

117TH CONGRESS
2D SESSION

H. R. 9477

To authorize studies and pilot programs related to the development and production of aquaculture in the exclusive economic zone of the United States, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

DECEMBER 8, 2022

Mr. LOWENTHAL (for himself, Ms. MACE, Ms. PINGREE, and Ms. BROWNLEY) introduced the following bill; which was referred to the Committee on Natural Resources, and in addition to the Committee on Education and Labor, 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 authorize studies and pilot programs related to the development and production of aquaculture in the exclusive economic zone of the United States, 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,*

3 **SECTION 1. SHORT TITLE.**

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

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

3 (1) **ADJACENT COASTAL JURISDICTION.**—The
4 term “adjacent coastal jurisdiction” means with re-
5 spect to any activity proposed, conducted, or ap-
6 proved by the Administrator under section 5(a), any
7 coastal State land—

8 (A) that is used, or is scheduled to be
9 used, as a support base for such activity; or

10 (B) in which there is a reasonable prob-
11 ability of significant effect on land or water
12 uses from such activity.

13 (2) **ADMINISTRATOR.**—The term “Adminis-
14 trator” means the Administrator of the National
15 Oceanographic and Atmospheric Administration.

16 (3) **APPROPRIATE COMMITTEES OF CON-**
17 **GRESS.**—The term “appropriate committees of Con-
18 gress” means the Committees on—

19 (A) Natural Resources of the House of
20 Representatives;

21 (B) Agriculture of the House of Represent-
22 atives;

23 (C) Transportation and Infrastructure of
24 the House of Representatives;

25 (D) Commerce, Science, and Transpor-
26 tation of the Senate;

1 (E) Environment and Public Works of the
2 Senate; and

3 (F) Agriculture, Nutrition, and Forestry of
4 the Senate.

5 (4) ENVIRONMENTAL JUSTICE COMMUNITY.—

6 The term “environmental justice community” means
7 a community with significant representation of any
8 of the following:

9 (A) Individuals who reside in a census
10 block group in which 30-percent or more of the
11 population are individuals with an annual
12 household income that does not exceed the
13 greater of—

14 (i) an amount equal to 80-percent of
15 the median income of the area in which the
16 household is located, as reported by the
17 Secretary of Housing and Urban Develop-
18 ment; or

19 (ii) 200-percent of the Federal poverty
20 line.

21 (B) Individuals who reside in a geographi-
22 cally distinct area in which the population of
23 any of the following categories of individuals is
24 higher than the average population of that cat-

1 category for the State in which the community is
2 located:

- 3 (i) Black.
- 4 (ii) African American.
- 5 (iii) Asian.
- 6 (iv) Pacific Islander.
- 7 (v) Other non-White race.
- 8 (vi) Hispanic.
- 9 (vii) Latino.
- 10 (viii) Linguistically isolated.

11 (C) Tribal or Indigenous communities.

12 (5) ESCAPE.—The term “escape” means the es-
13 cape of juvenile- or adult-farmed organisms, viable
14 gametes, or fertilized eggs spawned by farmed orga-
15 nisms from aquaculture facilities.

16 (6) EXCLUSIVE ECONOMIC ZONE.—The term
17 “exclusive economic zone” has the meaning given
18 such term in section 3(11) of the Magnuson Stevens
19 Fishery Conservation and Management Act (16
20 U.S.C. 1802(11)).

21 (7) INDIAN TRIBE.—The term “Indian Tribe”
22 has the meaning given such term in section 4 of the
23 Indian Self-Determination and Education Assistance
24 Act (25 U.S.C. 5304).

1 (8) OFFSHORE AQUACULTURE.—The term “off-
2 shore aquaculture” means aquaculture conducted in
3 the exclusive economic zone.

4 (9) PILOT PROJECT.—The term “pilot project”
5 means an aquaculture project approved under sec-
6 tion 5.

7 (10) STATE.—The term “State” means each of
8 the several States, the District of Columbia, each
9 commonwealth, territory, or possession of the United
10 States, and each Indian Tribe.

