

OFFSHORE FINFISH SITE SELECTION IN THE NORTHEAST UNITED STATES OF AMERICA – A DEEP DIVE INTO MANNA FISH FARMS SITE SELECTION PROCESS

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Interest in offshore mariculture has grown substantially in the United States of America (USA), but has been limited by lack of a nationally recognized permitting process. Here, the site selection analyses for Manna Fish Farms will be examined. Manna Fish Farms is working with Federal (e.g. NOAA), State, and local groups to successfully permit a finfish farm 8 nm off of Suffolk County, New York, USA. Offshore mariculture site selection requires careful consideration of ocean stakeholders, marine resource distributions, and infrastructure as early in the site selection process as possible. Initially a qualitative site selection was performed using spatial datasets and local expert knowledge. Manna Fish Farms in collaboration with NOAA partners also developed a quantitative alternative site selection analysis as requested by the lead permitting agency, the United States Army Corps of Engineers. This objective proportionally weighted site suitability analysis revealed several suitable sites for an offshore finfish farm. In addition to the site selection analysis farmers are also encouraged to perform a techno-economic analysis to ensure long term economic feasibility of the farm operation.

SELECTING THE “RIGHT” FINFISH SPECIES FOR MANNA FISH FARMS’ OFFSHORE FINFISH AQUACULTURE PERMITTING IN THE NORTHEAST UNITED STATES OF AMERICA

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The development of an offshore mariculture industry has been of great interest in the United States of America for decades. However, no offshore finfish farms are currently operating in Federal waters. Manna Fish Farms (MANNA), Inc. is working with Federal (e.g. NOAA), State, and local groups to successfully permit a finfish farm 8 nm off of Suffolk County, New York, USA. Successful siting requires careful consideration of a variety of abiotic and biotic factors, as well as committed engagement with other ocean stakeholders. Aside from this, the site also needs to be able to successfully foster the growth and healthy development of the desired cultivated fish species. We present a tool developed and used by MFF to review the inventory of native finfish species found to the US East Coast and select the final preferred candidate finfish species to be used at our NY offshore farm. The species analysis decision-making tool incorporates information on the proposed site as well as publicly available biological and economic information on the potential native finfish species. We show that by using the site’s environmental variables coupled with biological and economic criteria of the finfish species, an informed and objective species selection can be made. Ultimately, the creation of a finfish species selection tool will likely be a useful asset to help drive the sustainable growth of the US offshore aquaculture industry.