

Does the future of fisheries rest on dry land?

Fancy some Manitoba cod? How about some Saskatchewan salmon

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J.R. Rardon / Namgis Project

Fancy some Manitoba cod? How about Saskatchewan salmon? The idea of Prairie seafood may seem outlandish, but with soaring demand running headlong into environmental concerns over fish farms, some believe the future of the fisheries industry rests on dry land.

At the Cheslakees Indian Reserve near Port McNeill on Vancouver Island, environmental groups and the 'Namgis First Nation recently opened North America's first commercial-scale Atlantic salmon farm based entirely on land. It's already common for land-based farms to raise smolts, or baby salmon, before dumping them into ocean net pens. But the 'Namgis project mechanizes the entire fish-growing process from smolt to slaughter in a series of large tanks (using 98 per cent recycled water), covering about the same area as two Olympic-sized swimming pools. Every aspect of the fish's environment is controlled, from water quality and temperature to light exposure and feed, all without the threat of predators or the risk of contaminating wild fish.

There's clearly a market. For the first time ever, global production of farmed fish has surpassed that of farmed beef, according to a recent study by the [Earth Policy Institute](#), and the gap is set to widen as demand soars. Yet Canada's share of the booming global seafood market has shrunk by 40 per cent over the last decade, thanks in large part to changing legislation affecting ocean-based fish farms.

The \$8.5-million 'Namgis project, financed in part by the federal and provincial governments, could help change that. It draws heavily on recent work by the U.S.-based Freshwater Institute, a research and economic development program. It found salmon can be grown in water with up to eight times the density of a net pen, in about half the time. There is less waste of expensive feed, and the fish require no vaccines, antibiotics or pesticides, despite a low mortality rate. "From a quality standpoint, it's an excellent product that people will pay more for," says research lead Steven Summerfelt.

The 'Namgis project says it expects to sell the fish at a 25 to 30 per cent premium over regular net-pen salmon. But proof will have to wait until the spring, and the first harvest of about 470 tonnes of fish. "The intent of this thing is to show the economics work well enough to attract private investment dollars," says project vice-chair Eric Hobson. Expansion plans are in the works for the system to produce 2,350 tonnes of salmon annually, comparable to a net-pen operation.

There are concerns over the economics of the new industry. Ruth Salmon of the **Canadian Aquaculture Industry Alliance** argues only small-scale operations are seeing profits (she points to land-based farms growing arctic char, sturgeon and halibut). But proponents believe that raising healthy fish, close to markets, on a relatively small plot of land will make economic sense. Fish waste could also be sold for fertilizer, they argue, boosting profits. If the 'Namgis project proves those theories, fish farmers and environmentalists might finally find some common ground—perhaps even in the middle of the Prairies.