11 (11) TRIBAL OR INDIGENOUS COMMUNITY.—
12 The term “Tribal or Indigenous community” means
13 a population of people who are—

14 (A) enrolled members of an Indian Tribe;

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

17 (C) members of any other community of
18 Indigenous people located in a State.

19 (12) UNDERSERVED COMMUNITIES.—

20 (A) IN GENERAL.—The term “underserved
21 communities” means women and individuals be-
22 longing to communities that have been denied
23 consistent and systematic fair, just, and impar-
24 tial treatment and have been systematically de-
25 nied a full opportunity to participate in all as-

1 pects of economic, social, and civic life, includ-
2 ing Black, Latino, Indigenous and Native
3 American persons, Asian Americans and Pacific
4 Islanders and other persons of color.

5 (B) INCLUSION.—In the context of the
6 aquaculture industry, the term “underserved
7 communities”, within fishing communities, may
8 include—

9 (i) subsistence fishery participants
10 and their dependents;

11 (ii) fishing vessel crews, and fish proc-
12 essor and distribution workers; and

13 (iii) territorial fishing communities
14 (including those in American Samoa,
15 Guam, the Commonwealth of the Northern
16 Mariana Islands, Puerto Rico, and the
17 United States Virgin Islands).

18 (13) VETERAN.—The term “veteran” has the
19 meaning given such term in section 101 of title 38,
20 United States Code.

21 **SEC. 3. GAO STUDY.**

22 (a) IN GENERAL.—Not later than 2 years after the
23 date of the enactment of this section, the Comptroller
24 General shall submit a report to the appropriate commit-
25 tees of Congress examining aquaculture permitting, moni-

1 toring, and regulation during the 15-year period ending
2 on the date of enactment of this section based on the avail-
3 able literature, case studies, and stakeholder input.

4 (b) CONTENTS OF STUDY.—The study required
5 under subsection (a) shall—

6 (1) consider the feasibility and potential posi-
7 tive and negative implications of designating a lead
8 agency to issue aquaculture permits in a timely
9 manner;

10 (2) identify lessons learned during such period
11 with respect to—

12 (A) the implications of aquaculture type,
13 location, and regulatory framework on project
14 success;

15 (B) the degree of involvement of coastal or
16 adjacent States, Tribal groups, underserved
17 communities, or environmental justice commu-
18 nities in consultation, planning, or operations of
19 such aquaculture operations;

20 (C) safety protocols and risk mitigation
21 measures for the permit and oversight proc-
22 esses, including—

23 (i) escape prevention measures;

24 (ii) emergency event response plan-
25 ning;

1 (iii) compliance monitoring, particu-
2 larly in remote locations;

3 (iv) compliance with Federal laws;

4 (v) reporting mechanisms to appro-
5 priate Federal authorities, and

6 (vi) vessel navigation aids to ensure
7 navigational safety;

8 (D) the effect of incentives to reduce ad-
9 verse effects or disparate impacts from aqua-
10 culture operations;

11 (E) building and optimizing synergies be-
12 tween aquaculture and wild-caught fishing ac-
13 tivities, or offshore, nearshore, and onshore
14 aquaculture activities, including market devel-
15 opment, increasing seafood consumption, and
16 shared infrastructure;

17 (F) the environmental effects of marine
18 aquaculture operations, including mechanisms
19 to prevent harm to the environment, wildlife, or
20 human well-being;

21 (G) net economic and social benefits of the
22 aquaculture projects, particularly for nearby
23 communities (including underserved and envi-
24 ronmental justice communities), based on

1 project size, regulatory structures, and financ-
2 ing structures;

3 (H) the impact of introducing aquaculture
4 products to the marketplace on supply and de-
5 mand for wild-capture fisheries products and
6 methods for ensuring resiliency and growth for
7 both aquaculture and wild-capture fisheries
8 products;

9 (I) mechanisms to enhance capital invest-
10 ment, workforce development, and equitable op-
11 portunity requirements or assistance programs
12 in the permit process, or to diversify permit ap-
13 plicants;

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

20 (K) the economic potential for both large-
21 and small-scale aquaculture operations to gen-
22 erate a positive return on investment under var-
23 ious regulatory and financing structures; and

