

**From:** Fanos, Brad <Brad.Fanos@dfo-mpo.gc.ca>  
**Sent:** Wednesday, May 26, 2010 9:37 AM  
**To:** Leone, Nick <Nick.Leone@dfo-mpo.gc.ca>  
**Subject:** RE: Cyrus Rocks - media lines

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We will have to discuss with Kerra as I still have some confusion on what advice we previously gave on this site.

Historicaquaculture files have a a unique decision track. Seems to me we participated in a TC EA and determined the existing benthic impacts could not be retroactively authorized? We typically authorize on a change or expanded footprint. That said we knew there was an unauthorized impact when the EA was done so the fact that the impacts there are greater than expected is problematic and like any similar freshwater based project would usually need restoration actions taken. Moving forward this could get messy and we should get legal advice on how best to regulate this site until the new regulation comes into effect.

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**From:** Leone, Nick  
**Sent:** May 25, 2010 10:36 PM  
**To:** Hoyseth, Kerra; Fanos, Brad  
**Subject:** RE: Cyrus Rocks - media lines

Thanks Kerra / Brad - another point/question however ~ given the site history as outlined; and the fact that the site was never issued an authorization (though has now demonstrated a potential impact/HADD non-compliance with FAWCR??) how would we handle a request for continuance of operations (new production cycle) in light of these issues, esp. giving our decision on Duncan & Doyle sites? Would we be required to conduct a new EA/FA review-?? Or am I missing something here?

Appreciate the clarification....

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*New!! Pac-Region Habitat Management Website: Working Near Water*

<http://www.pac.dfo-mpo.gc.ca/habitat/index-eng.htm>

*SCA Habitat Information Line: 250.740-0544*

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**From:** Hoyseth, Kerra  
**Sent:** May 25, 2010 2:12 PM  
**To:** Fanos, Brad  
**Cc:** Leone, Nick  
**Subject:** RE: Cyrus Rocks - media lines

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Below...

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**From:** Fanos, Brad  
**Sent:** May 25, 2010 10:25 AM  
**To:** Hoyseth, Kerra  
**Cc:** Leone, Nick  
**Subject:** RE: Cyrus Rocks - media lines

Thanks Kerra

Good proactive head- up on this. Couple of additional points to consider:

1. How long has this farm been in operation. How large is this farm (production and footprint)

This farm has been operational since pre-2001...don't have a firm date back yet from Marine Harvest. The licensed amount of production is 3000 t (however, they grew less than that this cycle). We haven't Authorized this farm, and therefore do not regulate the size of the footprint. The footprint/benthic impact would be regulated through the FAWCR, which has compliance stations at 30m and edge of tenure. We measured at 125 m as well, as the amended FAWCR was trying to replace the edge of tenure measurement with an "ecological threshold" at 125 where impact should not be occurring (back to background conditions). This farm will have to recover following FAWCR protocols until set conditions are shown through monitoring. However, in general, if a site is compliant at 30m stations, it would be keeping within it's footprint as predicted by DEPOMOD, if we were regulating that. That said, all farms had DEPOMOD run years back and it predicts an impact footprint of 27,874 m<sup>2</sup>, which is nothing out of the ordinary. When we do our field sampling tomorrow, we will ask Marine Harvest to give us a diagram of 'monitored/observed' impact versus DEPOMOD impact. The 5 g contour roughly equates to 1300 umol sulphides, so we can use that number to draw a best guess of impact (much like the one I just sent you for Warne Island).

2. Was a CEAA conducted (by TC? Were we an RA)

This is a weird crossover file, as it was started when Nav Waters was part of DFO, but then it was open for a long time, so moved over to TC in 2004. This site does not have an Authorization, so DFO is never an RA in those cases. "TC" started this CEAA screening in December 2001 and it was signed off in June 2008 (yup, that's how long some of those were going on for...). DFO did provide expert advice.

3. Does DFO have a PATH number for this site?

PATH # 01-HPAC-PA1-000-000133. Deb is updating the action log to add this monitoring event and follow up.

4. How long has benthic monitoring been conducted at this site (you have this below)

Benthic monitoring has occurred every peak since the FAWCR inception in 2002... reports were received by MoE in 2005 and 2008. Industry did some additional monitoring to this, but all monitoring showed acceptable (or even "good") levels of impact.

5. is this operation compliant with provincial lic reg (production , cage array, methods, locations...)

Yes, this site has been in compliance with everything provincial. The monitoring we did right now is prior to the industry monitoring, which will occur within the next 6 weeks. We will provide them with information to ensure they monitor where we saw worst impact. If they are under 6000 umol sulphides at both 30m stations (an average of 3 measurements) then this site is not out of compliance with the FAWCR, but will still require monitoring before they can re-stock. If they are over 6000 they are out of compliance, and their monitoring and fallowing is increased.

