TO : **Chairman & Members of Marine Resources Committee**

FROM: Holly Faubel

RE: **LD 1211 A Legislative Study Group to Research Balancing Development and Conservation in Maine's Submerged Lands and Coastal Waters.**

DATE: 5/5/21

Thank you for the opportunity to submit public comment regarding LD 1211

I believe there is a need for the following modifications to be made to this bill and if incorporated will provide a much needed tool for our State legislators. While I am not familiar with the art of crafting legislation, I believe they can be incorporated via your Working Session which is currently scheduled to be held on Thursday May 6, 2021. I encourage you to review these simple modifications below, and the supplied rationale for each.

RECOMMENDED MODIFICATIONS:

1. **Focus the bill on the fin-fish aquaculture**
    a. Remove references to shellfish and kelps

2. **Focus the bill on Maine aquaculture**
    a. Remove references to California and Rhode Island

3. **Add one working representative from:**
    a. The lobster industry (a working lobster fisher, Maine resident)
    b. The shellfish industry (a working shellfish grower, Maine resident)
    c. The seaweed industry (a working seaweed/kelp grower, Maine resident)
    d. A Maine resident Researcher in fin-fish aquaculture (not already affiliated with GMRI, MMA, UoM, UNE, or Maine & Co. as these groups are already well represented)
    e. A Maine resident Researcher on the subject of Climate Change/Blue Coastal Carbon

4. **Add in a reference goal regarding compliance with the Federal Clean Water Act and the Federal Clean Air Act**

RATIONAL FOR THE ABOVE MODIFICATIONS:

1. **Focus the bill on the fin-fish aquaculture:**
    a. Remove references to shellfish and kelps

Today our shellfish and seaweed aquaculturists and harvesters consist of small to medium size operations. They either have a long history of operation in Maine or their product is considered regenerative/restorative in regard to our coastal waters. They do not, I believe, present or warrant the passage of an emergency bill. However, this is not the case in regard to the "gold-rush" underway regarding fin-fish aquaculture. The fully open or partially closed net-pen installations have and continue to threaten; our shell fishers/growers, our wild recreational and commercial fishing operations, and our coastal submerged lands and coastline climate resilience, and our ability to protect and restore endangered fin-fish species.

Evidence of those impacts abound and thus far have not been able to be addressed via application of our current DEP and DMR regulations. Open net pens have had and continue to have a significant detrimental effect on the benthic ecology of submerged lands in areas where they are present. While the fallowing of some pens for a period of several years can help, the recovery of those areas are either slow, low or non-existent. Much is already known about the effects of sea-lice and pathogens that transfer from these penned fish to wild stock.

Even vaccinated stock are still vectors for mutant viral strains that the wild stock have absolutely no immunity to. In regard to fish escapes, they are highly vulnerable and regularly impact the restoration and recovery of wild stocks. These escapes are not only due to the fish encased in the nets themselves, but during transfer of stock from wellboats to pens.

Partially closed net-pens do not solve these issues. While much is made of anti-fouling metal nets, even those with a second lining layer, do not stop fish escapes. Post smolt salmon will continue to escape during wellboat transfers and through wave action across the tops of polyethylene netting.

While there may be some reduction in sea lice, these pens are open to receiving and discharging wave action waters in the upper portion of the water column where sea lice reside and breed. Therefore the sea lice problem for both the penned stock as well as the wild fish still exists.

The risk of the spread of viral and mutant virions is not addressed at all, and stands as the greatest risk hazard to our wild stocks. Even when species such as yellowtail are raised, which are less affected by some of the strains of salmon virus, yellowtail carry and transmit all of these same viruses which affect not only wild salmon, but striped bass, wild cod, sturgeon, sea-run trout, and almost every fin-fish species.

Whether these wild stocks are part of the recreational industry or the commercial food fishing industry they are all highly at risk. Once a mutant virus infects even just a few wild fish, waterborne viruses can decimate an entire population in a matter of months, with no remedy available. As a standing member of the European Aquaculture Society

(EAS) I am familiar with the efforts underway to create fully closed sea pens because of these very issues.