24 (3) make recommendations with respect to fu-
25 ture offshore aquaculture operations, including—

1 (A) regulatory processes necessary for per-
2 mitting, monitoring, and oversight, including
3 processes and techniques related to siting, de-
4 ployment, operations, and decommissioning;

5 (B) potential safeguards, data collection,
6 or monitoring required to minimize disparate
7 impacts on environmental justice communities,
8 local economies, marine environments, and ex-
9 isting domestic economic sectors;

10 (C) mechanisms for optimizing the effi-
11 ciency and coordination among Federal agencies
12 with a role in permitting aquaculture in off-
13 shore waters without compromising the goals of
14 such permitting;

15 (D) methods for effectively involving stake-
16 holders, including—

17 (i) adjacent jurisdictions;

18 (ii) local communities;

19 (iii) regional offshore waters users
20 and management groups (including re-
21 gional fishery management councils); and

22 (iv) users of local, State, and Federal
23 waters and coastal resources, including un-
24 derserved communities, and environmental
25 justice communities;

1 (E) best practices for incorporating local
2 knowledge, including from Tribal or Indigenous
3 communities;

4 (F) Federal agency capabilities that are
5 necessary for effective regulation of the sector;
6 and

7 (G) how creating private rights of action or
8 waiving sovereign immunity would facilitate or
9 hinder the development of offshore aquaculture
10 projects and their acceptance by nearshore and
11 offshore waters user groups and coastal com-
12 munities.

13 **SEC. 4. STUDY OF AQUACULTURE PERMITTING STAND-**
14 **ARDS.**

15 (a) **STUDY REQUIRED.**—Not later than 30 months
16 after the date of enactment of this Act, the Ocean Studies
17 Board of the National Academies of Sciences, Engineer-
18 ing, and Medicine shall complete a study to develop the
19 scientific basis for efficient and effective regulation of off-
20 shore aquaculture.

21 (b) **CONSIDERATIONS.**—The study required by sub-
22 section (a) shall, with respect to offshore aquaculture—

23 (1) identify—

24 (A) optimal methods of operation of aqua-
25 culture facilities to promote high yields and

1 limit adverse effects on the environment, wild-
2 life, and human well-being, including—

3 (i) considerations to guide siting deci-
4 sions of such facilities; and

5 (ii) appropriate stocking densities;

6 (B) a science-based definition of sustain-
7 able aquaculture feed or other inputs;

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

11 (i) the use of antibiotics and other
12 pharmaceuticals by aquaculture facilities,
13 including analyses necessary to establish
14 acceptable rates, impact levels, and risk
15 thresholds, such as organism antibiotic
16 consumption or metabolization versus ex-
17 cretion to the surrounding 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 wildlife entanglements;

24 (v) interbreeding or the spread of dis-
25 ease;

1 (vi) the source and sustainability of
2 brood stock for offshore aquaculture oper-
3 ations and impacts of hatcheries and
4 prestocking rearing operations that are
5 specific to offshore aquaculture;

6 (vii) large-scale cultivation of filter-
7 feed bivalve organisms and seaweed on the
8 marine food webs;

9 (viii) aquaculture facilities acting as
10 aggregating devices and increasing the vul-
11 nerability of wild fisheries and wildlife pop-
12 ulations to fishing or other sources of mor-
13 tality; and

14 (ix) the use of nonsustainable sources
15 of feed or other inputs;

16 (D) potential methods and technologies to
17 mitigate adverse effects, including those identi-
18 fied under subparagraph (C);

19 (E) potential conflicts and solutions to
20 mitigate such conflicts between offshore aqua-
21 culture facilities and other users of the offshore
22 environment;

23 (F) the types of data and qualitative infor-
24 mation necessary for the optimal operation of
25 such facilities and appropriate methods of pro-

1 curing such data information, including from
2 citizen science (as defined in section 402 of the
3 Crowdsourcing and Citizen Science Act (15
4 U.S.C. 3724) and the traditional aquaculture
5 knowledge of Tribal and Indigenous commu-
6 nities;

7 (G) the applicability and sufficiency of ex-
8 isting regulatory systems on offshore aqua-
9 culture;

