

118TH CONGRESS
1ST SESSION

H. R. 5944

To require the Administrator of the National Oceanic and Atmospheric Administration to establish an assessment program for offshore aquaculture, to establish Aquaculture Centers of Excellence, to require a study and report, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

OCTOBER 12, 2023

Ms. MACE (for herself, Mr. PANETTA, and Ms. PINGREE) introduced the following bill

OCTOBER 25, 2023

Referred to the Committee on Natural Resources, and in addition to the Committee on Education and Workforce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

To require the Administrator of the National Oceanic and Atmospheric Administration to establish an assessment program for offshore aquaculture, to establish Aquaculture Centers of Excellence, to require a study and report, 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.**

2 This Act may be cited as the “Science-based Equi-
3 table Aquaculture Food Act” or the “SEAfood Act”.

4 **SEC. 2. DEFINITIONS.**

5 In this Act:

6 (1) ADMINISTRATOR.—The term “Adminis-
7 trator” means the Administrator of the National
8 Oceanographic and Atmospheric Administration.

9 (2) APPROPRIATE COMMITTEES OF CON-
10 GRESS.—The term “appropriate committees of Con-
11 gress” means—

12 (A) the Committee on Commerce, Science,
13 and Transportation of the Senate;

14 (B) the Committee on Environment and
15 Public Works of the Senate;

16 (C) the Committee on Agriculture, Nutri-
17 tion, and Forestry of the Senate;

18 (D) the Committee on Natural Resources
19 of the House of Representatives;

20 (E) the Committee on Agriculture of the
21 House of Representatives; and

22 (F) the Committee on Transportation and
23 Infrastructure of the House of Representatives.

24 (3) COMMUNITY WITH ENVIRONMENTAL JUS-
25 TICE CONCERNS.—The term “community with envi-
26 ronmental justice concerns” means a community

1 with significant representation of any of the fol-
2 lowing:

3 (A) Individuals who reside in a census
4 block group in which 30 percent or more of the
5 population are individuals with an annual
6 household income that does not exceed the
7 greater of—

8 (i) an amount equal to 80 percent of
9 the median income of the area in which the
10 household is located, as reported by the
11 Secretary of Housing and Urban Develop-
12 ment; or

13 (ii) 200 percent of the Federal pov-
14 erty line.

15 (B) Individuals who reside in a geographi-
16 cally distinct area in which the population of
17 any of the following categories of individuals is
18 higher than the average population of that cat-
19 egory for the State in which the community is
20 located:

21 (i) Black.

22 (ii) African American.

23 (iii) Asian.

24 (iv) Pacific Islander.

25 (v) Other non-White race.

1 (vi) Hispanic.

2 (vii) Latino.

3 (viii) Linguistically isolated.

4 (C) Members of a Tribal or Indigenous
5 community.

6 (4) COUNCIL COORDINATION COMMITTEE.—The
7 term “Council Coordination Committee” means the
8 committee established under section 302(l) of the
9 Magnuson-Stevens Fishery Conservation and Man-
10 agement Act (16 U.S.C. 1852(l)).

11 (5) COVERED INSTITUTION.—The term “cov-
12 ered institution” means—

13 (A) a minority-serving institution;

14 (B) a historically Black college or univer-
15 sity; or

16 (C) a Tribal College or University.

17 (6) ESCAPE.—The term “escape” means the es-
18 cape of juvenile- or adult-farmed organisms, viable
19 gametes, or fertilized eggs spawned by farmed orga-
20 nisms from offshore aquaculture facilities.

21 (7) EXCLUSIVE ECONOMIC ZONE.—The term
22 “exclusive economic zone” has the meaning given
23 that term in section 3 of the Magnuson-Stevens
24 Fishery Conservation and Management Act (16
25 U.S.C. 1802).

1 (8) HISTORICALLY BLACK COLLEGE OR UNI-
2 VERSITY.—The term “historically Black college or
3 university” has the meaning given the term “part B
4 institution” in section 322 of the Higher Education
5 Act of 1965 (20 U.S.C. 1061).

6 (9) INDIAN TRIBE.—The term “Indian Tribe”
7 has the meaning given that term in section 4 of the
8 Indian Self-Determination and Education Assistance
9 Act (25 U.S.C. 5304).

10 (10) INSTITUTION OF HIGHER EDUCATION.—
11 The term “institution of higher education” has the
12 meaning given that term in section 101 of the High-
13 er Education Act of 1965 (20 U.S.C. 1001).

14 (11) MINORITY-SERVING INSTITUTION.—The
15 term “minority-serving institution” means an eligi-
16 ble institution described in paragraph (2), (4), (5),
17 (6), or (7) of section 371(a) of the Higher Edu-
18 cation Act of 1965 (20 U.S.C. 1067q(a)).

19 (12) OFFSHORE AQUACULTURE.—The term
20 “offshore aquaculture” means aquaculture con-
21 ducted in the exclusive economic zone.

