
- (iv) Career development, such as the
  establishment of cooperatives, apprenticeships, internships, practicums,
  mentorships, accelerators, or grant competitions.
  - (B) Limitations on use of grant awarded and another this section may be used only for expenses directly related to the implementation of the curriculum or activities authorized under this section.
  - (5) Partnerships.—In applying for grants and carrying out activities with grant amounts under this section, a covered institution may partner with one or more other institutions of higher education with established aquaculture programs, including institutions of higher education not otherwise eligible for grants under this section, to facilitate the sharing of resources and knowledge necessary for the development or enhancement of aquaculture curriculum at the covered institution.
- 24 (c) AUTHORIZATION OF APPROPRIATIONS.—There is 25 authorized to be appropriated to carry out this section

1	\$25,000,000 for each of fiscal years $2026$ through $2030$ ,
2	to remain available until expended.
3	SEC. 303. WORKING WATERFRONTS PRESERVATION GRANT
4	PROGRAM.
5	(a) IN GENERAL.—The Secretary of Commerce, act-
6	ing through the Assistant Secretary of Commerce for Eco-
7	nomic Development (referred to in this section as the
8	"Secretary"), shall award grants, on a competitive basis,
9	that support the commercial fishing industry, the aqua-
10	culture industry, the for-hire recreational fishing industry,
11	or the boatbuilding industry in coastal States.
12	(b) APPLICATION.—An entity desiring a grant under
13	this section shall submit to the Secretary an application
14	containing such information as the Secretary may reason-
15	ably require.
16	(c) Considerations.—In selecting entities to receive
17	a grant under this section, the Secretary shall give sub-
18	stantial weight to—
19	(1) the economic significance of a project to the
20	commercial fishing industry, the aquaculture indus-
21	try, the for-hire recreational fishing industry, or the
22	boatbuilding industry in the immediate vicinity and
23	in the coastal State in which the project is located;
24	(2) the availability of waterfront access points
25	for the commercial fishing industry, the aquaculture

- industry, the for-hire recreational fishing industry, or the boatbuilding industry within the community in which the entity seeks to carry out the project;
  - (3) the utility of the project for use in the commercial fishing industry, the aquaculture industry, the for-hire recreational fishing industry, or the boatbuilding industry with respect to the natural characteristics and developed infrastructure of the community in which the project will be located;
  - (4) whether the entity has a business plan for the project;
  - (5) anticipated or likely impacts of the project on existing uses, including commercial fishing, aquaculture, offshore aquaculture, for-hire recreational fishing, or boatbuilding;
  - (6) the ability of the entity to demonstrate a need, or support, for the project within that community; and
- 19 (7) if the project will confer property protection 20 benefits, and the duration of those benefits.
- 21 (d) Cost-Sharing.—A grant under this section for 22 a project may not exceed 50 percent of the total cost of 23 the project.
- 24 (e) Improved or Protected Property.—

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- 1 (1) In General.—A grant under this section 2 may be used to improve or protect privately-owned 3 real property or interests in privately-owned real 4 property, including easements, only from willing 5 owners. (2) No exercise of eminent domain.—No 6 7 Federal, State, or local agency may exercise the 8 power of eminent domain to secure title to any real 9 property or facilities in connection with a project 10 carried out with a grant under this section. 11 (f) AUTHORIZATION OF APPROPRIATIONS.—There is 12 authorized to be appropriated to carry out this section \$20,000,000 for each of fiscal years 2026 through 2030. 13 14 SEC. 304. OUTREACH ON SUSTAINABLE OFFSHORE AQUA-15 CULTURE. (a) IN GENERAL.—The Administrator shall conduct 16 outreach on sustainable offshore aquaculture to promote 18 understanding, science-based decision making, and com-19 mercial adoption.
- 20 (b) Engagement.—In carrying out subsection (a),
- 21 the Administrator shall use appropriate means to en-
- 22 gage—
- 23 (1) the general public;
- 24 (2) community leaders;
- 25 (3) governmental officials;

1	(4) the business community;
2	(5) the academic community; and
3	(6) the nonprofit sector.
4	TITLE IV—STUDIES AND
5	REPORTS
6	SEC. 401. STUDY ON OFFSHORE AQUACULTURE BY OCEAN
7	STUDIES BOARD OF THE NATIONAL ACAD-
8	EMIES OF SCIENCES, ENGINEERING, AND
9	MEDICINE.
10	(a) In General.—The Administrator shall seek to
11	enter into a contract with the Ocean Studies Board of the
12	National Academies of Sciences, Engineering, and Medi-
13	cine (in this section referred to as the "Board") under
14	which the Board shall, not later than 5 years after the
15	date on which the Administrator establishes the assess-
16	ment program under section 201—
17	(1) complete a study to develop the scientific
18	basis for efficient and effective regulation of offshore
19	aquaculture; and
20	(2) submit to Congress and make publicly avail-
21	able the results of the study.
22	(b) Elements.—The study completed pursuant to
23	subsection (a) shall, with respect to offshore aqua-
24	culture—
25	(1) identify—