10 (H) existing local, State, Federal, and for-
11 eign regulatory standards that may serve as
12 models for efficient and effective regulation of
13 offshore aquaculture; and

14 (I) the considerations necessary to account
15 for the effects of climate change predictive as-
16 sessments on the siting and operation of off-
17 shore aquaculture facilities; and

18 (2) provide legislative and regulatory rec-
19 ommendations with respect to—

20 (A) promoting the methods of operation
21 identified under paragraph (1)(A);

22 (B) mitigating adverse effects identified
23 under paragraph (2)(B);

24 (C) environmental standards, control rules,
25 or reference points that build upon the existing

1 public and private standards for aquaculture
2 sustainability; and

3 (D) ensuring that operators of offshore
4 aquaculture facilities adhere to international
5 standards for social responsibility, public
6 health, and equitable labor practices, including
7 with respect to sourcing inputs for such facili-
8 ties.

9 **SEC. 5. ASSESSMENT PROGRAM FOR OFFSHORE AQUA-**
10 **CULTURE.**

11 (a) ESTABLISHMENT.—Not later than 60 days after
12 the date of enactment of this Act, the Administrator shall
13 establish an assessment program to evaluate the following
14 with respect to offshore aquaculture:

15 (1) The ability of different commercial-scale fa-
16 cility designs and operational methods to—

17 (A) survive various atmospheric and ocean
18 conditions, including high wind speeds or high-
19 energy ocean conditions associated with severe
20 weather, without—

21 (i) allowing escapes of cultivated orga-
22 nisms;

23 (ii) loss of infrastructure; or

24 (iii) wildlife entanglement resulting
25 from loss or damaged infrastructure;

1 (B) prevent adverse wildlife impacts, in-
2 cluding entanglements of large whales, sea tur-
3 tles, and other species protected under the En-
4 dangered Species Act of 1973 (16 U.S.C. 1531
5 et seq.) and the Marine Mammal Protection Act
6 of 1972 (16 U.S.C. 1361 et seq.);

7 (C) prevent adverse impacts on the marine
8 environment, including impacts to habitat,
9 water chemistry, and wildlife; and

10 (D) avoid adverse impacts on navigation
11 and safety to existing ocean users due to aqua-
12 culture facilities, including requirements for op-
13 erations, navigation, and transit associated with
14 such facilities.

15 (2) The ability for different technologies to pro-
16 vide reliable and timely data on offshore aquaculture
17 facilities (including visual data and other relevant
18 data types) to enable the Administrator to mon-
19 itor—

20 (A) project compliance with the require-
21 ments of subsection (b);

22 (B) impacts on the marine environment;
23 and

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

1 (3) The relative risks, benefits, and cost of var-
2 ious types of aquaculture, including different species
3 of finfish in different geographies and under varying
4 climactic and ecological conditions.

5 (4) The development of performance standards
6 for offshore aquaculture operations.

7 (b) PILOT PROJECT SELECTION.—

8 (1) SOLICITATION.—The Administrator shall
9 solicit and accept applications for participation in
10 the assessment program from projects that would
11 advance the objectives of subsection (a), including—

12 (A) objective analyses of data from com-
13 mercial-scale and other demonstration projects
14 existing or carried out in offshore waters of the
15 United States or other countries within the past
16 15 years; or

17 (B) pilot projects proposed to be operated
18 in the exclusive economic zone.

19 (2) PUBLICATION.—The Administrator shall
20 publish in the Federal Register a notice summa-
21 rizing each application received under this section
22 and invite and consider public comments regarding
23 the pilot projects proposed under those applications
24 for their inclusion in the assessment program.

1 (3) DESIGNATION OF ADJACENT COASTAL JU-
2 RISDICTIONS.—The Administrator shall promulgate
3 a mechanism for identifying and designating, with
4 respect to each pilot project application received
5 under paragraph (1), the nearest adjacent coastal
6 jurisdiction or jurisdictions.

7 (4) NOTICE.—The Administrator shall provide
8 a copy of each pilot project application to each adja-
9 cent coastal jurisdiction designated under paragraph
10 (3).