22 (13) SPECIALLY AFFECTED ADJACENT COASTAL
23 JURISDICTION.—The term “specially affected adja-
24 cent coastal jurisdiction” means, with respect to any
25 activity proposed, conducted, or approved by the Ad-

1 administrator under section 4, any coastal State land
2 or coastal Tribal land—

3 (A) that is adjacent to, or the waters of
4 which are adjacent to, the Federal waters in
5 which such activity is conducted;

6 (B) that is used, or is scheduled to be
7 used, as a support base for such activity; and

8 (C) for which there is a reasonable prob-
9 ability of significant effect on uses of land or
10 water from such activity.

11 (14) STATE.—The term “State” means each of
12 the several States, the District of Columbia, and
13 each commonwealth, territory, or possession of the
14 United States.

15 (15) TRIBAL COLLEGE OR UNIVERSITY.—The
16 term “Tribal College or University” means an insti-
17 tution described in section 316(b) of the Higher
18 Education Act of 1965 (20 U.S.C. 1059c(b)) that is
19 chartered by the governing body of the applicable In-
20 dian Tribe or by the Federal Government.

21 (16) TRIBAL LAND.—The term “Tribal land”
22 means land that is subject to the jurisdiction of an
23 Indian Tribe.

1 (17) TRIBAL OR INDIGENOUS COMMUNITY.—

2 The term “Tribal or Indigenous community” means
3 a population of people who are—

4 (A) enrolled members of an Indian Tribe;

5 (B) members of an Alaska Native or Na-
6 tive Hawaiian community or organization; or

7 (C) members of any other community of
8 Indigenous people located in a State.

9 (18) UNDERSERVED COMMUNITIES.—

10 (A) IN GENERAL.—The term “underserved
11 communities” means—

12 (i) women; and

13 (ii) individuals belonging to commu-
14 nities that have been denied consistent and
15 systematic fair, just, and impartial treat-
16 ment and have been systematically denied
17 a full opportunity to participate in all as-
18 pects of economic, social, and civic life, in-
19 cluding—

20 (I) Black, Latino, Indigenous,
21 and Native American individuals;

22 (II) Asian Americans and Pacific
23 Islanders; and

24 (III) other persons of color.

1 (B) INCLUSIONS.—In the context of the
2 offshore aquaculture industry, the term “under-
3 served communities”, within fishing commu-
4 nities, may include—

5 (i) subsistence fishery participants
6 and their dependents;

7 (ii) fishing vessel crews;

8 (iii) fish processor and distribution
9 workers; and

10 (iv) territorial fishing communities,
11 including such communities in American
12 Samoa, Guam, the Commonwealth of the
13 Northern Mariana Islands, Puerto Rico,
14 and the United States Virgin Islands.

15 (19) VETERAN.—The term “veteran” has the
16 meaning given that term in section 101 of title 38,
17 United States Code.

18 **SEC. 3. STUDY ON OFFSHORE AQUACULTURE BY OCEAN**
19 **STUDIES BOARD OF THE NATIONAL ACAD-**
20 **EMIES OF SCIENCES, ENGINEERING, AND**
21 **MEDICINE.**

22 (a) STUDY.—The Administrator shall seek to enter
23 into a contract with the Ocean Studies Board of the Na-
24 tional Academies of Sciences, Engineering, and Medicine
25 (in this section referred to as the “Board”) under which

1 the Board shall, not later than 30 months after the date
2 of the enactment of this Act—

3 (1) complete a study—

4 (A) to determine whether the Board rec-
5 ommends the pursuit of offshore aquaculture;
6 and

7 (B) if the Board recommends the pursuit
8 of offshore aquaculture, to develop the scientific
9 basis for efficient and effective regulation of
10 offshore aquaculture; and

11 (2) submit to Congress and make publicly avail-
12 able the results of the study.

13 (b) ELEMENTS.—The study completed pursuant to
14 subsection (a) shall, with respect to offshore aqua-
15 culture—

16 (1) identify—

17 (A) optimal methods of operation of off-
18 shore aquaculture facilities to limit adverse ef-
19 fects on the environment, wildlife, and human
20 well-being, including—

21 (i) considerations to guide siting deci-
22 sions of such facilities;

23 (ii) appropriate stocking densities; and

24 (iii) opportunities for selective breed-
25 ing;

1 (B) a science-based definition of “respon-
2 sible offshore aquaculture feed or other inputs”,
3 including guidance on sourcing feed or other in-
4 puts to address long- or short-term concerns,
5 including the availability and scalability of such
6 inputs;

7 (C) potential adverse effects on the envi-
8 ronment, wildlife, and human well-being, includ-
9 ing from—

10 (i) the use of antibiotics and other
11 pharmaceuticals by offshore aquaculture
12 facilities, including through analyses nec-
13 essary to establish acceptable rates, impact
14 levels, and risk thresholds, such as anal-
15 yses of organism antibiotic consumption or
16 metabolization versus excretion to the sur-
17 rounding environment;