1	(A) optimal methods of operation of off-
2	shore aquaculture facilities to limit adverse ef-
3	fects on the environment, wildlife, and human
4	well-being, including—
5	(i) considerations to guide siting deci-
6	sions of such facilities;
7	(ii) appropriate stocking densities; and
8	(iii) opportunities for selective breed-
9	ing;
10	(B) a science-based definition of "respon-
11	sible offshore aquaculture feed or other inputs",
12	including guidance on sourcing feed or other in-
13	puts to address long- or short-term concerns,
14	including the availability and scalability of such
15	inputs;
16	(C) potential adverse effects on the envi-
17	ronment, wildlife, and human well-being, includ-
18	ing from—
19	(i) the use of antibiotics and other
20	pharmaceuticals by offshore aquaculture
21	facilities, including through analyses nec-
22	essary to establish acceptable rates, impact
23	levels, and risk thresholds, such as anal-
24	yses of organism antibiotic consumption or

1	metabolization versus excretion to the sur-
2	rounding environment;
3	(ii) assimilation of pollution origi-
4	nating from offshore aquaculture facilities
5	on marine organisms;
6	(iii) abandoned, lost, damaged or oth-
7	erwise discarded equipment;
8	(iv) harmful interactions with wildlife;
9	(v) interbreeding between cultured
10	species and native marine species;
11	(vi) the spread of disease from cul-
12	tured species to wild species;
13	(vii) the collection and removal of
14	brood stock for offshore aquaculture oper-
15	ations, and hatcheries and prestocking
16	rearing operations that are specific to off-
17	shore aquaculture;
18	(viii) large-scale cultivation of filter-
19	feed bivalve organisms and seaweed;
20	(ix) offshore aquaculture facilities act-
21	ing as aggregating devices and increasing
22	the vulnerability of wild fisheries and wild-
23	life populations to fishing or other sources
24	of mortality;

1	(x) predator control devices and meth-
2	ods; and
3	(xi) the use of non-sustainable sources
4	of feed or other inputs, including the use
5	of globally limited marine resources for
6	feed ingredients, and scalability of alter-
7	natives, including—
8	(I) novel ingredients (for exam-
9	ple, insect, single cell protein, and
10	algae);
11	(II) traditional ingredients (for
12	example, soya); and
13	(III) other inputs;
14	(D) potential methods and technologies to
15	mitigate adverse effects, including the effects
16	identified under subparagraph (C);
17	(E) potential conflicts between offshore
18	aquaculture facilities and other users of the off-
19	shore environment, and solutions to mitigate
20	such conflicts;
21	(F) the types of data and qualitative infor-
22	mation necessary for the optimal operation of
23	offshore aquaculture facilities and appropriate
24	methods of procuring such data and informa-
25	tion, including from—

1	(i) citizen science (as defined in sec-
2	tion 402(c) of the Crowdsourcing and Cit-
3	izen Science Act (15 U.S.C. 3724(e))); and
4	(ii) the traditional knowledge of Trib-
5	al and Indigenous communities; and
6	(G) best practices for offshore aquaculture
7	siting and operations to manage and plan for
8	predicted changes in global atmospheric and
9	oceanographic conditions; and
10	(2) provide recommendations for legislative or
11	administrative action with respect to—
12	(A) methods of operation identified under
13	paragraph (1)(A);
14	(B) mitigating adverse effects identified
15	under paragraph (1)(C);
16	(C) environmental standards, control rules,
17	or reference points that build on the existing
18	public and private standards for the sustain-
19	ability of offshore aquaculture; and
20	(D) ensuring that operators of offshore
21	aquaculture facilities adhere to international
22	standards for social responsibility, public
23	health, and equitable labor practices, including
24	with respect to sourcing inputs for such facili-
25	ties.

