

March 18, 2022

Dr. Gayle Zydlewski
Director, Maine Sea Grant
Maine Sea Grant
5741 Libby Hall Suite 110
Orono ME 04469

Dear Dr. Zydlewski,

We are a group of scientists, business owners, students, and engaged professionals from across the state of Maine. We are writing to express our concern about the newly-released Maine Aquaculture Roadmap and respectfully share our feedback on the process that the Maine Aquaculture Hub used to assemble it. Aquaculture represents an increasingly significant share of the global supply of freshwater and marine resources. We believe aquaculture has an important role to play in Maine's economy and recognize its potential to attract and retain young people in our state, produce healthy food, and strengthen the resilience of the marine sector. Yet efforts to advance aquaculture, such as the Maine Aquaculture Roadmap, must not supersede meaningful public dialogue, silence divergent viewpoints, or systematically privilege the most powerful voices. Our primary concerns are with regards to the framing; timing; representativeness of participants; diversity, equity, and inclusion; and limited focus on education:

- The roadmap was originally framed as an economic development plan, but instead reads as a broad prospectus on the future of aquaculture, closing the door on broader dialogue about a vision for aquaculture in Maine.
- The engagement process for the roadmap occurred amid the COVID-19 pandemic, which had disproportionate impacts on small businesses and vulnerable communities, limiting their opportunity to participate.
- Participants in the roadmap development process are not representative of the diversity of stakeholders who share our coastal waters, resulting in a narrow perspective.
- There is little meaningful attention to how aquaculture development will center equity, diversity, and inclusion.
- Education and outreach are central themes of the roadmap, but they are framed as one-way communication of aquaculture's benefits, rather than meaningful engagement.

We request that Maine Sea Grant clarify that the Maine Aquaculture Roadmap is an economic development plan and not, in contrast, a state-wide or inclusive planning effort to define the future of aquaculture in Maine by adding a statement about the scope of this effort to the preface of the report. By developing and sending this letter, we want to create space for dialogue around these issues, as well as propose alternative considerations for developing a vision for the future of aquaculture.

The last comprehensive review of aquaculture in Maine was commissioned in 2003 by the Baldacci Administration. In the two decades since then, much has changed as Maine has emerged as a focal area for aquaculture in the United States. According to the Aquaculture Research Institute (2017), the economic outputs from aquaculture in Maine have nearly tripled in

the last ten years and numerous new development projects are underway that will grow the sector further. While such growth represents a major economic opportunity, it also raises important questions about the long-term trajectory of the sector and how the growth will create and sustain benefits for Maine's residents. For example: How can the state's regulatory and leasing processes support small-scale growers, in addition to larger companies? What role can coastal communities and municipalities play in guiding the future of aquaculture? How can aquaculture advance in a way that is aligned with tribal sovereignty? How can aquaculture provide opportunities for an economically and racially diverse population of owner-operators? These are questions that are being asked by landowners, municipal officials, scientists, state representatives, government officials, aquaculture growers, wild seafood harvesters, and practitioners.

To explore the questions listed above, there have been multiple attempts to create a collaborative process that focuses on the future of aquaculture in the state. For example, in late 2018, several of the co-signers on this letter contributed to an effort to convene stakeholders on this topic, including representatives from Maine Sea Grant, Maine Department of Marine Resources, and the Maine Aquaculture Association. The process came to an end when the University of Maine and Maine Sea Grant were directed to disengage in the work. The central arguments for ending this discussion were twofold: (1) it was bad timing for the aquaculture sector due to other ongoing projects, and (2) similar work had already been done in the past. The latter argument is captured in public record and summarized by Sebastian Belle, the Executive Director of the Maine Aquaculture Association, during a public hearing for LD 1420, which was introduced to the Maine State Legislature's Joint Standing Committee on Marine Resources in December 2018 and would have established a taskforce on the future of aquaculture. In his words, "We do not need another study."

No less than one year later, Maine Sea Grant announced that it was launching the Maine Aquaculture Hub and embarking on a scoping process with the Maine Aquaculture Association to produce knowledge and recommendations that would shape aquaculture development for the next decade.