18 (ii) assimilation of pollution origi-
19 nating from such facilities on marine orga-
20 nisms;

21 (iii) the risk posed by misplaced or
22 damaged equipment;

23 (iv) the risk of harmful interactions
24 with wildlife;

1 (v) interbreeding and the spread of
2 disease;

3 (vi) the source and environmental im-
4 pacts associated with the collection and re-
5 moval of brood stock for offshore aqua-
6 culture operations and impacts of hatch-
7 eries and prestocking rearing operations
8 that are specific to offshore aquaculture;

9 (vii) large-scale cultivation of filter-
10 feed bivalve organisms and seaweed on the
11 marine food webs;

12 (viii) offshore aquaculture facilities
13 acting as aggregating devices and increas-
14 ing the vulnerability of wild fisheries and
15 wildlife populations to fishing or other
16 sources of mortality;

17 (ix) predator control devices and
18 methods; and

19 (x) the use of nonsustainable sources
20 of feed or other inputs, including the use
21 of globally limited marine resources for
22 feed ingredients, environmental impacts,
23 and scalability of alternatives, including—

1 (I) novel ingredients (for exam-
2 ple, insect, single cell protein, and
3 algae);

4 (II) traditional ingredients (for
5 example, soya); and

6 (III) other inputs;

7 (D) potential methods and technologies to
8 mitigate adverse effects, including the effects
9 identified under subparagraph (C);

10 (E) potential conflicts and solutions to
11 mitigate such conflicts between offshore aqua-
12 culture facilities and other users of the offshore
13 environment;

14 (F) the types of data and qualitative infor-
15 mation necessary for the optimal operation of
16 such facilities and appropriate methods of pro-
17 curing such data and information, including
18 from—

19 (i) citizen science (as defined in sec-
20 tion 402(c) of the Crowdsourcing and Cit-
21 izen Science Act (15 U.S.C. 3724(c))); and

22 (ii) the traditional offshore aqua-
23 culture knowledge of Tribal and Indige-
24 nous communities; and

1 (G) the considerations necessary to ac-
2 count for the effects of climate change pre-
3 dictive assessments on the siting and operation
4 of offshore aquaculture facilities; and

5 (2) provide recommendations for legislative or
6 administrative action with respect to—

7 (A) methods of operation identified under
8 paragraph (1)(A);

9 (B) mitigating adverse effects identified
10 under paragraph (1)(C);

11 (C) environmental standards, control rules,
12 or reference points that build upon the existing
13 public and private standards for the sustain-
14 ability of offshore aquaculture; and

15 (D) ensuring that operators of offshore
16 aquaculture facilities adhere to international
17 standards for social responsibility, public
18 health, and equitable labor practices, including
19 with respect to sourcing inputs for such facili-
20 ties.

21 **SEC. 4. ASSESSMENT PROGRAM FOR OFFSHORE AQUA-**
22 **CULTURE.**

23 (a) ESTABLISHMENT OF PROGRAM.—Not earlier
24 than 180 days after the date on which the Administrator
25 enters into a contract under section 3(a) and not later

1 than 2 years after such date, the Administrator shall es-
2 tablish an assessment program (in this section referred to
3 as the “assessment program”) to evaluate the following
4 with respect to offshore aquaculture:

5 (1) The ability of different commercial-scale fa-
6 cility designs and operational methods—

7 (A) to survive various atmospheric and
8 ocean conditions, including high wind speeds or
9 high-energy ocean conditions associated with se-
10 vere weather, without—

11 (i) allowing escapes;

12 (ii) loss of infrastructure; or

13 (iii) wildlife entanglement resulting
14 from loss or damaged infrastructure;

15 (B) to prevent adverse wildlife impacts, in-
16 cluding entanglements of large whales, sea tur-
17 tles, and other species protected under—

18 (i) the Endangered Species Act of
19 1973 (16 U.S.C. 1531 et seq.); and

20 (ii) the Marine Mammal Protection
21 Act of 1972 (16 U.S.C. 1361 et seq.);

22 (C) to prevent adverse impacts on the ma-
23 rine environment, including impacts to habitat,
24 water chemistry, and wildlife; and

1 (D) to avoid adverse impacts on navigation
2 and safety to existing ocean users due to off-
3 shore aquaculture facilities, including require-
4 ments for operations, navigation, and transit
5 associated with such facilities.

6 (2) The ability of different technologies to pro-
7 vide reliable and timely data on offshore aquaculture
8 facilities, including visual data and other relevant
9 data types, on a regular basis to enable the Adminis-
10 trator to monitor—

11 (A) the compliance of projects with the re-
12 quirements under subsection (b)(4)(5);

13 (B) impacts on the marine environment;
14 and

15 (C) interference with existing uses of the
16 water body in which the project is located.

17 (3) The relative risks, benefits, and cost of var-
18 ious types of offshore aquaculture, including dif-
19 ferent species of finfish in different geographies and
20 under varying climactic and ecological conditions.

