From: greg lawson
To: Tasmanian Salmon Study Secretariat
Subject: Submission to the Salmon Study from Southern Beaches residents
Date: Sunday, 5 July 2026 3:29:10 PM

July 5th 2026

To: Dr Reichelt, Dr Craik and the Salmon Industry Study,

I write to you to raise some major concerns, highlighted repeatedly by our local community (being Dodges Ferry, Carlton and the broader Southern Beaches residents in respect to the draft Stakeholder Engagement Plan and Draft Study Plan.

The key points of our concerns are outlined below:

1. Elevated Water Temperatures and Mass Mortality Events

Atlantic salmon require cool water temperatures (ideally 8–14°C) to survive and thrive. In the shallow and low circulation bays of Southern Tasmanian water temperatures routinely rise above 18°C, open pens turn into biological crisis zones and this is clearly evidenced by the extremely high mortality rates of salmon in these highly stocked pens which are now in the millions of deaths per year!

These high temperatures drastically reduce dissolved oxygen levels while accelerating the spread of lethal pathogens like *Piscirickettsia salmonis*. This combination of factors repeatedly cause catastrophic mass die-offs, such as recent spikes where thousands of tons of salmon suffocated and rotted inside their pens. These mass mortalities foul public beaches with oily fish debris, strain regulatory capacity, and prove that open-pen systems cannot withstand these local climatic factors.

2. Immediate Extinction Risk to the Critically Endangered Red Handfish

With fewer than 100 individuals left in the wild, the critically endangered **Red Handfish** (*Thymichthys politus*) stands on the precipice of extinction. Because these tiny, unique fish "walk" along the seafloor and lack a larval stage, they cannot swim away from localised environmental threats. Open-pen salmon farms release thousands of tons of untreated dissolved inorganic nitrogen directly into surrounding waters—producing up to six times more nitrogen pollution than the state's entire human sewage system. This nutrient overloading triggers toxic algal blooms and heavy siltation that smothers the rocky reefs southeast of Hobart, stripping the Red Handfish of the macroalgae habitats it relies on for shelter and egg-laying.

3. Destruction of Weedy Seadragon Habitats via Eutrophication

The iconic **Weedy Seadragon** (*Phyllopteryx taeniolatus*) relies heavily on shallow, pristine kelp forests and seagrass meadows for camouflage and survival. The massive volumes of faeces and uneaten feed pellets that continually fall through the mesh of open pens settle directly onto the seabed. This unchecked organic waste accumulation sparks rapid eutrophication, choking out native seaweeds and fueling the growth of invasive opportunistic species. For a species as sensitive to habitat fragmentation as the Weedy Seadragon, the loss of complex kelp ecosystems effectively drives them out of their native

coastal ranges.

4. Severe Dissolved Oxygen Depletion and Benthic "Dead Zones"

A decade of oceanographic tracking confirms that the dense packing of fish in open pens strips critical oxygen from the surrounding water column. On the seafloor beneath and adjacent to these leases, microbial decomposition of organic fish waste creates expansive, anoxic (oxygen-depleted) "dead zones". This process mirrors the ecological collapse observed in Macquarie Harbour, where oxygen depletion pushed the ancient, endangered Maugean skate to the brink of survival. Expanding these operations into new inshore boundaries will inevitably replicate these suffocating, sterile dead zones across fragile Tasmanian bays.

5. Chemical Contamination and Public Health Vectors

To keep disease outbreaks at bay in overcrowded, overheating pens, aquaculture corporations rely heavily on industrial-scale chemical treatments. Tens of tonnes of heavy antibiotics and chemical therapeutics are flushed directly into public waterways. This extensive chemical leaching leaves toxic residues in the marine environment, disrupting non-target wild species and altering local microbial balances. Furthermore, global research warns that this practice breeds severe antibiotic resistance in surrounding marine life, posing a long-term risk to native ecosystems and public health.

Conclusion and Actionable Request

The evidence is clear: industrial open-pen salmon farming is ecologically incompatible with Tasmania's warm summer waters and vulnerable marine biodiversity. The Tasmanian government must act to protect our unique natural heritage before it is lost forever.

We urgently request that the recommendations to state government should include:

1. **Placing an immediate, permanent moratorium** on all new open-pen salmon farming leases and expansions within local waters.
2. **Move to initiate** a swift, structured transition away from open-ocean pens and toward land-based, closed-loop containment systems.

Submitted by: Greg Lawson (Dodges Ferry Resident) on behalf of the concerned Southern Beaches community
Date: 5 July 2026
