August 25, 2023

Arati Prabhakar, Ph.D.
Director
Office of Science and Technology Policy
The White House
1600 Pennsylvania Ave NW
Washington, DC 20500
via *regulations.gov*

Re: National Strategy for a Sustainable Ocean Economy; Docket No. OSTP-CE-2023-0009

Dear Director Prabhakar:

We appreciate the opportunity to inform the development of the National Strategy for a Sustainable Ocean Economy. Stronger America Through Seafood (SATS), a coalition of industry partners representing the seafood supply chain, works in support of increased U.S. production of healthful, sustainable, and affordable seafood.

Offshore aquaculture an integral component of a sustainable ocean economy. Aquaculture is one of the fastest growing, sustainable forms of food production in the world and has the unique potential to improve American food security and nutrition, enhance coastal resilience, create quality jobs, help restore species and habitats, and ensure that seafood (both wild-caught and farmed) continues to be an important part of the global food supply.

We offer the following information in support of offshore aquaculture to inform the National Strategy for a Sustainable Ocean Economy.

National Vision and High-Level Goals

The goals and vision for a sustainable ocean economy must provide for offshore aquaculture in the U.S Exclusive Economic Zone (EEZ). The demand for seafood is growing and wild capture fisheries alone are unlikely to meet the demand and remain sustainable. The effects of climate change are already impacting wild capture fisheries and will undoubtedly create more disruptions in the seafood industry. The expansion of offshore aquaculture would support the seafood supply chain and ensure a stable, steady supply of locally produced, healthy seafood in the U.S.

Science and research currently available demonstrates that aquaculture is one of the most sustainable forms of protein production. SATS commissioned a comprehensive review of existing scientific literature on the climate impacts of farming finfish, shellfish, crustaceans, and seaweeds, the findings are supportive of an expanded industry. The report demonstrates that aquaculture is healthy for our planet and must be part of any credible conversation about meeting U.S. and global climate goals. Aquaculture has relatively low CO2 emission levels, can contribute to carbon sequestration by growing carbon-rich products (e.g., seaweeds), and can also help support climate-ready conservation strategies by restoring depleted habitats, helping recover threatened and endangered species, and augmenting wild fisheries.

Successful Regional or Local Efforts

Responsible and sustainable commercial-scale offshore aquaculture is possible in U.S. waters. We provide two examples of marine aquaculture, one in the U.S. and one in Panama, which highlight how the use of best practices and technology can lead to sustainable offshore aquaculture. These can be a model for aquaculture in the U.S. EEZ.

Blue Ocean Mariculture: Blue Ocean has been sustainably raising Kanpachi (*Seriola rivoliana*), a light, flaky, nutrient-rich, sushi-grade fish, at a commercial scale in submersible sea pens in Kona on the Big Island of Hawaii in state waters since 2009. The species and farm location were selected in collaboration with local fishermen and native Hawaiians.

The farm's deep water submersible pens cover 90 acres in 200 feet of water allowing for open ocean conditions close to shore. Each net pen can be lowered 20 feet below the surface to provide maximum space for the fish, minimize interactions with vessels, and protect pens during storms. Siting reduces near-shore user conflicts while making it easy to monitor and maintain water quality, preserve seafloor health, and limit wildlife interactions. The fish are fed a premium diet of fish meal, fish oil, and non-GMO grain while spawning naturally under observation to ensure that population is controlled to prevent overwhelming the local ecosystem. Blue Ocean's responsible practices made it the first finfish cultivation facility in the United States to be certified by the Aquaculture Stewardship Council (ASC).

Forever Oceans: Forever Oceans, a U.S. based company, is conducting commercial, deep-water, offshore finfish aquaculture in Panama using a suite of cutting-edge technologies to grow healthy, delicious, sustainable fish. It also produces Kanpachi off the west coast of Panama. Their product is sold to U.S. restaurants and will soon be available in grocery stores.

It uses cutting-edge technology to raise fish offshore in a way that minimizes the impact on the environment while producing high-quality, nutritious seafood. By operating in water more than 300 feet deep using a patented single point moorings, satellite-controlled robotics, and Artificial Intelligence (AI)-driven sensors and cameras, the company is growing fish in clean, open ocean waters. This innovative technology provides for warm water fish production further offshore and into deeper water than has ever been done before at a commercial scale.