21 (4) The development of performance standards
22 for offshore aquaculture operations.

23 (b) SELECTION OF DEMONSTRATION PROJECTS.—

24 (1) SOLICITATION AND ACCEPTANCE OF APPLI-
25 CATIONS.—The Administrator shall solicit and ac-

1 cept applications for inclusion in the assessment pro-
2 gram from owners and operators of offshore aqua-
3 culture demonstration projects, including commer-
4 cial-scale demonstration projects, that—

5 (A) would advance the objectives described
6 in subsection (a) and involve objective analyses
7 of data; and

8 (B) are operating on the date on which the
9 application is submitted, were operated in off-
10 shore waters of the United States or other
11 countries at any time during the 15-year period
12 preceding the date on which the application is
13 submitted (including such projects that are on-
14 going as of such date), or are proposed to be
15 operated.

16 (2) NOTICE AND PUBLIC COMMENT.—The Ad-
17 ministrator shall—

18 (A) publish in the Federal Register a no-
19 tice summarizing each application received
20 under this subsection; and

21 (B) invite public comments regarding the
22 projects proposed in those applications for in-
23 clusion in the assessment program.

24 (3) SPECIALLY AFFECTED ADJACENT COASTAL
25 JURISDICTIONS.—

1 (A) DESIGNATION.—The Administrator
2 shall establish a mechanism for identifying and
3 designating, with respect to each application for
4 a demonstration project received under this
5 subsection, the specially affected adjacent coast-
6 al jurisdiction or jurisdictions.

7 (B) NOTICE.—For each application for a
8 demonstration project received under this sub-
9 section, the Administrator shall provide a copy
10 of the application to the Governor or executive
11 of the State or Tribal government of each spe-
12 cially affected adjacent coastal jurisdiction des-
13 igned with respect to the application under
14 subparagraph (A).

15 (C) REJECTION AT THE REQUEST OF SPE-
16 CIALY AFFECTED ADJACENT COASTAL JURIS-
17 DITIONS.—If, during the 60-day period begin-
18 ning on the date on which a specially affected
19 adjacent coastal jurisdiction receives notice of
20 an application under subparagraph (B), the
21 Governor or executive of the State or Tribal
22 government of the jurisdiction requests that the
23 Administrator reject the application, the Ad-
24 ministrator shall reject the application.

1 (4) APPROVAL OF DEMONSTRATION
2 PROJECTS.—The Administrator may approve not
3 more than 4 applications for demonstration projects
4 under this subsection for inclusion in the assessment
5 program.

6 (5) REQUIREMENTS.—

7 (A) ALL DEMONSTRATION PROJECTS.—

8 (i) IN GENERAL.—Each demonstra-
9 tion project approved for inclusion in the
10 assessment program—

11 (I) shall—

12 (aa) cultivate only native
13 species that pose a minimal
14 threat of harm to wildlife and the
15 ecosystem in which the project is
16 located;

17 (bb) incorporate design and
18 operational characteristics that
19 minimize the risk of escape, wild-
20 life entanglement, and adverse
21 pollution impacts;

22 (cc) have developed and be
23 able to implement an escape re-
24 sponse and infrastructure loss or
25 damage plan that minimizes the

1 impact of any escapes or infra-
2 structure loss or damage on the
3 marine environment and on other
4 uses of the water body in which
5 the project is located;

6 (dd) comply with all applica-
7 ble requirements of—

8 (AA) the Federal Water
9 Pollution Control Act (33
10 U.S.C. 1251 et seq.) (com-
11 monly referred to as the
12 “Clean Water Act”);

13 (BB) the Endangered
14 Species Act of 1973 (16
15 U.S.C. 1531 et seq.);

16 (CC) the Marine Mam-
17 mal Protection Act of 1972
18 (16 U.S.C. 1361 et seq.);
19 and

20 (DD) the National En-
21 vironmental Policy Act of
22 1969 (42 U.S.C. 4321 et
23 seq.);

24 (ee) be compatible with, and
25 prevent or minimize displacement

1 of, existing uses and users of the
2 marine environment in which the
3 project is located;

4 (ff) conform to best prac-
5 tices to avoid or minimize the use
6 of antibiotics and other pharma-
7 ceuticals and minimize the re-
8 lease of such pharmaceuticals
9 into the environment; and

10 (gg) except as provided in
11 clause (ii), be conducted over a
12 period of 5 years; and

13 (II) shall not—

14 (aa) cultivate or otherwise
15 use salmon, including king, chi-
16 nook, coho, chum, sockeye, pink,
17 masu, amago, or Atlantic salmon,
18 even if such salmon is considered
19 a native species; or

20 (bb) be sited in any area
21 designated by the National Ma-
22 rine Fisheries Service as critical
23 habitat for endangered or criti-
24 cally endangered wildlife.

25 (ii) EXTENSIONS.—

1 (I) IN GENERAL.—As the Admin-
2 istrator determines appropriate, a
3 demonstration project approved for in-
4 clusion in the assessment program
5 may be conducted for a period exceed-
6 ing 5 years.

