

My name is Henry Sharpe. I'm the President of Frenchman Bay United.

We applaud Senator Grohoski's effort to champion much needed regulatory change for aquaculture. Thanks to the Committee for considering change. We are neither speaking for the proposed legislation, nor opposing it, but simply providing comments for your consideration.

I have a specific recommendation for the bill itself, and then some more general recommendations.

Amendments to the bill clarify that the proposed maximum stocking density applies not to the total lease area, but to pens. I'd recommend that language also stipulate that ***the maximum stocking density is for each net pen individually and not averaged amongst the net pens in the site***. Since fish are kept in different stages of growth, if there's a way to interpret the provision as an average over all of the net pens in the lease site, one pen could have a substantially higher stocking density than the mandated maximum. I don't think that's the intent, so it would be advantageous to clarify the language, so it is not an avenue for different interpretations or litigation in the future.

More generally, Maine is on the cusp of a finfish aquaculture tsunami, particularly around salmon. While there has been ocean-based salmon farming in Maine for years, it's been a modest enterprise. Leading producers saw more opportunity elsewhere, but that calculus has dramatically changed recently.

In the last two years, Washington State and British Columbia banned ocean-based salmon fishing making it banned on the entire Pacific Coast of North America.

Bans are in place not only because farmed species, Atlantic Salmon, jeopardize native species, but because of the adverse environmental impact from nutrient, pharmaceutical, biological, and viral discharges produced by ocean farms. The industry's new and highly promoted, "closed-pen technologies" magnify those concerns because their typical biomass (and therefore nutrient loading) is so much larger. Closed pens also add pollution, and spill risks from the transport, storage, and burning of enormous quantities of diesel fuel, to say nothing of huge carbon footprints to the long list of concerns.

In March, Norway, the world's largest salmon producer [enacted a 35% tax on all ocean-raised salmon](#). That is on top of an existing, heavy, 22% corporate tax, and license fees that are ~4000x more expensive than Maine's lease fees. Also, in March, Nova Scotia placed a moratorium on permitting new ocean-based salmon farms. Argentina and Denmark have banned the practice entirely.

Why? After years of heavy finfish investments in these territories, experience consistently demonstrates that the long-term risk and cost to communities from ocean salmon farming repeatedly outweigh any short-term benefits to foreign producers. Jobs are often heralded as a local benefit, but in fact there are not many jobs, and they're increasingly automated.

These governments all recognize that the continued extraction and pollution of finite marine resources threatens the abundance of waters held in public trust, and that ocean-based finfish farming is simply untenable.

The only time producers want to farm salmon in the ocean is when regulations spur development by allowing discharge of pollution and waste. Then, eventually, it's local communities, not producers, typically foreign producers – not Mainers - who pay for the short-term benefits with long-term, failed ecosystems.

So, increasingly shut out from the rest of the world that's learned these lessons the hard way, the salmon industry is coming to Maine. Closer to home, note that when the bans in Washington State and in British Columbia went into effect, Cooke was the sole producer in both territories. They are a major player in Nova Scotia. With all three territories off the map, Maine is their best option for expansion along with Norway's producers. That's why we've seen five major foreign finfish farm projects in Maine recently. Producers are coming. Our lax regulations, low fees, underfunded and overworked regulatory agencies, make the practice much more profitable here, albeit at the expense of our environment.

Maine should take a lesson from far more experienced regions and ban ocean-based finfishing now, so we don't suffer the lessons they've learned the hard way, namely that while finfishing provides a short-term benefit to producers, it eventually destroys ecosystems. When the abundance of those ecosystems is extracted, producers are then free to move to less regulated, less costly more profitable regions leaving local communities holding the bag.

We believe far more comprehensive review of ocean finfish farming, and ultimately a ban is warranted, and long overdue.

As a final commentary, if ocean-based finfishing is banned, it's important to understand that there are proven alternatives for cost-effective, sustainable salmon production (e.g.: [Sustainable Blue](#), and [AquaMaof](#)). These true-RAS technologies (unlike the supposed RAS facilities proposed by Nordic / Belfast or Kingfish / Jonesport) allow facilities to be built far from the ocean. They draw groundwater once. Their water is pumped and recycled using renewable power. Nitrogen is removed. Solid waste is composted, then methane digested to produce more power. Waste is responsibly processed, not simply diluted into the ocean. They produce no nutrient, pharmaceutical, bacterial, or viral discharges into oceans or aquifers. They are located close to the source of consumer demand, so transportation impact is dramatically reduced. The reality of these technologies is why the [State of Washington partnered with Sustainable Blue](#) after banning net pens.

If Maine still wants to develop its economy around finfish aquaculture, it should be thinking about selling technology, not fish. We should leverage our aquaculture-savvy academic infrastructure and the proven, land-based, true-RAS technologies to develop and export food production systems to a world that wants locally produced, sustainable food. That way, at last, we'd have an economy based on skills, not on extracting and depleting the finite marine resources that our coastline's abundance, existing fisheries, and tourist economies depend on.