

Title: Enabling Increased Sales of Alaska Seaweed

Organization: Alaska Fisheries Development Foundation (AFDF)

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Priority Addressed: Priority #2 – Science or Technology that Promotes Sustainable U.S. Seafood Production and Harvesting

Background: In 2017, global aquaculture production of seaweed was 23.8 million tons per year, worth \$6.4 billion. The majority of edible seaweeds consumed in the United States are imported from Asia. Alaska has more than 30,000 miles of clean, pristine, nutrient-rich coastline, which produce more than 50 percent of seafood in the United States. Alaska has all the qualities of an ideal environment for mariculture development: clean and abundant waters, hardy coastal communities with maritime experience, and an existing seafood industry and infrastructure.

In 2014, the Alaska Fisheries Development Foundation (AFDF) began spearheading the **Alaska Mariculture Initiative** – a strategy to accelerate the development of mariculture in Alaska. The Initiative led to the establishment of the Alaska Mariculture Task Force by Administrative Orders #280 and #297 under Governor Walker and the adoption of a statewide comprehensive plan, called the Alaska Mariculture Development Plan (Plan) with the goal to grow a \$100 million industry in 20 years.

In 2017, three farms harvested farmed seaweed for the first time in Alaska. In 2019, these three farms have already exceeded the production capabilities of the two small companies purchasing seaweed in Alaska. During this same period of time, 32 additional seaweed farm applications were submitted to the state, several of which were over 100 acres in size. Although the seaweed industry in Alaska is in its infancy, it is poised to experience considerable growth in the near future. Alaska's seaweed farmers are currently focusing on sugar kelp, ribbon kelp, and bull kelp. A lack of information about seaweed nutrient and contaminant levels, optimal products and processing procedures, prices, demand, markets, and a marketing communications strategy has hindered the growth of the industry.

Rationale: As part of the Plan, AFDF commissioned a two-phased economic analysis. The second phase was an economic analysis which provided framework for how the Alaska mariculture industry may develop over the next 20 years. Encompassed in this economic analysis, the McDowell Group included a five-year projection for the development of seaweed farming: ***“By year five, 150 acres will be under cultivation, producing 8,000 lbs per acre”*** or a total of 1.2 million pounds annually. However, in three short years of growing and harvesting seaweed, ***the Alaska farmers have already exceeded existing processing capacity. If we can remove this processing bottleneck, Alaska will exceed the 5-year projection.***

In order to increase market demand for and sales of Alaska seaweed, first the number of companies processing seaweed and the amount of seaweed processed must increase. Much of

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these business decisions hinge on the development of new products, targeting of and access to markets, and understanding prices, production costs and profitability. However, companies currently buying Alaska seaweed (Barnacle Foods and Blue Evolution) and companies considering entering this business have both expressed the need for the following information: 1) nutrient and contaminant profiling, 2) market assessment, and 3) marketing communications strategy.

This project will inform seaweed growers and processors of the optimal seaweed species, product forms and target markets that suggest the highest value potential. With this market and nutritional research, AFDF and partners will provide outreach and education, disseminate the results to seaweed growers and seafood processors and direct this new industry towards sustained market growth. In conjunction with this outreach and education, a communications and marketing strategy will be developed in coordination with industry stakeholders to differentiate and promote Alaska seaweed. This project will increase market demand for and sales of Alaska seaweed products while diversifying economies and increasing the resiliency of coastal communities participating in the seaweed industry, including full utilization of existing processing facilities and other fishery infrastructure. This project addresses both SK Priorities #1 and #2.

General Methodology: AFDF will partner with seaweed farmers, Alaska Seafood Marketing Institute (ASMI), the Alaska Fisheries Science Center (AFSC), a commercial lab, the McDowell Group, and other stakeholders in the Alaska seafood industry to complete the goal and objectives outlined below.

Goal and Objectives: *The overall goal of this project is to enable increased sales of Alaska seaweed in order to meet or exceed production goals set in the Plan of 1.2 million pounds within five years (2023).* This goal will be accomplished through the following objectives:

- Objective #1 – Conduct nutrient and contaminant profiling of commercially grown species of seaweed in Alaska, with samples taken at each farm site (AFDF, seaweed farmers, AFSC, TBD commercial lab).
- Objective #2 – Complete an Alaska seaweed market assessment including an extensive literature review, analysis of trade and market data, stakeholder interviews and research of trade, processing and viable end markets in the U.S. and Europe (AFDF, ASMI, McDowell Group).
- Objective #3 – Create a marketing communications strategy for future brand development, promotion and marketing of Alaska seaweed (AFDF, ASMI, seaweed farmers/processors).
- Objective #4 - Disseminate the results of objectives 1-3 to interested stakeholders (AFDF, ASMI).

Identification of Required Permits: None required. **Estimated Budget:** \$300,000