7 (II) PROPOSALS.—In order to be
8 considered for an extension under this
9 clause, the owner or operator of a
10 demonstration project shall submit to
11 the Administrator a proposal explain-
12 ing the need for the extension.

13 (III) NOTICE AND PUBLIC COM-
14 MENT.—The Administrator shall—

15 (aa) publish in the Federal
16 Register a notice summarizing
17 each proposal received under sub-
18 clause (II);

19 (bb) invite public comments
20 regarding each such proposal;
21 and

22 (cc) consider such comments
23 in determining whether to au-
24 thorize any extension for a dem-

1 onstration project under this
2 clause.

3 (B) NEW DEMONSTRATION PROJECTS.—

4 Any new demonstration project approved for in-
5 clusion in the assessment program shall—

6 (i) be designed and managed in part-
7 nership with—

8 (I) a land-grant college or univer-
9 sity (as defined in section 1404 of the
10 National Agricultural Research, Ex-
11 tension, and Teaching Policy Act of
12 1977 (7 U.S.C. 3103));

13 (II) a 1994 Institution (as de-
14 fined in section 532 of the Equity in
15 Educational Land-Grant Status Act
16 of 1994 (7 U.S.C. 301 note; Public
17 Law 103–382)); or

18 (III) a sea grant college (as de-
19 fined in section 203 of the National
20 Sea Grant College Program Act (33
21 U.S.C. 1122)); and

22 (ii) consult and coordinate with the
23 relevant Regional Fishery Management
24 Council.

1 (6) PRIORITY CONSIDERATION.—In considering
2 applications for demonstration projects under this
3 section, the Administrator shall give priority consid-
4 eration to demonstration projects owned or operated
5 by—

6 (A) veterans, or entities in which a veteran
7 or veterans have a majority ownership interest;

8 (B) members of a community with environ-
9 mental justice concerns or underserved commu-
10 nity, or entities in which a member or members
11 of a community with environmental justice con-
12 cerns or underserved community have a major-
13 ity ownership interest;

14 (C) entities that primarily serve or employ
15 members of a community with environmental
16 justice concerns or underserved community; or

17 (D) applicants who can demonstrate that
18 the demonstration project will directly benefit
19 individuals who are already participating in the
20 agricultural, wild-caught fishery, or offshore
21 aquaculture industries who have been negatively
22 impacted by the COVID–19 pandemic, natural
23 disasters, or disaster declarations.

24 (7) PUBLIC COMMENTS.—In considering appli-
25 cations for demonstration projects under this sec-

1 tion, the Administrator shall consider and weigh the
2 public comments received pursuant to paragraph
3 (2)(B).

4 (c) AQUACULTURE OPPORTUNITY AREAS.—The Ad-
5 ministrator may elect to site a demonstration project ap-
6 proved for inclusion in the assessment program in an
7 Aquaculture Opportunity Area identified by the Secretary
8 of Commerce in accordance with section 7 of Executive
9 Order 13921 (16 U.S.C. 1801; relating to promoting
10 American seafood competitiveness and economic growth).

11 (d) PERMITS.—

12 (1) FEDERAL AGENCIES.—The owner or oper-
13 ator of each demonstration project approved for in-
14 clusion in the assessment program shall obtain all
15 necessary and relevant permits issued by Federal
16 agencies to conduct activities under the project.

17 (2) NATIONAL OCEANIC AND ATMOSPHERIC AD-
18 MINISTRATION.—After the owner or operator of a
19 demonstration project obtains the permits described
20 in paragraph (1), the Administrator shall issue the
21 appropriate permits to allow the project to conduct
22 offshore aquaculture activities in accordance with
23 this Act.

24 (e) REPORTING BY ASSESSMENT PROGRAM PARTICI-
25 PANTS.—

1 (1) IN GENERAL.—The owner or operator of
2 each demonstration project approved for inclusion in
3 the assessment program shall submit such informa-
4 tion, at such time, in such place, and in such man-
5 ner as the Administrator determines appropriate, in-
6 cluding the following:

7 (A) Production data.

8 (B) Information on interactions with wild
9 species, mitigation measures taken, and the re-
10 sults of such interactions and measures.

11 (C) Information on technology and oper-
12 ational practices used to measure and mon-
13 itor—

14 (i) effluent;

15 (ii) integrity of cage materials and
16 other gear; and

17 (iii) health of the cultivated species.

18 (D) Information on environmental and eco-
19 system impacts.

20 (E) Data necessary for the Ocean Studies
21 Board of the National Academies of Sciences,
22 Engineering, and Medicine to complete the
23 study required by section 3.

1 (F) Information necessary for the Admin-
2 istrator to exercise the authority of the Admin-
3 istrator under subsection (f).