Likewise, partially closed sea pens do not address the issues of either surface algal blooms or deep water algal streams. Again, these two issues are what have prompted Norway, Scotland and Ireland and Denmark to undertake the joint effort with Freshwater Institute and Nofima via the CntlAqua project to develop and promote the use of fully closed sea pens as well as fully closed land-based RAS facilities.

The CntlAqua project is aimed at the issue with surface algal blooms and the deep water algal streams that are now plaguing even the deepest Norwegian fjords. They are not solved by partially open net-pens or partially open RAS facilities. This is because the nitrogen, phosphorus and unionized ammonia is not primarily contained in the centrifuged or heat dried remains of feces. Most of the nitrogen, it is in the liquid component, discharged from the fish gills, and then is discharged either from on pen-treatment stations, off pen-barge stations or on-land facilities. It does not matter that you filter/dry/heat the feces, by the time the feces mixes with the water any of the smaller amount of nitrogen contained in the fecal remains nitrogen along with phosphorus and ammonia are already in liquid form. The liquid discharge whether on pen or via land based effluent pipes is where the problems arise.

RAS facilities are highly tuned machines that are designed to never turn off. They purposely designed <u>not</u> to be shut down when their livestock is present. You cannot take a system as complex as a partially open RAS system and suddenly turn it into a closed system. Once shut down the livestock will begin to die within hours.

Additionally, fish grown in partially open RAS systems must go through a purge tank for about 5 or 10 days prior to harvest. During these purge events, none of the water is returned to the production filtration system or tanks. During purge, millions of gallons of water must, by design, flow out directly into the effluent pipe. It is typically not filtered, it is typically not sanitized, it is typically full of all of the off-flavor geosim components and any therapeutics that these fish have ingested or swum in. All of that goes directly out of the effluent pipe and into our coastal waters. Where the backwash water that comes from cleaning the feces gathering filters goes depends on the system design.

All effluent, whether production tank water or purge water, goes out many degrees warmer than the receiving waters. It also goes out many units more acidic, roughly 6.3pH compared to 8.2 pH for seawater. One should note that the pH scale is not logarithmic, so this is highly acidic water. The important sea grasses, including eel grass which are so vital as nurseries for wild fish and for coastal shoreland resilience, cannot tolerate or thrive in those changed conditions. Our coastal ecology can build resistance, but not when under constant onslaught. Like any doctor trying to heal a patient, the paramount order is, “First do no harm”.

2. **Focus the bill on Maine aquaculture:**
   We are in Maine. Our coastal topography is different than any other. Our fish populations are different. Our currents, tides and estuaries are different. We have some amount of good data regarding all these matters, it only needs to be applied. However, there is opportunity to improve our baseline data gathering. This is important in order to determine the current state of our waters as well as the rapid changes we are experiencing.

3. **Add one working representative from:**
   a. The lobster industry
   b. The shellfish industry
   c. The seaweed industry
   d. A Maine resident Researcher in fin-fish aquaculture
   e. A Maine resident Researcher on the subject of Climate Change/Blue Coastal Carbon

   I believe the rationale for the above should be clear and evident to your committee and probably needs no further explanation.

4. **Add in a reference goal regarding compliance with the Federal Clean Water Act and the Federal Clean Air Act**

   While you might think this reference goal is unnecessary, unfortunately experience shows otherwise. In regard to the Clean Water Act, the situation is most troubling. One only needs to review what is being termed as a “success story” in regard to land based aquaculture. The RAS project proposed by Whole Oceans was clearly shown to be in violation of the Clean Water Act in regard to further methylation of mercury, its discharge and further distribution of that mercury into otherwise untainted areas of Penobscot Bay. This stands as an example of why an emergency bill is required.

   How so clearly a danger to human health could have been permitted after review by both the DEP and DMR is beyond astounding. The presence of approximately 14 tons of mercury, in both organic and inorganic form, contained as a floating pool that passes above and below the intake and effluent pipes at the Whole Oceans Bucksport location was well known.