11 (5) DENIAL AT THE REQUEST OF ADJACENT
12 COASTAL JURISDICTION.—If, in the 60-day period
13 after receiving notice of a pilot project application
14 under paragraph (4), an adjacent coastal jurisdiction
15 requests that the Secretary rejects such application,
16 the Secretary shall reject such application.

17 (6) PILOT PROJECT APPROVAL.—Not later than
18 1 year after the date of the enactment of this sec-
19 tion, the Administrator shall approve not less than
20 1 and not more than 4 applications for aquaculture
21 pilot projects that—

22 (A) cultivate species that pose minimal
23 threat of harm to wildlife and the ecosystem in
24 which the project is located;

1 (B) incorporate design and operational
2 characteristics that minimize the risk of escape,
3 wildlife entanglement, and adverse pollution im-
4 pacts;

5 (C) have developed and are able to imple-
6 ment an escape response and infrastructure loss
7 or damage plan that minimizes the impact of
8 any escapes or infrastructure loss or damage on
9 the marine environment and on other uses of
10 the water body in which the project is located;

11 (D) comply with all applicable require-
12 ments of the Clean Water Act (33 U.S.C. 1851
13 et seq.), the Endangered Species Act of 1973
14 (16 U.S.C. 1531 et seq.), the Marine Mammal
15 Protection Act of 1972 (16 U.S.C. 1361 et
16 seq.), and the National Environmental Policy
17 Act of 1969 (42 U.S.C. 4321 et seq.);

18 (E) are compatible with, and prevent or
19 minimize displacement of, existing uses and
20 users of the marine environment in which it is
21 located;

22 (F) will conform to best practices to avoid
23 or minimize the use of antibiotics and other
24 pharmaceuticals and minimize the release of
25 such pharmaceuticals into the environment; and

1 (G) will be conducted over a period of 5
2 years.

3 (7) AQUACULTURE OPPORTUNITY AREA.—The
4 Administrator may elect to site a project approved
5 under this section in an Aquaculture Opportunity
6 Area.

7 (8) PERMIT.—The Administrator shall issue the
8 appropriate permits to allow each pilot project ap-
9 proved under paragraph (6) to conduct offshore
10 aquaculture activities in the exclusive economic zone
11 in accordance with this Act.

12 (c) PRIORITY CONSIDERATION.—In considering pilot
13 project applications, the Administrator shall give priority
14 consideration to pilot projects owned or operated by—

15 (1) veterans, or entities in which a veteran or
16 veterans have a majority ownership interest;

17 (2) members of an environmental justice com-
18 munity or underserved community, or entities in
19 which a member or members of an environmental
20 justice community or underserved community have a
21 majority ownership interest;

22 (3) entities that primarily serve or employ
23 members of an environmental justice community or
24 underserved community; or

1 (4) applicants who can demonstrate that the
2 pilot project will directly benefit individuals who are
3 already participating in the agricultural, wild-caught
4 fishery, and aquaculture industries who have been
5 negatively impacted by the COVID–19 pandemic,
6 natural disasters, or disaster declarations.

7 (d) INTERIM FINAL RULE.—The Administrator may
8 make an interim final rule to implement the requirements
9 under this section.

10 (e) ASSESSMENT PROGRAM PARTICIPANT REPORT-
11 ING.—

12 (1) DATA AND MONITORING.—The owner or op-
13 erator of each commercial-scale demonstration
14 project or pilot project approved for inclusion in the
15 assessment program under this section shall submit
16 such documentation, in such time, place, and man-
17 ner as the Administrator determines appropriate, in-
18 cluding—

19 (A) production data;

20 (B) interactions with wild species, mitiga-
21 tion measures taken, and the result;

22 (C) technology and operational practices
23 used to measure and monitor effluent, integrity
24 of cage materials and other gear, and health of
25 the cultivated species;

1 (D) environmental and ecosystem impacts;

2 (E) data necessary to assess the consider-
3 ations described in section 4(b);

4 (F) information necessary for the Sec-
5 retary to make a revocation or modification de-
6 termination under subsection (f);

7 (G) owner, operator, and employee demo-
8 graphic data and other relevant data as deter-
9 mined by the Administrator for purposes of as-
10 sessing the pilot project's direct benefits to en-
11 vironmental justice communities and the eco-
12 nomic and social benefits for nearby coastal
13 communities;

14 (H) navigation and safety impacts to exist-
15 ing ocean users; and

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

19 (2) TECHNICAL ASSISTANCE.—The Adminis-
20 trator shall, upon request, provide technical assist-
21 ance to owners and operators of commercial-scale
22 demonstration projects and pilot projects to comply
23 with the reporting requirements of this section.