Just last year, The Nature Conservancy, a global conservation organization, completed an environmental assessment of Forever Oceans to establish a baseline for the company's environmental performance. The assessment found that farming fish is a comparatively low emissions form of animal protein and that the carbon footprint for Kanpachi is less than global average emissions for farmed salmon. Further, the farm has a negligible impact on the ocean floor—a key area of environmental concern for finfish aquaculture.

Knowledge Gaps

Science Support: Advances in science and technology have significantly reduced the environmental footprint of offshore aquaculture in the last 20 years. With proper siting, water quality and sea floor impacts from farms have vastly improved. Advances in fish feed have reduced wild fish inputs while precision feeding reduces wastes. Fish disease is largely treated with vaccines and probiotics and fish health is monitored through the use of cameras and AI.

Siting Analysis: NOAA Fisheries' Office of Aquaculture has made great progress in conducting a siting analysis for future Aquaculture Opportunity Areas (AOAs) in federal waters. AOA's are a defined geographic area that has been evaluated to determine its potential suitability for commercial

aquaculture. Proper siting significantly reduces the environmental impact of aquaculture, minimizes user-conflicts, and aids farmers in selecting optimal areas for production. To date, NOAA has identified nine areas in the Gulf of Mexico and 10 areas in the Southern California Bight that have the highest potential to support three to five marine aquaculture operations, while also reducing conflicts with other ocean users.

Support for additional appropriations for NOAA to develop AOAs and scientific tools would be of great benefit to develop U.S. offshore aquaculture and would drive technological advances that will boost the sustainability of offshore aquaculture.

Existing Strategy Documents

The importance of aquaculture to ocean sustainability has been recognized by the last two administrations and by the Food and Agriculture Organization (FAO) of the United Nations.

We commend the Biden Administration's U.S. Ocean Climate Action Plan released earlier this year that calls for expanded aquaculture to build resilience of the U.S. and global seafood system to climate change. As climate change intensifies, we must look to take pressure off of wild capture fisheries, safeguard our seafood supply, and reduce our carbon footprint.

In addition, we support the inclusion of offshore aquaculture in NOAA Fisheries' National Seafood Strategy that was completed earlier this month as an approach to enhancing the resilience of the seafood sector in the face of climate change and other stressors. In particular, the strategy calls for accelerating progress on implementing an efficient, predictable, timely, and science-based regulatory framework for marine aquaculture.

In keeping with this theme, this May, the FAO called for an expansion of aquaculture to sustainable agri-food systems for nourishing nations, reducing poverty, and providing healthy, nutrient-rich, and climate-friendly food. The FAO further highlighted the need for many countries to develop and implement supportive, dedicated legislation, through a lead agency, to coordinate regulations that promote sustainable development.

Key Challenges

With our expansive coastline and many suitable spaces to site farms, we can make sustainable, environmentally sound offshore aquaculture a reality now. Yet, the U.S. lags far behind the rest of the world in farmed seafood production. The single biggest reason is the lack of a clear regulatory pathway for permitting new projects, particularly offshore. This challenging reality has forced many American businesses to invest in other countries.

U.S. aquaculture is currently constrained by the absence of an efficient and affordable permitting process, particularly in U.S. federal waters. Federal legislation is needed to create a pathway for sustainable American offshore aquaculture. To overcome these regulatory hurdles and lay the groundwork for a viable U.S. offshore aquaculture industry, the bipartisan "Advancing the Quality and Understanding of American Aquaculture Act" or the "AQUAA Act" was introduced in June by Sen. Roger Wicker (R-Miss.) and Sen. Brian Schatz (D-Hawaii) in the Senate and by Rep. Kat Cammack (R-Florida), Rep. Ed Case (D-Hawaii) and Rep. Mike Ezell (R-Miss.) in the House.

The AQUAA Act provides a comprehensive, nationwide permitting system for, and management of, marine aquaculture facilities in the EEZ. It authorizes the NOAA to facilitate responsible aquaculture

development in federal waters through a stable and efficient regulatory process and increased interagency coordination that is environmentally sound and sustainable.

By prioritizing domestic offshore aquaculture, this administration can support the growth of an American seafood community that is resilient to economic and climate changes and is part of a holistic approach to a sustainable ocean and food strategy.

Thank you for the opportunity to comment. If you have any questions or require additional information, please feel free to contact me.

Respectfully,

Drue Banta Winters
Campaign Manager
Stronger America Through Seafood