MoE and I had a meeting with Marine Harvest this morning. We have asked that MH try to determine why this grow out showed impact previous monitoring did not show. They are looking into all factors that could contribute, including farm practices and staff on-site (feeding being the most relevant here; however since all sites use mechanised feeding tubes and underwater cameras and their site manager has been with the company for years, they don't expect to see much in this area), seasonality (when did last peak monitoring events occur?), production number (already checked; they actually grew out LESS this time than last), if anchors moved locations at all, etc. They will provide us a summary of this. Best case scenario - they find something that helps illuminate the situation. If not, we don't know how to mitigate against it for next grow-out. We would likely have them re-stock when they are legally allowed, and do additional monitoring through the grow-out to further understand impacts here.

We also asked them to provide us with a remediation plan for fallowing and monitoring before re-stocking. I suggested they harvest out the fish ASAP. They were already scheduled to start harvest in June and complete in July, but they'll see if they can move that ahead as much as is possible to get that started.

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That's about it for now. We will be out monitoring there tomorrow, and will let you know how it goes.  
Kerra

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**From:** Hoyseth, Kerra  
**Sent:** May 21, 2010 3:49 PM  
**To:** Imbeau, Michelle  
**Cc:** Leone, Nick; Fanos, Brad; Klaver, March  
**Subject:** Cyrus Rocks - media lines

Hi Michelle -

We may need to consider drafting some communication lines regarding the finfish farm Cyrus Rocks. This site has recently come up on the radar screen of some of our environmental groups, such as Alexandra Morton and the Georgia Strait Alliance. You can see some video regarding this at:

<http://www.vimeo.com/11303083>

There is a section of video in here regarding benthic impacts from farms, and the one they are looking at is Cyrus Rocks. I do not know why this farm was chosen by them, and benthic impacts have not been targetted too much in the past. Basically, they show some video of a "healthy" ocean bottom, and then show what they call an "unhealthy" or farm impacted bottom with commentary from an expert...to me it appears that the two habitats are very different and the second bottom is just a different kind of substrate. It does not really look like classic farm impact to me. However, likely the public won't recognize this. For Brad and Nick - this site has not been Authorized by DFO.

And so, as Habitat often pairs up with the BC Ministry of Environment to do benthic monitoring, we agreed to go out to Cyrus Rocks this week to see if anything was unusual. Ruby Berry, of the Georgia Strait Alliance, and a few others met the sampling boat out at Cyrus Rocks and observed most of the monitoring, and Ministry of Environment answered many of their questions. Bernie Taekema of MoE did most of the talking. On board at the time was also Deb Hughes of DFO-Habitat.

After the Georgia Strait Alliance crew left, our group pulled up quite a few grabs that showed fairly bad impact. This site has not yet even reached peak impact, and so this result was surprising. This site has performed well in the past, and we did not expect to see this. Unfortunately, sulphide samples were elevated at 30 meters from the site, and at 125 meters from the site. These kind of levels will require site following by the company. I'll be going out this Wednesday, May 26 along with Ministry of Environment again, to do some more monitoring and try to determine the main area of impact.

We (me and MoE) have a meeting planned for Tuesday morning to talk to Marine Harvest about the results we found (although they are already aware of the issue now). We will be asking for a remediation plan, and an assessment of why this last grow-out showed different results than we have observed in the past. They will require following at the site until recovery has occurred in alignment with the Finfish Aquaculture Waste Control Regulation, and they will submit monitoring reports to show that recovery before re-stocking. Then we'll do our additional monitoring on Wednesday. Marine Harvest still has monitoring they have to do when they get to peak biomass at the site, and we'll use our Wednesday monitoring to inform what we expect from them when they do their peak biomass monitoring.

I bring this up because it is possible/likely that the Georgia Strait Alliance will follow up with MoE to find out how the sampling went. If they do, MoE will share their data with them, and this may hit the media.

So...summary to start media lines...help me out here Michelle...and it's not complete yet but I'll find out the rest of the details.

- MoE conducts an annual benthic monitoring program to audit industry generated data, and DFO often joins them on these trips. This monitoring is done to ensure compliance with the BC Finfish Aquaculture Waste Control Regulation and Section 35 of the Fisheries Act.
- Benthic monitoring by DFO and MoE on May 19, 2010 showed unexpectedly high levels sulphides (or "level of impact" if that is better in this context) in the sediment samples taken at Cyrus Rocks.
- Marine Harvest has not yet monitored this site this year, so the monitoring was not in response to any specific concern from industry reports.
- This site has been in compliance X times in the past (will find out how many times it has been monitored) - but it

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has always been in compliance before.

- Will also find out... has MoE and/or DFO monitored here in the past? When?
- DFO and MoE will require site remediation to set standards after the fish have been harvested before the farm can be re-stocked.

Anything else? Give me a call if you want to discuss it further, or if you have more important things to add.

Thanks,

***Kerra Hoyseth***

Senior Aquaculture Habitat Biologist

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