

## **The tides don't 'flush' waste**

It's encouraging to read the aquaculture industry's acknowledgment that farmed salmon "poop" and it "could accumulate near a farm" (Aug. 31). However, it's only wishful thinking on their part to suggest the wastes "flush away" with the tides. In fact, research and expert opinion by Department of Fisheries and Ocean (DFO) scientists and researchers at Wood's Hole Oceanographic Institute and Stanford and Colorado Universities indicate the opposite occurs.

A 2005 study by DFO scientists calculated the wastes released from all point and non-point sources, including salmon farms, in New Brunswick's L'Etang estuary. At the peak of their production cycle, fish farms in the estuary released almost 50 times more waste than the sewage plant servicing a community of 1,200 and more waste than the runoff from land, a pulp mill and herring processing plant in the area. The scientists concluded that in intensively farmed bays in New Brunswick "significant changes to the ecosystem have occurred" as a result of waste releases from salmon farms.

In 2011, U.S. researchers studying waste plumes from salmon farms in coastal environments concluded that, "based on our results, 'dilution as a solution to pollution' should not be prescribed for marine aquaculture, particularly in near-shore systems." According to provincial environmental audits (available online), in any given year, 20 per cent of salmon farms in the Bay of Fundy required some type of remediation because the "poop" from the farm has accumulated under and around the netpens to such an extent that it has eliminated 60 to 70 per cent of the species diversity.

Hard as the aquaculture industry may wish, the tides don't carry away hundreds of tonnes of fish waste. Most people know this, and that's why there are dozens of community, fishing and environmental groups pushing provincial and federal regulators to require waste discharges to the marine environment be eliminated. And, that's why DFO needs to transition salmon feedlots from the sea to land-based closed containment farms.

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