4 (G) Owner, operator, and employee demo-
5 graphic data and other relevant data as deter-
6 mined by the Administrator for purposes of as-
7 sassing—

8 (i) the direct benefits of the project to
9 communities with environmental justice
10 concerns; and

11 (ii) the economic and social benefits
12 for nearby coastal communities.

13 (H) Information on navigation and safety
14 impacts to existing ocean users.

15 (I) Such additional information as the Ad-
16 ministrator requires to fulfill the goals and ob-
17 jectives of the assessment program.

18 (2) TECHNICAL ASSISTANCE.—The Adminis-
19 trator shall, upon request, provide technical assist-
20 ance to owners and operators of demonstration
21 projects approved for inclusion in the assessment
22 program to comply with the reporting requirements
23 of this subsection.

24 (3) EMERGENCY REPORTING.—The Adminis-
25 trator shall establish an emergency reporting process

1 for each owner or operator of a demonstration
2 project approved for inclusion in the assessment pro-
3 gram to immediately report suspected or known
4 interactions between project facilities or vessels and
5 protected wild species.

6 (f) AUTHORITY TO MODIFY OR TERMINATE PARTICI-
7 PATION OF DEMONSTRATION PROJECTS AND ORDER RE-
8 MOVAL OF FACILITIES.—The Administrator may require
9 modifications to a demonstration project approved for in-
10 clusion in the assessment program, terminate the partici-
11 pation of such a project in such program, and order the
12 removal of an offshore aquaculture facility authorized to
13 operate under this section if—

14 (1) the project incurs an incident involving a
15 death or serious personal injury and the Adminis-
16 trator determines that project operator negligence
17 was the cause or a contributing factor to such inci-
18 dent;

19 (2) operation of the project results in a viola-
20 tion of—

21 (A) the Endangered Species Act of 1973
22 (16 U.S.C. 1531 et seq.); or

23 (B) the Marine Mammal Protection Act of
24 1972 (16 U.S.C. 1361 et seq.);

1 (3) the owner or operator of the project fails to
2 comply with all of the terms and conditions of—

3 (A) the approval of the project; or

4 (B) modifications required by the Adminis-
5 trator under this subsection; or

6 (4) the Administrator determines that contin-
7 ued participation in the assessment program by the
8 project would be unsafe or result in unacceptable
9 negative impacts to—

10 (A) the marine environment;

11 (B) nearby communities; or

12 (C) other users of the water body in which
13 the project is located.

14 (g) INTERIM FINAL RULE.—The Administrator may
15 issue an interim final rule to implement the requirements
16 under this section.

17 (h) REPORTS.—

18 (1) ANNUAL REPORTS.—

19 (A) IN GENERAL.—Not later than 2 years
20 after the date on which the Administrator es-
21 tablishes the assessment program, and annually
22 thereafter for the duration of the assessment
23 program, the Administrator shall publish, make
24 available to the public, and submit to offshore

1 aquaculture stakeholders a report that includes
2 the following:

3 (i) A description of each project ap-
4 proved for inclusion in the assessment pro-
5 gram.

6 (ii) In the first report, documentation
7 supporting selection of each such project.

8 (iii) A summary of the information
9 submitted to the Administrator under sub-
10 section (e) for each such project.

11 (iv) A description of the progress
12 made toward meeting the objectives de-
13 scribed in subsection (a).

14 (B) DEFINITION OF OFFSHORE AQUA-
15 CULTURE STAKEHOLDERS.—In this paragraph,
16 the term “offshore aquaculture stakeholders”
17 includes—

18 (i) each specially affected adjacent
19 coastal jurisdiction; and

20 (ii) each affected—

21 (I) Tribal or Indigenous commu-
22 nity;

23 (II) regional fishery management
24 council;

- 1 (III) interstate fisheries commis-
2 sion;
3 (IV) conservation organization;
4 and
5 (V) fisheries association.

6 (2) FINAL REPORT.—

7 (A) IN GENERAL.—Not later than 1 year
8 after the date of the completion of the assess-
9 ment program, the Administrator shall submit
10 to the appropriate committees of Congress a re-
11 port describing the results of the assessment
12 program.

13 (B) ELEMENTS.—The report required by
14 subparagraph (A) shall include the following:

15 (i) An evaluation based on data from
16 the assessment program of the opportuni-
17 ties and risks of offshore aquaculture re-
18 garding—

19 (I) marine ecosystems;

20 (II) other users of the exclusive
21 economic zone;

22 (III) other ecosystems goods and
23 services;

24 (IV) social and economic impacts
25 to nearby communities, including cu-

1 mulative impacts and impacts on com-
2 munities with environmental justice
3 concerns, low-income communities,
4 and communities of color;

5 (V) best practices to mitigate
6 risks; and

7 (VI) best practices to prevent dis-
8 parate impacts.

