

Manchester, Howie

From: Paylor, Adrienne
Sent: July-20-17 3:27 PM
To: Keith, Ian; Waddington, Zac; Manchester, Howie
Subject: RE: DFO Esperanza lice collection

It is my understanding that the province regulates discharge from processing plants so I'm not sure what our C&P would be able to offer here. Is there something in our CoL that allows us to charge someone for Slice resistant lice? I see that moving the lice to other areas is a concern if they are not already being moved there by/on wild fish? Bernie is coordinating the working group looking at how we can strengthen and clarify our COL around sea lice so perhaps we should bring this issue up there for discussion at our next meeting. [REDACTED]

Adrienne

From: Keith, Ian
Sent: Thursday, July 20, 2017 11:19 AM
To: Waddington, Zac; Manchester, Howie
Cc: Paylor, Adrienne
Subject: RE: DFO Esperanza lice collection

I have to focus on finishing Report E but if you are willing to pursue this Zac, we think this is important. The Marine Harvest processing plant in Port Hardy has effluent clarification and disinfection and CFIA knows this but to my understanding CFIA has not set standards for plants for dealing with effluent.

It is protocol and respectful to first talk with Joe, the C&P lead in Campbell River; I haven't done more than meeting Joe but I would call his predecessor and he would assign an officer, once informed of the situation. Mike Ballard would be the one I would want to consult, if okay with Joe. If able to speak with him - he isn't working Finfish at the moment and is on assignment in Prince George - he is the one I have worked with in the past so know that he knows the detail of the HMP and licence conditions. (I haven't worked any cases up with others in C&P.)

Howie suggested checking for viability of lice and egg strings from lice on the fish on the processing line, and with this approach we might be able to sample through Grieg, not requiring C&P. However, [REDACTED] CAHS, sampled from the effluent pipe from a plant and found that the lice were viable, and she hatched eggs and followed these through the napuli stages. The advantage of her approach is that eggs from any point in the process would be captured. The disadvantage is that since Browns Bay plant may already have processed some wild salmon, and the argument could be made that eggs came from other sources. If there were viable lice on the line, and viable lice in the discharge, then all we would have to demonstrate is 48 or 72 hour viability, whatever is the standard used for bioassay viability. It would also be possible to compare sequences for confirmation that lice from fish and lice in the discharge were the same source.

Of course, eggs from the plant are the greater risk, and this is a potential concentrated point source of lice for returning adults. (I assume that Seymour Narrows is too fast for juveniles but I don't know this.) Regardless, the resistant lice should not move from west coast to east coast but demonstrating viability of eggs means hatching and Simon Jones is busy right now. However, Shannon Balfry at the West Vancouver DFO lab is currently hatching lice in her system, so is a potential resource for us. CAHS doesn't have an aquarium like Nanaimo or West Van, so relies on changes of water and airstones, the same as we in Courtenay would do. (Maria has done this sort of thing at Atlantic Vet College, but we would want to farm out the work if possible.)

In the discharge would be lice and or eggs from any source associated with the process, from the ice slurry in the hold of the harvest vessel, or 1 tonne Xactics totes on the flat bed, the washings after from those empty holds, or the washing from the plant floors.

When Grieg changed processing plants without changing this in their licence, their SOPs would change so we can't be sure how the harvest vessel is dealing with the hold water from Esperanza Inlet when transferring the harvested fish

into totes at Muchalat Channel. I have raised the detail that the changing of the processing plant may require amendments to the Grieg licences and therefore the opportunity to make changes in Grieg's licence conditions,

Thanks for this.

Ian

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From: Waddington, Zac
Sent: Thursday, July 20, 2017 7:34 AM
To: Manchester, Howie; Keith, Ian
Subject: RE: DFO Esperanza lice collection

I have no issue with you responding Howie. Have we heard anything about collection at Brown's Bay?

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s.19(1)

s.21(1)(b)

From: Manchester, Howie
Sent: July-19-17 5:43 PM
To: Waddington, Zac; Keith, Ian
Subject: FW: DFO Esperanza lice collection

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Would either of you like to respond, let me know, I have not problem responding to this email if your ok with me doing so.

Howie

From: [REDACTED]
Sent: Wednesday, July 19, 2017 4:46 PM
To: Manchester, Howie