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

1 for each owner or operator of an aquaculture pilot
2 project approved under this section to immediately
3 report suspected or known interactions between pilot
4 project facilities or vessels and protected wild spe-
5 cies.

6 (f) AUTHORITY TO REVOKE OR MODIFY PILOT
7 PROJECT PARTICIPATION.—The Administrator may re-
8 quire modifications to, or terminate pilot project partici-
9 tion under this section, and order the removal of an off-
10 shore aquaculture facility authorized to operate under this
11 section if—

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

17 (2) operation of the project results in a viola-
18 tion of the Endangered Species Act of 1973 (16
19 U.S.C. 1531 et seq.) or the Marine Mammal Protec-
20 tion Act of 1972 (16 U.S.C. 1361 et seq.);

21 (3) the pilot project owner or operator fails to
22 comply with all of the terms and conditions of the
23 pilot program approval or modifications required by
24 the Administrator under this subsection; or

1 (4) the Administrator determines that contin-
2 ued participation in the pilot program by the project
3 would be unsafe or result in unacceptable negative
4 impacts to the marine environment or nearby com-
5 munities, or other users of the water body in which
6 the project is located.

7 (g) REPORTS.—

8 (1) ANNUAL REPORTS.—Not later than 2 years
9 after the date of enactment of this Act and annually
10 thereafter for the duration of the assessment pro-
11 gram, the Administrator shall publish, make avail-
12 able to the public, and submit to aquaculture stake-
13 holders (including each adjacent coastal jurisdiction
14 and each affected Tribal or Indigenous community,
15 regional fishery management council, interstate fish-
16 eries commission, conservation organization, and
17 fisheries association) a report that includes the fol-
18 lowing information:

19 (A) A description of each approved pilot
20 project.

21 (B) In the first report, documentation sup-
22 porting selection of each approved pilot project.

23 (C) A summary of the information re-
24 ported to the Administrator under subsection
25 (e) for each approved pilot project.

1 (D) a description of the progress made to-
2 ward meeting the goals described in subsection
3 (a).

4 (2) FINAL REPORT.—Not later than 1 year
5 after the date of the completion of the assessment
6 program, the Administrator shall submit to the ap-
7 propriate committees of Congress a report describing
8 the results of the pilot program that includes the fol-
9 lowing information:

10 (A) An evaluation based on data from the
11 assessment program of the opportunities and
12 risks of offshore aquaculture regarding—

13 (i) marine ecosystems;

14 (ii) other users of the exclusive eco-
15 nomic zone;

16 (iii) other ecosystems goods and serv-
17 ices;

18 (iv) social and economic impacts to
19 nearby communities, including cumulative
20 impacts and impacts on environmental jus-
21 tice communities, low-income communities,
22 and communities of color;

23 (v) best practices to mitigate risks;
24 and

1 (vi) best practices to prevent disparate
2 impacts.

3 (B) Any recommendations of the Adminis-
4 trator for amendments to statutes or regula-
5 tions and the establishment of performance
6 standards for offshore aquaculture siting and
7 operations, that—

8 (i) would minimize risks posed by
9 aquaculture operations to marine eco-
10 systems;

11 (ii) would enhance the safe operation
12 of aquaculture facilities, service vessels,
13 and associated activities;

14 (iii) prevent displacement of existing
15 uses and users; and

16 (iv) are technically, operationally, and
17 economically feasible.