9 (ii) Such recommendations as the Ad-
10 ministrator may have for legislative or ad-
11 ministrative action and the establishment
12 of performance standards for offshore
13 aquaculture siting and operations that—

14 (I) would minimize risks posed
15 by offshore aquaculture operations to
16 marine ecosystems;

17 (II) would enhance the safe oper-
18 ation of offshore aquaculture facilities,
19 service vessels, and associated activi-
20 ties;

21 (III) would prevent displacement
22 of existing uses and users; and

23 (IV) are technically, operation-
24 ally, and economically feasible.

1 **SEC. 5. AQUACULTURE CENTERS OF EXCELLENCE.**

2 (a) AQUACULTURE CURRICULUM GRANTS.—

3 (1) IN GENERAL.—Not later than 1 year after
4 the date of the enactment of this Act, the Adminis-
5 trator shall establish a program to award grants to
6 covered institutions to assist in establishing or en-
7 hancing an aquaculture curriculum for under-
8 graduate or graduate courses of study at such cov-
9 ered institutions.

10 (2) AQUACULTURE CENTERS OF EXCEL-
11 LENCE.—A covered institution that receives a grant
12 under this section shall be known as an “Aqua-
13 culture Center of Excellence”.

14 (3) APPLICATIONS.—To be eligible to receive a
15 grant under this section, a covered institution shall
16 submit to the Administrator an application in such
17 form, at such time, and containing such information
18 as the Administrator determines appropriate, includ-
19 ing any plans to partner with 1 or more other insti-
20 tutions of higher education as authorized under
21 paragraph (5).

22 (4) USE OF GRANT AMOUNTS.—

23 (A) IN GENERAL.—A covered institution
24 receiving a grant under this section shall use
25 the grant amounts to establish or enhance an
26 aquaculture curriculum for undergraduate or

1 graduate courses of study that includes the fol-
2 lowing:

3 (i) Training in various skill sets need-
4 ed by successful aquaculture entre-
5 preneurs, including—

6 (I) business management, stra-
7 tegic planning, business plan develop-
8 ment, capital financing and fund-
9 raising, financial management and ac-
10 counting, market analysis and com-
11 petitive analysis, and market entry
12 and strategy execution; and

13 (II) any other skill sets specific
14 to the needs of the student population
15 and the surrounding community, in-
16 cluding with respect to social and en-
17 vironmental sustainability, as deter-
18 mined by the institution.

19 (ii) Natural and social science re-
20 search programs in aquaculture and nat-
21 ural fisheries, including offshore aqua-
22 culture.

23 (iii) Development of extension pro-
24 grams (or cooperation with existing exten-
25 sion programs) that—

1 (I) educate and engage commu-
2 nity members, including elementary
3 and secondary school students, on
4 aquaculture and aquaculture career
5 pathways; and

6 (II) transfer newly developed
7 techniques and research information
8 developed or collated at the covered
9 institution to aquaculture practi-
10 tioners.

11 (iv) Career development, such as the
12 establishment of cooperatives, apprentice-
13 ships, mentorships, accelerators, or grant
14 competitions.

15 (B) LIMITATIONS ON USE OF GRANT
16 AMOUNTS.—Amounts from a grant awarded
17 under this section may be used only for ex-
18 penses directly related to the implementation of
19 the curriculum or activities authorized under
20 this section.

21 (5) PARTNERSHIPS.—In applying for grants
22 and carrying out activities with grant amounts
23 under this section, a covered institution may partner
24 with 1 or more other institutions of higher education
25 with established aquaculture programs, including in-

1 stitutions of higher education not otherwise eligible
2 for grants under this section, to facilitate the shar-
3 ing of resources and knowledge necessary for the de-
4 velopment or enhancement of aquaculture cur-
5 riculum at the covered institution.

6 (b) **AUTHORIZATION OF APPROPRIATIONS.**—There is
7 authorized to be appropriated to carry out this section
8 \$25,000,000 for each of fiscal years 2024 through 2027,
9 to remain available until expended.

10 **SEC. 6. REPORT BY GOVERNMENT ACCOUNTABILITY OF-**
11 **FICE.**

12 (a) **IN GENERAL.**—Not later than 2 years after the
13 date of the enactment of this Act, the Comptroller General
14 of the United States shall submit to the appropriate com-
15 mittees of Congress a report examining the permitting,
16 monitoring, and regulation of offshore aquaculture during
17 the 15-year period ending on such date of enactment.

18 (b) **BASES OF REPORT.**—The Comptroller General
19 shall base the report required by subsection (a) on avail-
20 able literature, case studies, and stakeholder input.

