

THIS IS A DRAFT DOCUMENT OF THE NSTC SUBCOMMITTEE ON AQUACULTURE PUBLIC COMMENTS WILL BE ACCEPTED THRU APRIL 1, 2022

SUMMARY: The Subcommittee on Aquaculture (SCA) is seeking public comment on a draft outline of the Strategic Plan for Aquaculture Economic Development, and information on a planned update to the 1983 National Aquaculture Development Plan (NADP). Address all comments concerning the Economic Development Task Force Outline and topics to be covered in the NADP to:

- *Electronic Submissions:* Submit electronic public comments to AquacultureEcoDev@usda.gov; or
- *Mail:* Gabriela McMurtry, Attn: Aquaculture Economic Development Plan Comments, Office of Policy, F/AQ, 1315 East-West Highway, 14th Floor, Silver Spring, MD 20910.

The SCA is a statutory subcommittee that operated under the Committee on Environment of the National Science and Technology Council (NSTC) under the Office of Science and Technology Policy in the Executive Office of the President [National Aquaculture Act of 1980 (Pub. L. 96-362, 94 Stat. 1198, 16 U.S.C. 2801, et seq.) and the National Aquaculture Improvement Act of 1985 (Pub. L. 99-198, 99 Stat. 1641)]. The SCA established an Economic Development Task Force charged with developing a strategic plan to support a robust, resilient, and environmentally sustainable domestic aquaculture sector. The Plan seeks to support the viability and expansion of existing operations, encourage new entrants, and maximize the effectiveness of existing federal policies and programs while strengthening the public-private partnerships with federal stakeholders. This Task Force includes federal employees from the Department of Agriculture, Department of Commerce, Department of the Interior, the State Department, the Small Business Administration, and Environmental Protection Agency.

As described in the Federal Register notice, the strategic plans on science and regulatory efficiency are finalized, and additional work is being done by the SCA to develop similar analyses for aquaculture economic development. These three strategic plans will provide the majority of the updated NADP.

Outline for: Strategic Plan for Aquaculture Economic Development Task Force
February 7, 2022
OSTP POC: Deerin Babb-Brott

Page #	Contents
i	Outside Front Cover
ii	Inside Front Cover
iii	Contributors Page
iv	Table of Contents (Starting with Executive Summary)
v	Abbreviations and Acronyms
1	Executive Summary (<i>1 page</i>)
2	Introduction (<i>1 page</i>) The overarching vision is to create a robust, resilient, and environmentally sustainable domestic aquaculture sector. This Plan seeks to support the viability and expansion of existing operations, as well as encourage new entrants. We will maximize the effectiveness of existing federal policies and programs to achieve the goals outlined. Points of intersection with climate-smart food production, private-public partnerships, blue economy, community health, workforce development, working waterfronts, urban and rural development, and seafood supply chains (including wild-caught) highlight the value and opportunities of industry expansion. This is not a COVID-19 response plan, but will include lessons learned from the crisis to inform resilient economic development strategies to economic and environmental changes. This plan complements two other recent NSTC Strategic Plans focused on aquaculture - one to Improve Regulatory Efficiency and the other a National Strategic Plan for Federal Aquaculture Research. Effective implementation of these plans will be critical for economic development strategies of the aquaculture sector. In particular, a predictable, efficient permitting system that allows for long term use of the ocean space is required to encourage private investment.
3	Goal 1. Encourage Industry Investment (<i>6 pages</i>)
3	Objective 1.1: Reduce Barriers to Entry <ul style="list-style-type: none">- Implement efficient and predictable permitting processes, as outlined in the Regulatory Efficiency Strategic Plan- Explore public-private partnerships to support business incubation and acceleration- Explore other federal regulatory actions that de-risk investment in US aquaculture

- 4 Objective 1.2: Increase Access to Capital
- Support investor awareness and interest in aquaculture, especially for investment opportunities located in diverse and underserved communities
 - Support new entrants to the aquaculture sector, including underrepresented communities and veterans, through e.g. business and strategic planning and micro-start-up financing
 - Facilitate access to federal grant and loan programs
- 5 Objective 1.3: Increase Incentives
- Work with states to monetize (e.g., tax and R&D credits, carbon/greenhouse gas credits, ecosystem service payments) restorative aquaculture ecosystem services (e.g., shellfish or seaweed water filtration, nutrient/carbon sequestration).
 - Increase access to incentives for clean energy, energy efficiency, and/or clean energy literacy
 - Develop and use special economic development areas/parks such as Qualified Opportunity Zones
- 6 Objective 1.4: Increase Access to Federal Risk Management Services
- Explore loan guarantee programs, trade insurance, risk insurance (e.g., through USDA's Risk Management Agency (RMA) and Farm Service Agency (FSA)), disaster assistance programs (e.g. USDA FSA Emergency Assistance for Livestock, Honey Bees, and Farm-raised Fish Program (ELAP))
- 7 Objective 1.5: Improve Economic Data – increasing accessibility and quality of aquaculture market and economic data
- Improve data on current seafood market production, cold storage, trade, and price data (more state and federal collection and coordination with data sharing)
 - Model future price and market effects of production increases, market distributions (like COVID), and policy options
 - Improve quality, consistency, and reporting of aquaculture production and revenue data collection (e.g., FUS, USDA species data collection and Census of Aquaculture, state data collection)
- 8 Objective 1.6: Support State or Regional Initiatives
- 9 **Goal 2. Support Infrastructure and Workforce Development (4 pages)**