18 **SEC. 6. AQUACULTURE CENTERS OF EXCELLENCE.**

19 (a) MINORITY AQUACULTURE RESEARCH AND EN-
20 TREPRENEURSHIP GRANTS.—

21 (1) IN GENERAL.—Not later than 1 year after
22 the date of the enactment of this section, the Admin-
23 istrator shall establish the “Aquaculture Centers of
24 Excellence” program to award grants to covered in-
25 stitutions to assist in establishing or enhancing an

1 aquaculture curriculum for undergraduate or grad-
2 uate courses of study at such covered institutions.

3 (2) APPLICATIONS.—To be eligible for a grant
4 under this section, a covered institution shall submit
5 to the Administrator an application in such form, at
6 such time, and containing such information as the
7 Administrator determines appropriate, including any
8 plans to partner with other institutions of higher
9 education pursuant to paragraph (4).

10 (3) GRANT USES.—A covered institution receiv-
11 ing a grant under this section—

12 (A) shall use such grant funds to establish
13 or enhance an aquaculture curriculum for un-
14 dergraduate or graduate studies that includes—

15 (i) training in various skill sets needed
16 by successful aquaculture entrepreneurs,
17 including—

18 (I) business management, stra-
19 tegic planning, business plan develop-
20 ment, capital financing and fund-
21 raising, financial management and ac-
22 counting, market analysis and com-
23 petitive analysis, and market entry
24 and strategy execution; and

- 1 (II) any other skill sets specific
2 to the needs of the student population
3 and the surrounding community, in-
4 cluding social and environmental sus-
5 tainability, as determined by the insti-
6 tution;
- 7 (ii) natural and social science research
8 programs in aquaculture and natural fish-
9 eries, including offshore aquaculture;
- 10 (iii) development of extension pro-
11 grams (or cooperation with existing exten-
12 sion programs) that educate and engage
13 community members, including elementary
14 and secondary school students, on aqua-
15 culture and aquaculture career pathways
16 that transfer newly developed techniques
17 and research information developed or col-
18 lated at the covered institution to aqua-
19 culture practitioners; and
- 20 (iv) career development, such as the
21 establishment of cooperatives, apprentice-
22 ships, mentorships, accelerators, or grant
23 competitions; and
- 24 (B) may only use such grant funds for ex-
25 penses directly related to the implementation of

1 the curriculum or activities authorized by this
2 section.

3 (4) PARTNERSHIPS.—In applying for and car-
4 rying out activities with grants under this section, a
5 covered institution may partner with other institu-
6 tions of higher education with established aqua-
7 culture programs, including institutions of higher
8 education not otherwise eligible for grants under this
9 section, to facilitate the sharing of resources and
10 knowledge necessary for aquaculture curriculum de-
11 velopment or enhancement at the covered institution.

12 (5) GRANT LIMITATIONS.—A grant awarded
13 under this section may only be used for expenses di-
14 rectly related to the implementation of the cur-
15 riculum or activities authorized by this section.

16 (6) AUTHORIZATION OF APPROPRIATIONS.—
17 There is authorized to be appropriated to carry out
18 this section \$25,000,000 to remain available until
19 expended, for each of fiscal years 2023 through
20 2027.

21 (b) DEFINITIONS.—In this section:

22 (1) COVERED INSTITUTION.—The term “cov-
23 ered institution” means—

24 (A) a minority-serving institution;

1 (B) a historically Black college or univer-
2 sity; or

3 (C) a Tribal College or University.

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

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

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

18 (5) TRIBAL COLLEGE OR UNIVERSITY.—The
19 term “Tribal College or University” means and in-
20 stitution described in section 316(b)(3) of the High-
21 er Education Act of 1965 (20 U.S.C. 1059e(b)) that
22 is chartered under the sovereign authority of its re-
23 spective Tribal Nation or by the Federal Govern-
24 ment.

1 **SEC. 7. RULE OF CONSTRUCTION.**

2 Any requirement in this Act to identify or consider
3 an impact or effect on human health, the environment,
4 or the climate shall include a requirement to make such
5 identification or consideration while taking into account—

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

11 (2) any characteristics of such environment and
12 population that may heighten vulnerability to envi-
13 ronmental pollution and related health risks; and

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

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