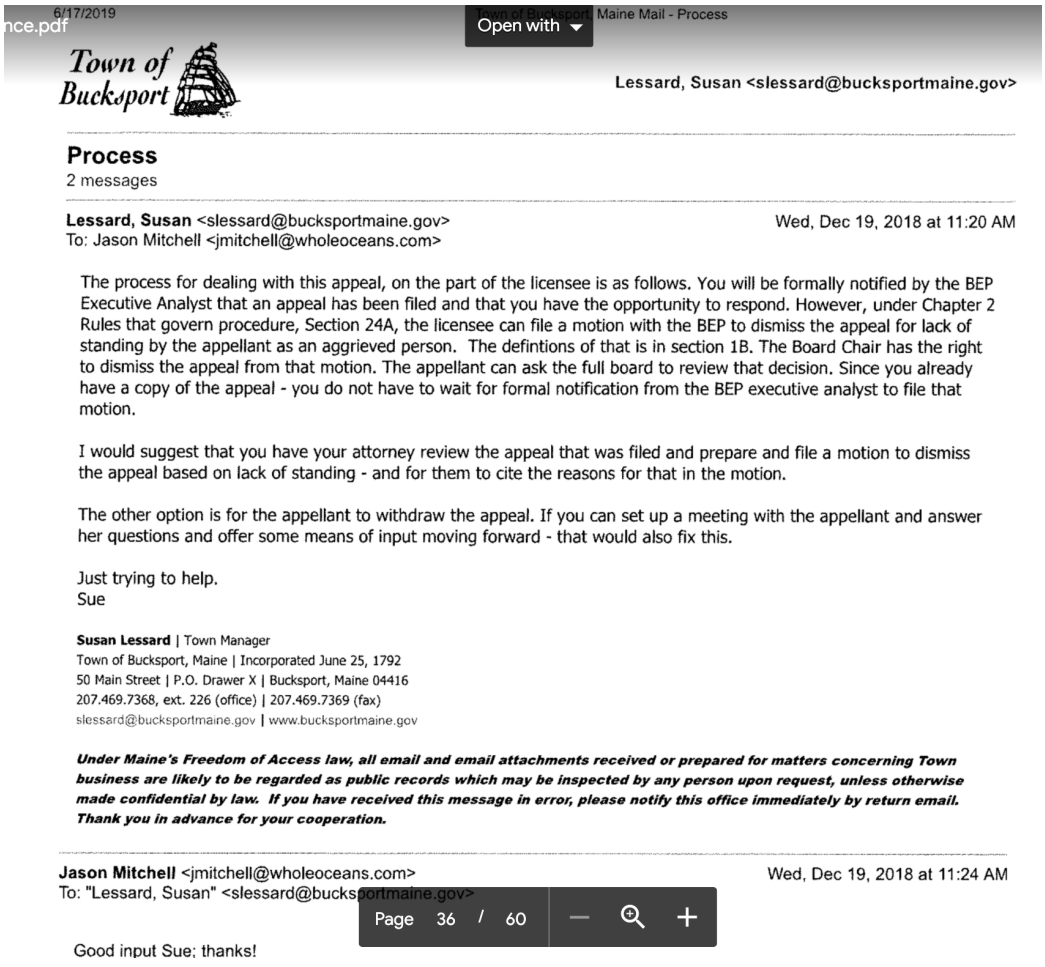
   That this floating pool of mercury will never be fully remediated, but only a small portion of it that is trapped in an estuary just above the facilities location was well known. Well known to both the DEP and the DMR.

   That the only thing holding back this material was a dense cold salt water “wall” from the river dispersing it further into Penobscot Bay was also well known. That the result of that further dispersal would not only result in more shell fisheries being closed, but the

threat of it washing up on the intertidal lands of Castine, Searsport, Isleboro, Belfast and Camden and beyond. This risk was not only well known but upheld in Superior Court via a 20 year battle with Holtra-Chem and its successors.

