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Comments on the report "2019-2020 Annual Environmental Monitoring Report for the KOPAUA Salmon Farm" (Cawthron Report 3942).

#### General Comments:

1. Generally, the report is straight forward and reports the results from the recent monitoring programme. The report is well written, easy to follow. However, with respect to the 2019-2020 Marine Environmental Monitoring Adaptive Management Plan (MEMAMP) for Kopaua, additional information is required as highlighted below.
2. The benthic results (bacterial *beggiatoa* mat coverage, and 250mN site comparability to reference sites) indicate that further action is required in accordance with the MEM-AMP, and benthic Best Management Practices. Initially that action is further sampling. From the report it is not clear if that action is or is not being taken, and how/when those additional results are to be presented. **As this relates to consent compliance and environmental bottom lines, this is a matter which should be addressed as a matter of urgency.**
3. It is further noted that there were changes as a result of the 2019-20 MEMAMP for fine-scale surveys of the water column that are not reflected in the appendices in this document

We reiterate the importance of the consent holder providing the reports to the Tangata Whenua Panel to discuss and provide input. **Has this been done?**

The PRP only have a few comments as listed below and they are generally minor and more around clarification.

1. **Exec. Summary, second paragraph** – Considering the significance of the bacterial coverage result mentioned, a sentence referring to the management actions which are recommended/required should be included here – at the moment, from the exec. Summary text it is not clear if anything is being recommended or done to address those results.

[i.e. additional sampling as per Figure 5 and Table 4 of the benthic BMP  
<https://www.mpi.govt.nz/dmsdocument/15994/send> – suggest to mention if that sampling has been performed already/when is it scheduled, where will its results be presents? – statements should be included in the report regarding the next steps...]

2. **Exec. Summary, Box A** – The green ticks next to ‘**Spontaneous Out-gassing**’ for Zones 1&2 are confusing, as it suggests that outgassing WAS observed, which it was not. Suggest changing the table to clarify that NO spontaneous outgassing was observed for Zones 1 & 2, similarly for *beggiatoa*.
3. **Exec. Summary, Box A** – clarify that the ANZECC “**ISQG-LOW**” guidelines are being used.
4. **Figure 3.** It is noted that the feed levels in 2019 were far lower than in 2018, yet bacterial mat coverage has apparently increased – do Cawthron have any ideas on why that may have occurred?
5. **Box 1, P12 or 13.** For completeness it would help to include comment on the phytoplankton community and no change in typical seasonal patterns.
4. **P13, Section 3.1.** The benthic results (bacterial *beggiatoa* mat coverage, and 250mN site comparability to reference sites) indicate that further action is required in accordance with the MEM-AMP, and benthic Best Management Practices. Initially that action is further sampling. From the report it is not clear if that action is or is not being taken, and how/when those additional results are to be presented. As this relates to consent compliance and environmental bottom lines, this is a matter which should be addressed as a matter of urgency.
6. **P14, Section 3.2, bullet4.** Would be helpful to state that DO remained above 70% which is the applicable limit.
7. **Appendix 4, Table A4.1 and Conditions on P39.** As noted above the frequency for some parameters was changed in the 2019-20 MEMAMP and this needs to be noted otherwise the quoted Conditions do not tally with the actual sampling in Table A4.1 Examples are removal of DRSi, phytoplankton and chl-a from fine scale and only sampling DRP, DRSi, TN and TP on two occasions, not the four required in the original consent.
8. **Appendix 5, P45. Section A5.2.** Is there no way that the same instrument or type of instrument for measuring DO can be made consistent to avoid issues raised in this section?