21 (c) **ELEMENTS OF REPORT.**—The report required by
22 subsection (a) shall—

23 (1) assess the feasibility and potential positive
24 and negative implications of designating a lead agen-

1 cy to issue offshore aquaculture permits in a timely
2 manner;

3 (2) identify lessons learned during the period
4 described in subsection (a) with respect to—

5 (A) the implications of offshore aqua-
6 culture type, location, and regulatory frame-
7 work on the success of offshore aquaculture
8 projects;

9 (B) the degree of involvement of coastal or
10 adjacent States, Tribal groups, underserved
11 communities, or communities with environ-
12 mental justice concerns in consultation, plan-
13 ning, or operations of offshore aquaculture op-
14 erations;

15 (C) safety protocols and risk mitigation
16 measures for the permit and oversight processes
17 for offshore aquaculture, including—

18 (i) escape prevention measures;

19 (ii) emergency event response plan-
20 ning;

21 (iii) compliance monitoring, particu-
22 larly in remote locations;

23 (iv) compliance with Federal laws;

24 (v) reporting mechanisms to appro-
25 priate Federal authorities; and

1 (vi) vessel navigation aids to ensure
2 navigational safety;

3 (D) the effect of incentives to reduce ad-
4 verse effects or disparate impacts from offshore
5 aquaculture operations;

6 (E) building and optimizing synergies be-
7 tween offshore aquaculture and wild-caught
8 fishing activities, or offshore, nearshore, and
9 onshore aquaculture activities, including market
10 development, increasing seafood consumption,
11 and shared infrastructure;

12 (F) the environmental effects of offshore
13 aquaculture operations, including mechanisms
14 to prevent harm to the environment, wildlife, or
15 human well-being;

16 (G) in consultation with the Council Co-
17 ordination Committee, the net economic and so-
18 cial benefits of offshore aquaculture projects,
19 particularly for nearby communities, including
20 underserved communities and communities with
21 environmental justice concerns, based on project
22 size, regulatory structures, and financing struc-
23 tures;

24 (H) the impact of introducing offshore
25 aquaculture products to the marketplace on

1 supply and demand for wild-capture fisheries
2 products, and methods for ensuring resiliency
3 and growth for both offshore aquaculture and
4 wild-capture fisheries products;

5 (I) mechanisms to enhance capital invest-
6 ment, workforce development, and equitable op-
7 portunity requirements or assistance programs
8 in the permit process for offshore aquaculture,
9 or to diversify permit applicants;

10 (J) outstanding needs for continued re-
11 search, development, education activities, pro-
12 grams, and funding regarding offshore aqua-
13 culture projects and development of the domes-
14 tic workforce and entrepreneurship related to
15 offshore aquaculture;

16 (K) the economic potential for both large-
17 and small-scale offshore aquaculture operations
18 to generate a positive return on investment
19 under various regulatory and financing struc-
20 tures;

21 (L) the applicability and sufficiency of ex-
22 isting regulatory systems for offshore aqua-
23 culture; and

24 (M) existing local, State, Federal, and for-
25 eign regulatory standards that may serve as

1 models for efficient and effective regulation of
2 offshore aquaculture; and

3 (3) include such recommendations as the Comp-
4 troller General may have with respect to future off-
5 shore aquaculture operations, including with respect
6 to—

7 (A) regulatory processes necessary for per-
8 mitting, monitoring, and oversight, including
9 processes and techniques related to siting, de-
10 ployment, operations, and decommissioning;

11 (B) potential safeguards, data collection,
12 or monitoring required to minimize disparate
13 impacts on communities with environmental
14 justice concerns, local economies, marine envi-
15 ronments, and existing domestic economic sec-
16 tors;

17 (C) mechanisms for optimizing the coordi-
18 nation among Federal agencies with a role in
19 permitting or supporting offshore aquaculture
20 without compromising the goals of such permit-
21 ting;

22 (D) methods for effectively involving stake-
23 holders, including—

24 (i) specially affected adjacent coastal
25 jurisdictions;

- 1 (ii) local communities;
- 2 (iii) regional offshore waters users
3 and management groups, including re-
4 gional fishery management councils; and
- 5 (iv) users of local, State, Tribal, and
6 Federal waters and coastal resources, in-
7 cluding underserved communities and com-
8 munities with environmental justice con-
9 cerns;
- 10 (E) best practices for incorporating local
11 knowledge, including from Tribal or Indigenous
12 communities;
- 13 (F) capabilities of Federal agencies that
14 are necessary for effective regulation of the off-
15 shore aquaculture sector; and
- 16 (G) how creating private rights of action or
17 waiving sovereign immunity would facilitate or
18 hinder the development of offshore aquaculture
19 projects and the acceptance of such projects by
20 nearshore and offshore waters user groups and
21 coastal communities.

22 **SEC. 7. RULE OF CONSTRUCTION.**

23 Any requirement in this Act to identify or consider
24 an impact or effect on human health, the environment,
25 or the climate shall be construed as including a require-

1 ment to make such identification or consideration while
2 taking into account—

3 (1) the cumulative impact of such impact or ef-
4 fect in the context of all sources of emissions, dis-
5 charges, or releases from any source, past, present,
6 or in the reasonably foreseeable future, on the af-
7 fected environment and population;

8 (2) any characteristics of such environment and
9 population that may heighten vulnerability to envi-
10 ronmental pollution and related health risks; and

11 (3) any action or practice that, even if appear-
12 ing neutral, has the effect of subjecting individuals
13 to discrimination on the basis of race, color, or na-
14 tional origin.

○