

TALKING POINT: WE NEED A SUNSET CLAUSE ON FLOW-THROUGH HATCHERIES!

At the tail end of a warm dry summer, anglers fishing the pristine headwaters of the Derwent catchment have reported a shocking scene at the lower end of the Florentine River. Slimy grey mats of mixed bacteria and algae cover the riverbed, milky effluent gushes from a pipe and there is a strong odour of fish waste. This mess - discharged by a large salmon hatchery on the Florentine - silently disappears into the clear waters of Lake Catagunya. Upstream, an even larger hatchery discharges poorly treated wastes into Lake Wayatinah, where anglers have previously reported wading in sludge deposits that are knee to waist deep.



Florentine River – upstream and downstream of hatchery outfall

Closer to Hobart, recent citizen monitoring has revealed high nutrient levels being discharged into the slowly flowing Tyenna River from two more large hatcheries at National Park and Karanja, with even higher levels - plus taste and odour compounds - discharged from a fifth hatchery on the River Derwent, below Meadowbank Dam.

These five flow-through hatcheries produce millions of smolt (juvenile salmon) that stock the pens around Tasmania's coast and use vast amounts of freshwater at the bargain rate of \$401/year per facility. This water receives limited treatment and is returned – polluted - to the rivers downstream. Combined, these fish farms discharge the equivalent nutrient pollution of several sewage treatment plants, along with unknown quantities of antibiotics, hormones, disinfectants, taste and odour compounds and other contaminants. This poses an unacceptable risk to the health of the Derwent river and estuary, to water supplies for humans, stock and irrigators, as well as to anglers, rowers and other recreational users.

The combination of high nutrients + declining flows + increasing water temperatures is a perfect recipe for algal blooms, including nuisance and toxic species. The March 2021 Foreign Correspondent episode on the wreckage of New Zealand's clean, green rivers by nutrient pollution is an important cautionary tale for Tasmania, and we should be paying close attention. The Derwent system – with its series of Hydro lakes is particularly vulnerable to algal blooms - and once established, these blooms would be impossible to eradicate. The planned drawdown of Lake Meadowbank over the next two summers could be a trigger and will need careful management.

Flow-through hatcheries are no longer acceptable modern technology in the aquaculture industry, and a clear process and timeline is needed to either convert these to closed-loop Recirculating Aquaculture Systems (RAS) or to close them down. Five things are needed:

1. Immediately reduce the current high stocking levels in flow-through hatcheries as a precautionary measure
2. Set a clear policy stating that flow-through hatcheries are no longer acceptable on Tasmania's waterways. Along with this, a sunset clause to either convert flow-through hatcheries to RAS or to close them down. I would suggest a period of no more than three years, in parallel with progressive reduction in stock levels, as above.
3. Develop specific guidelines on what RAS technologies are deemed to be acceptable in Tasmania.
4. Review and increase water allocation fees in accordance with the level of pollution generated. A non-consumptive fee should only apply to non-polluting activities. If hatcheries paid the same fees as Tas Irrigation customers, their current allocations would cost tens of millions of dollars per year, suddenly making RAS a much more attractive option.
5. Implement a robust and precautionary risk assessment and monitoring program to better document nutrient levels and to prevent algal blooms from becoming established in the Derwent system.

Who is responsible? Clear direction on this needs to come from the top. The new Ten-year Salmon Plan must set this as a clear priority, as must the Minister and the Director of the newly independent EPA. This will enable both the day-to-day regulators as well as the managers of the hatcheries to take the necessary actions, including accessing the capital funding and other resources needed to do the job.

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