That the half-life of metholized mercury is 30 years and its danger to pregnant woman and children was well known. Yet, when all of the above was detailed in a 28 page appeal to simply request a modification to the effluent permit in order reexamine and test prior to granting the permit so that the facility being constructed in a manner would prevent such, that appeal sent shockwaves through the industry and in particular our local agencies. Because it was obvious, it was scientifically sound and it was seen as potentially delaying or even stopping the project.

What then transpired, rather than have the appeal be adjudicated on its merits, which were sound and properly filed, a member of the DEP Board took it upon themselves to send an email to the then president of Whole Oceans instructing his lawyer in exactly what to say to insure that they would be able to stop the appeal. A FOAA filed sometime after the appeals process passed revealed the following exchange:



6/17/2019 Town of Bucksport Maine Mail - Process

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Town of Bucksport

Lessard, Susan <slessard@bucksportmaine.gov>

Process

2 messages

Lessard, Susan <slessard@bucksportmaine.gov> Wed, Dec 19, 2018 at 11:20 AM
To: Jason Mitchell <jmitchell@wholeoceans.com>

The process for dealing with this appeal, on the part of the licensee is as follows. You will be formally notified by the BEP Executive Analyst that an appeal has been filed and that you have the opportunity to respond. However, under Chapter 2 Rules that govern procedure, Section 24A, the licensee can file a motion with the BEP to dismiss the appeal for lack of standing by the appellant as an aggrieved person. The defintions of that is in section 1B. The Board Chair has the right to dismiss the appeal from that motion. The appellant can ask the full board to review that decision. Since you already have a copy of the appeal - you do not have to wait for formal notification from the BEP executive analyst to file that motion.

I would suggest that you have your attorney review the appeal that was filed and prepare and file a motion to dismiss the appeal based on lack of standing - and for them to cite the reasons for that in the motion.

The other option is for the appellant to withdraw the appeal. If you can set up a meeting with the appellant and answer her questions and offer some means of input moving forward - that would also fix this.

Just trying to help.
Sue

Susan Lessard | Town Manager
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Jason Mitchell <jmitchell@wholeoceans.com> Wed, Dec 19, 2018 at 11:24 AM
To: "Lessard, Susan" <slessard@bucksportmaine.gov>

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Good input Sue; thanks!

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Suffice to say, when the appeal went before the BEP Board, a new set of legal representatives had been hired by Whole Oceans. They submitted a brief stating that the appellant was “no different than any other member of the public who would be affected and therefore the appeal should not go forward”.

In the then BEP Board Chairman’s defense, he did try to urge that since the merits of the case were not reviewed the matter could go back to the DEP Commissioner. The then acting DEP Commissioner was subsequently removed, then replaced, then reinstated again. Or the matter could go to Superior Court. Those were the options.

The appellant, myself, was not an attorney nor did I have in my possession the results of the FOAA which some else had later filed for. My 28 page appeal had already been published in full, prior to the appeal hearing date in the online version of the Bangor Daily News. I am not sure how they got a copy, it wasn’t from me nor had I shared it with anyone else prior to the appeal. BDN’s publishing of it it did generate a lot of hateful online comments, disparaging me for “interfering” with a matter in Bucksport when I resided in Belfast, including one particularly salient one from the same DEP Board Member. Of course, our waters are connected.

The Whole Oceans facility is still in the process of being designed. My understanding is the only “glitch” at the moment is they are trying to find a way to become exempt from needing fire suppression equipment installed. I could tell you about the odorless colorless gas, that is frequently found in RAS facilities and is highly explosive, but would it matter?

As to the need for a reference goal regarding the Clean Air Act, in the proposed Belfast facility there are 8 diesel generators that will be running during its operation. Not just in case back-up power is needed due to a power failure, but as a way of “shaving” off the cost of electricity to run this mega facility.

So while I have heard a lot of testimony regarding how DMR and DEP are working to protect, preserve and restore our coastal areas which is in fact in their mission statement, perhaps you can understand why some effective legislation might be prudent.

I appreciate the opportunity to submit comments on LD 1211 and hope that during your work session you and this bill’s sponsor find a path forward. Please feel free to share these comments with members of your committee or and others in the legislative or governing bodies or agencies. Thank you for your consideration.

Holly Faubel
Belfast

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