- 9 Objective 2.1: Educate and Train a Skilled Aquaculture Workforce
- Bolster training programs across the seafood supply chain, including business planning and entrepreneurship, engineering and marine sciences (STEM), trade management, regulatory compliance, and seafood processing and inspection
 - Work with industry to understand current and future aquaculture workforce needs and identify training and education pathways required for positions needed to fulfill these needs
 - Partner with e.g. community colleges, specialized educational institutions, technical schools, and traditional 4-year colleges and universities to support training programs, alone or as part of two and four degrees that provide the education and skills required to pursue careers in aquaculture
 - Emphasize programs and institutions focusing on underserved communities, including underrepresented minorities, rural communities, veterans and their families, tribal communities (especially in remote areas), and others
 - Support and connect qualified applicants to employment opportunities throughout the seafood supply chain via sponsored work-study, apprenticeship, and internship opportunities
- 10 Objective 2.2: Develop and Encourage the Adoption of New Technologies
- Expand technical assistance through Sea Grant and Land Grant extension services
 - Increase the commercialization and adoption of new or improved technology and innovation (e.g. recirculating aquaculture systems (RAS), offshore, urban agriculture, hatchery technologies)
 - Expand access to new technologies to improve efficiency throughout the sector
 - Support research, development, and commercialization of new and existing aquaculture species with high market potential
 - Explore the expanded use of tools, such as SBIR and prize competitions, to commercialize promising aquaculture technologies.
- 11 Objective 2.3: Increase Investment in Physical Infrastructure
- Strengthen the use of private-public partnerships
 - Support and encourage expansion of hatchery and nursery capacity (e.g., to increase supply of shellfish seed, fingerlings)
 - Increase and/or modernize downstream infrastructure (e.g., port facilities, processing capacity, cold storage)
- 12 Objective 2.4: Establish Test Beds, R&D Consortiums, and Pilots
- Establish demonstration and training centers, through public-private partnerships, to increase the rate of knowledge transfer from research to implementation

- Develop and deploy technologies to maximize sustainable production potential and economic and performance
- Support and conduct pre-competitive research that develops or improves various types of specialised or innovative aquaculture systems and technologies, such as aquaponics, integrated multi-trophic aquaculture, and aquatic health diagnostic services

13 **Goal 3. Expand Market Opportunities for U.S. Aquaculture Products**
(4 pages)

13 Objective 3.1: Support New Product Development

- Support the development of innovative value-added food products, product forms and packaging (e.g., for direct delivery or supermarkets, for school lunch programs)
- Develop uses for non-consumptive use of aquaculture products (e.g. animal feeds, drugs, cosmetics)

14 Objective 3.2: Expand Domestic Market Opportunities

- Examine and support local/regional food market pathways for US produced aquaculture/seafood (e.g., farmers markets, ethnic markets, direct delivery)
- Increase consumer awareness of seafood products and emphasize food connection, including food security, quality/safety, and responsible marketing (e.g. food labeling)
- Explore marketing strategies for US seafood, in partnership with the private sector (e.g. generic marketing, checkoff programs, direct sale/local foods, “Eat Midwest Fish” campaign)
- Emphasize product quality, along with sustainability and environmental performance of US aquaculture
- Support seafood certification programs
- Support and implement traceability programs
- Increase seafood accessibility in more communities

15 Objective 3.3: Increase International Trade

- Increase trade competitiveness of U.S. aquaculture products (e.g., promote aquaculture product exchange in free trade agreements)
- Support ongoing efforts on federal policies and measures to open US seafood markets for fair and reciprocal trade by expanding export opportunities for U.S. seafood producers to foreign markets
- Enforcing U.S. food labeling requirements
- Improve interagency coordination to identify and eliminate non-tariff trade barriers

16 Objective 3.4: Explore the Expansion of Aquaculture Purchases by Government Commodity Purchase Programs

- E.g. USDA AMS commodity procurement (surplus or emergency purchases), school lunch programs

17	Goal 4. Support Aquaculture Communications and Literacy <i>(4 pages)</i>
17	Objective 4.1: Increase Partnerships and Engagement to Connect With the General Public <ul style="list-style-type: none">- Increase partnerships with, and engage the support of, national non-governmental organizations to design common messages and provide accurate information to their networks- Work with partners to emphasize community health, food security, product quality, and environmental footprint benefits of farmed seafood, and the value of seafood communities through consistent messaging- Increase awareness of the environmental benefits of seafood farming and its contribution to the Blue Economy.
18	Objective 4.2: Increase Aquaculture Literacy <ul style="list-style-type: none">- Support K-12 education, with particular focus on high schools – apprenticeships, exchanges, internships- Partner with informal aquariums and other learning institutions that have expertise in effectively engaging the public on environmental issues
19	Objective 4.3: Community Outreach <ul style="list-style-type: none">- Increase partnerships and two-way communication with aquaculture industry members to provide consistent information about the status of aquaculture- Increase fishing and coastal community awareness of aquaculture through partnerships with MREP, aquariums, eco-tourism, and other entities
20	Objective 4.4: Interactions with Federal Agencies and Congress <ul style="list-style-type: none">- Increase Congress understanding and support for aquaculture by communicating aquaculture’s role in safe, secure, high-quality, and sustainable seafood supply for the nation and highlight the value to constituents- Increase aquaculture inreach to agencies integral to expanding responsible aquaculture within the United States- Demonstrate how seafood can be used (e.g., USDA and buying programs) to support agency missions
21	Implementation Plan <i>(2 pages)</i>
23	Summary of Stakeholder Engagement <i>(1 page)</i>
24	Inside Cover <i>(last page)</i>