1	SEC. 402. REPORT ON OFFSHORE AQUACULTURE BY GOV-
2	ERNMENT ACCOUNTABILITY OFFICE.
3	(a) IN GENERAL.—Not later than 5 years after the
4	date on which the Administrator establishes the assess-
5	ment program under section 201, the Comptroller General
6	of the United States shall submit to the appropriate com-
7	mittees of Congress a report examining the permitting,
8	monitoring, and regulation of offshore aquaculture during
9	the 15-year period ending on such date of establishment.
10	(b) Bases of Report.—The Comptroller General
11	shall base the report required by subsection (a) on avail-
12	able literature, case studies, and aquaculture stakeholder
13	input.
14	(c) Elements of Report.—The report required by
15	subsection (a) shall—
16	(1) assess the feasibility and potential positive
17	and negative implications of designating a lead agen-
18	cy to issue permits for offshore aquaculture oper-
19	ations in a timely manner;
20	(2) identify lessons learned during the period
21	described in subsection (a) with respect to—
22	(A) the effect of offshore aquaculture type,
23	location, and regulatory framework on the suc-
24	cess of offshore aquaculture projects;
25	(B) the degree of involvement of coastal or
26	adjacent States or Tribal or Indigenous commu-

1	nities in consultations for, planning for, or op-
2	erations of offshore aquaculture;
3	(C) safety protocols and risk mitigation
4	measures for the permitting and oversight proc-
5	esses for offshore aquaculture, including—
6	(i) escape prevention measures;
7	(ii) emergency event response plan-
8	ning;
9	(iii) compliance monitoring, particu-
10	larly in remote locations;
11	(iv) compliance with Federal laws;
12	(v) mechanisms for reporting to ap-
13	propriate Federal authorities; and
14	(vi) vessel navigation aids to ensure
15	navigational safety;
16	(D) the effect of incentives to reduce ad-
17	verse effects or disparate impacts from offshore
18	aquaculture operations;
19	(E) building and optimizing synergies be-
20	tween offshore aquaculture and wild-caught
21	fishing activities, or offshore, nearshore, and
22	onshore aquaculture activities, including market
23	development, increasing seafood consumption
24	and shared infrastructure;

1	(F) the environmental effects of offshore
2	aquaculture operations, including mechanisms
3	to prevent harm to the environment, wildlife, or
4	human well-being;
5	(G) the net economic and social benefits of
6	offshore aquaculture projects, particularly for
7	nearby communities and fishery stakeholders,
8	based on project size, regulatory structures, and
9	financing structures;
10	(H) the impact of introducing offshore
11	aquaculture products to the marketplace on
12	supply and demand for wild-capture fisheries
13	products, and methods for ensuring resiliency
14	and growth for both offshore aquaculture and
15	wild-capture fisheries products;
16	(I) mechanisms to enhance capital invest-
17	ment, workforce development, and equitable op-
18	portunity requirements or assistance programs
19	in the permitting process for offshore aqua-
20	culture, or to diversify permit applicants;
21	(J) outstanding needs for continued re-
22	search, development, education activities, pro-
23	grams, and funding regarding—
24	(i) offshore aquaculture projects; and

1	(ii) development of the domestic work-
2	force and entrepreneurship related to off-
3	shore aquaculture;
4	(K) the economic potential for both large-
5	and small-scale offshore aquaculture operations
6	to generate a positive return on investment
7	under various regulatory and financing struc-
8	tures;
9	(L) the applicability and sufficiency of ex-
10	isting regulatory systems for offshore aqua-
11	culture; and
12	(M) existing local, State, Federal, and for-
13	eign regulatory standards that may serve as
14	models for efficient and effective regulation of
15	offshore aquaculture; and
16	(3) include such recommendations as the Comp-
17	troller General may have with respect to future off-
18	shore aquaculture operations, including with respect
19	to—
20	(A) regulatory processes necessary for per-
21	mitting, monitoring, and oversight, including
22	processes and techniques related to siting, de-
23	ployment, operations, and decommissioning;
24	(B) potential safeguards, data collection,
25	or monitoring required to minimize disparate

1	impacts on specially affected coastal jurisdic-
2	tions (as defined in section 202(e)), fishery
3	stakeholders, local economies, marine environ-
4	ments, and existing domestic economic sectors
5	(C) mechanisms for optimizing coordina-
6	tion among Federal agencies with a role in per-
7	mitting or supporting offshore aquaculture
8	without compromising the goals of such permit-
9	ting;
10	(D) methods for effectively involving aqua-
11	culture stakeholders, including—
12	(i) specially affected coastal jurisdic-
13	tions (as defined in section 202(e));
14	(ii) local communities;
15	(iii) regional offshore waters users
16	and management groups, including re-
17	gional fishery management councils; and
18	(iv) users of local, State, Tribal, and
19	Federal waters and coastal resources;
20	(E) best practices for incorporating local
21	knowledge, including from Tribal or Indigenous
22	communities;
23	(F) capabilities of Federal agencies that
24	are necessary for effective regulation of the off-
25	shore aquaculture sector; and

1 (G) how creating private rights of action or
2 waiving sovereign immunity would affect the de3 velopment of offshore aquaculture projects and
4 the acceptance of such projects by nearshore
5 and offshore waters user groups and coastal
6 communities.

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