The stated purpose of this effort was "to create an economic development plan for the sector," thereby making it distinct from other recent efforts. Out of this 2-year process came the Maine Aquaculture Roadmap. Notably absent from this report is any mention that it is an economic development plan. Instead, the report reads as the de facto vision for the future of aquaculture in Maine for the next decade and closes the door on a broader dialogue. We have further concerns that the process leading up to the roadmap, as well as that which was used during the creation of the roadmap, resulted in a narrow perspective that does not represent the diversity of stakeholders who share our coastal waters, let alone those within the aquaculture sector.

We outline our specific feedback about the process, which we frame as questions:

What is the purpose and scope of the roadmap? This effort, as reported to the focus group participants and stated on the Maine Aquaculture Hub website, was about updating MAA's outdated economic development plan for aquaculture in Maine. Economic development is not the same as a vision for aquaculture in Maine, which has ecological, social, and cultural

implications for the state. However, the roadmap consistently conflates the two ideas, which overstates the scope of this effort, and could undermine ongoing and future visioning work. The plan authors should have been explicit about the scope of this work, and not confuse it with a collaborative aquaculture vision.

The initial framing of this roadmap is centered on the assumption that fisheries are declining and working waterfront is in trouble based solely on environmental changes, which ignores social influences such as gentrification. This frame dismisses wild fisheries and fishing livelihoods as part of a past identity or heritage that has little place in the future. The roadmap perpetuates the narrative of aquaculture as a diversification strategy for fishermen, despite evidence that most people entering the aquaculture sector are not commercial fishermen. This frame limits conversation around how aquaculture could support these foundational fisheries, and how the implementation of this roadmap may impact fishing livelihoods in the intertidal and beyond.

The roadmap also does not clearly state the intended outcomes and who stands to benefit from those outcomes. For example, do we want to make it easier for small businesses to get started in aquaculture, or do we want to attract venture capital and enable growth and consolidation by larger companies? Desired outcomes should be coupled with metrics and monitoring to ensure that the intended benefits are achieved, with attention to equity.

How did the timing, especially during the pandemic, affect participation? The engagement process for the roadmap stretched out over the course of nearly two years, beginning in earnest during the COVID-19 pandemic, when schools, businesses, and much of society were under significant stress. The focus groups were also launched during the busy spring season, limiting the participation of smaller businesses. If timing was truly a concern at the end of 2018 when Maine Sea Grant disengaged in the aforementioned initiative, then it is difficult to reconcile how the decision to move forward with the Maine Aquaculture Roadmap made sense. Most notably, the pandemic has had disproportionate impacts on small businesses and vulnerable communities. While we are not aware of any research that is specific to Maine's aquaculture sector on this topic, we can hypothesize that the pandemic has also disproportionately impacted certain subsectors of the aquaculture industry more than others, making it more difficult for those groups and individuals to participate in the roadmap process.

What structural biases were created based on the methods used to select participants, analyze themes, and facilitate focus groups? The roadmap authors report that the plan was shaped by input from 141 people during 10 focus groups. This is an impressive figure and represents a major amount of work, but we question the representativeness of the process and credibility of the methods. The approach used to identify the four central goals outlined in the roadmap is problematic and raises questions about diversity and inclusion. As stated on page 14, goals for the next decade were identified by "tallying the occurrence of each topic across focus groups." This approach makes sense if the number and types of people participating in the focus groups are representative of the broader population of stakeholders, but if they are not, the approach introduces a structural bias in favor of those who are overrepresented in the sample. It is difficult to know the total population of those who are directly and indirectly connected to aquaculture in Maine, but the fact that there were 13 investors as compared with only 6 fishermen and 2 representatives from the four federally-recognized Wabanaki Tribal Nations

(namely the Penobscot Nation and Passamaquoddy Tribe), suggests that it was not representative.

The roadmap does not describe how decisions were made about which stakeholders to invite to participate. Based on the list of participants, it appears that the Black, Hispanic, Asian-American, and immigrant members of the Maine aquaculture sector were wholly absent; and while female-led companies were somewhat represented (8% of aquaculture industry participants), male producers dominate. MAA member companies and board members are also over-represented throughout the document; producers have expressed concerns that the cost of MAA membership limits participation for small businesses, and this should not be reflected in this roadmap process. Finally, finfish operations are over-represented (17% of aquaculture industry participants), including companies that have not yet produced fish.

