

Namgis Closed Containment Salmon Farm

History made! On March 18th, fish entered the 'Namgis First Nation's Closed Containment Salmon Farm - the first land-based, closed containment Atlantic salmon farm in Canada, and one of the first in the world that will raise Atlantic salmon to full market size.

Chief Bill Cranmer of the 'Namgis and Eric Hobson, President of the SOS Marine Conservation Foundation, extend their great thanks for all the expertise and support that has made it possible to reach this critical point in moving toward proving the economics of growing Atlantic salmon sustainably, on land, separated from the marine environment.

Project Information: Jackie Hildering; 'Namgis Project Community Liaison; 250-230-7136; jackie@saveoursalmon.ca.

- Click here for the latest Project photos (2013-07-26).
- Click here for updates on how the fish are doing (latest video 2013-06-21).
- Click here for the latest General Project Backgrounder.
- Click here for the latest media coverage on the Project.
- Click here for the Pathogen Control Backgrounder
- Click here for updates dispelling the myths around closed containment Atlantic salmon farming.
- Click here for a video explaining recirculating aquaculture system (RAS) land-based closed containment.
- Click here for updates on Project employment.
- Click here regarding April 2013 negative communications related to the Project.

Project Status Updated August 16, 2013:

- The first fish that entered the quarantine unit on March 18th are vigourous and feeding well. They have grown from an average of 85 g on arrival to now being an average of 550 g.
- The equipment in the growout unit is being commissioned so that the fish can soon move from the quarantine tank to the growout tanks.
- The Project team will be presenting at the Tides Canada Aquaculture Innovation Workshop in West Virginia in early September.
- You can see how the fish are doing via video clips at this link.
 August 12,2103 Facility tour with representatives from DFO. From left to right: Dan Cody (DFO Pacific Region Policy Advisor); Catherine Emrick (Tide Canada - Sr.Associate Aquaculture Innovation); Diana Trager (DFO - Pacific Region
- Construction of the grow-out facility is very near completion.
 Construction and operations funding update:Sustainable



August 12, 2103 - Facility pour with representatives from DFO. Fram left to right: Dan Cody (DFO - Pacific Region Policy Advisor); Catherine Enrick (TIdes Canado - Sr. Associate Aquaculture Innoration); Diano Trager (DFO - Pacific Region Director Aquacuture Management); Cathal Dinneen (Operation Manage); Manok Kamp (Phanemarry Scarchary to the Minister of Fabrices and Oceana); Namas Okej Bill Cramer; and Saxon and Eric Hobson (Vice Chur - Namgis Project and President, He SOS Marrie Conservation Frandalou);

Development Technology Canada (\$2.65m); DFO's Aquaculture Innovation and Market Access Program (\$800K); Aboriginal Affairs Canada (\$257K); the Coast Sustainability Trust (\$113K); the Ritchie Foundation (\$154,745); and BC Hydro Power Smart (\$143K). The federal funding has been leveraged with matching funding of \$3.17m provided by the Tides Canada's Salmon Aquaculture Innovation Fund.

• For funders of the earlier stages of the Project, please see the Project Backgrounder.

Project Summary (Click here for detailed General Project Backgrounder): The 'Namgis Closed Containment Project is growing out Atlantic salmon to 3 to 5 kg in a land-based, biosecure, closed containment recirculating aquaculture system (RAS). The first fish entered the facility on March 18, 2013. British Columbia.

Unified in wanting to prove the environmental and economic benefits of closed-containment salmon aquaculture, the

http://www.namgis.bc.ca/ccp/Pages/default.aspx

'Namgis Closed Containment Salmon Farm

SOS Marine Conservation Foundation is a valued partner in the Project. Tides Canada, in addition to providing funding to the Project, provides advisory support, including technical advice through the U.S. based Freshwater Institute.

guided the decision to prove that there is an environmentally sustainable and economically desirable alternative to farming Atlantic salmon in open net-pens.

RAS technology, which continuously filters and recycles water to grow fish, has been successful in farming other species. However, in order to establish a new land-based salmon farming industry, that eliminates the interaction with the marine environment, RAS needs to be proven for the Atlantic salmon now raised in open netpens.

Environmental benefits of land-based closed containment include:

- No discharge of therapeutants like antibiotics and pesticides into the marine environment (it is anticipated that there will be no need to use therapeutants in the Project);
- No amplification and spread of sea lice to the wild salmon populations;
- The ability to contain and control pathogens (bacteria and viruses) and prevent them from entering the marine environment;
- No discharge of waste into the marine environment;
- No culling and entanglement of marine mammals and birds; and
 No escapes of a non-indigenous species into the marine environment.

Production benefits include:

- · Faster growth rate since conditions can be controlled;
- Less feed is needed;
- No losses due to disease transfer ISAv in Chile 2007/2008 and 2013,and multiple outbreaks in the Canada's Maritimes since the spring of 2012; IHN in B.C. in May/June 2012;
- No losses due to parasites like Kudoa soft flesh syndrome;
- No losses due to weather events, predators and escapes;
- Ability to use the waste as a resource (compost and aquaponics and or biofuel);
- More desirable product: Sustainably, biosecure; traceable; consistent supply and provides food security
- The ability to locate close to markets; and
- · Reduced costs for therapeutants like antibiotics and pesticides.

Project Documents:

- Click here for the General Project Backgrounder
- Click here for the Pathogen Control Backgrounder
- Click here for the October 2012 presentation on the Project at the Atlantic Salmon Federation's Land-Based
 Closed Containment Conference
- Click here for the presentations given at Tides Canada's Aquaculture Innovation Workshop on RAS technology (the most recent workshop was in April 2013)
- Click here for the SOS Marine Conservation Foundation's reports on Closed Containment
- Click here for the Canadian Environmental Assessment Agency (CEAA) Decision for the Project
- Click here for the 2011-11-22 Testimony on Closed Containment Aquaculture to the Standing Committee on Fisheries and Oceans (FOPO) by Chief Bill Cranmer and SOS President, Eric Hobson
- Click here for a summary of considerations regarding the Project's environmental security
- Click here for Mike Berry's report on the AquaSeed coho farm (2011-10-04) as part of developing the Independent Environmental Assessment plan for the Project

Video from the not-for-profit Freshwater Institute explaining land-based recirculating aquaculture systems (RAS). The Freshwater Institute in West Virginia is the world's leading research facility for RAS and their technical expertise is being made available to the 'Namgis Closed Containment Project through Tides Canada.



May 6, 2013. Left - The chlorination tank where the overflow water is disinfected. Selow, the dechlorination tank whe the chlorine is removed before entering the dry infiltration basin. See previous image.









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