Those of the authors of this letter who were involved in the focus groups also note that the “environment” that was curated in several of the groups demonstrated bias in multiple ways. Most notably, many of the groups were not facilitated by neutral individuals, which is a core recommendation of Maine Sea Grant’s own facilitation training program. Instead, these groups were facilitated by those with a vested interest in the outcome. This contributed to a hostile and unwelcoming response to divergent views in ways that shut down discussion. This also creates structural limitations of focus groups where louder voices may receive more attention without skilled facilitators and/or multiple methods. While the roadmap claims to “reflect the views of those stakeholders who engaged in the process,” it ignores any costs, trade-offs, or controversy surrounding aquaculture growth. Page 14 states that 25 people provided detailed comments on the draft roadmap, including several of the authors of this letter, yet the goals and action items did not change between the draft and final versions, making it unclear how diverse perspectives were considered and incorporated.

How does this roadmap account for diversity, equity, and inclusivity in the aquaculture sector? Given the concerns we have raised about the exclusivity and inequity of the roadmap development process, we are likewise concerned with the lack of attention to achieving equity, diversity, and inclusion in the future of the aquaculture sector throughout the report. For example, developing aquaculture on Wabanaki homelands will intersect with tribal interests, coastal homeowners, and a multitude of fisheries. The livelihoods of wild shellfish harvesters, in particular, are directly tied to the intertidal zone and often overlap with aquaculture, yet it appears that only one clam harvester was included in this process. Small-scale aquaculture could provide an opportunity for a diverse population of small business owners, but the roadmap appears to consider ‘new Mainers’ and underserved communities as only members of the workforce rather than as owner-operators. While the roadmap describes diversity, equity, and inclusion as “paramount to the sustainable future of the aquaculture sector,” there is little clarity on how that will be achieved, other than through workforce training and “bringing awareness of [aquaculture’s] benefits” to all Maine citizens.

How does education (one-way communication) achieve community engagement? The roadmap effort is described as presenting a “collaborative outlook” from a “diverse” group of stakeholders. However, throughout the process, rather than inviting feedback and engaging in dialogue to understand and address varying perspectives, concerns expressed by focus group

participants were dismissed based on a perception that they “didn’t understand.” This one-way flow of information is similarly framed in the report itself, making it seem like fishermen, coastal communities, and other marine resources users are ignorant and the solution is to educate them about aquaculture so they may be enlightened to accept a singular and dominant view. For example, community engagement is narrowly framed as “involvement of communities in discussion and development of outreach materials,” rather than meaningful participation, dialogue, and shared learning. This is a classic example of the deficit model—the assumption that public uncertainty or skepticism is solely a result of a lack of information—which is outdated. In addition, the report did not reference more recent research about aquaculture governance in Maine, as funded by the National Science Foundation, SEANET, including research that studied marketing and messaging about aquaculture in the context of Maine and the United States.

In summary, we share Maine Sea Grant’s enthusiasm for aquaculture and are immensely appreciative of your leadership. However, we are concerned that the Maine Aquaculture Roadmap does not provide a shared perspective on the direction of aquaculture in Maine for the next decade. To this end, we challenge Maine Sea Grant to connect more diligently to its goal of supporting resilient communities and commit to developing a transparent process of broad engagement that centers inclusivity and meaningful engagement with diverse coastal community members. We ask that you add a statement about the scope of this effort to the preface of the report that addresses the concerns raised here. As members of the broader coastal community, we hope to engage in a dialogue to determine a path forward that helps managers, policymakers, and stakeholders alike develop long-term strategies for sustainable aquaculture in coastal waters in Maine.

We ask for your collaboration and engagement.

Sincerely,



Joshua Stoll
University of Maine



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PhD Candidate, Antioch University New
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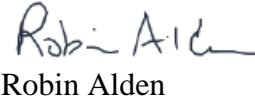
Marissa McMahan
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