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Mr Ruben Alvarez
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Mr Peter Bender
Huon Aquaculture Group
PO Box 42
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Mr Mark Ryan
Tassal Group Ltd
GPO Box 1645
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Dear Mr Alvarez, Mr Bender and Mr Ryan

Following my email of 4 January 2018, and your respective responses, regarding the biomass and feed input data for the 2017 year class fish in Macquarie Harbour, I can now provide you with my draft biomass determination for the period from 1 June 2018 until 31 May 2020.

The projected biomass for the YC2017, peaks in December 2018 at around 7,700 tonnes, and will be approximately 7,500 tonnes in both November and January. As a result of these biomass projections I see no need to make a biomass decision for the summer of 2018/19 that reduces the biomass below this level.

In considering the range of approaches to setting the biomass limit for the Harbour I have concluded that there are two strategies that need to be considered: the first being to set a total peak biomass for a point in time (November to January); the second being to set a biomass for each year class of fish that go into the Harbour, for the peak summer period. I believe that it is appropriate to move to a decision-making framework that sets the biomass for a single year class. This approach provides greater flexibility for management options and provides greater certainty for planning of each year class, meaning one year class is not dependent on the next or previous year class decisions.

On this basis, I propose setting the biomass limit for the YC2017 and the YC2018 at 8,000 tonnes for each year class, with the peak period being November 2018 – January 2019 and November 2019 – January 2020 respectively. This will mean the total biomass in December 2018 will be around 9,000 tonnes and could be slightly higher, at around 9,500 tonnes, in December 2019, depending on fish growth and mortality.

The YC2017 is apportioned on the basis that the Franklin lease area is not included in the calculation of lease area, with the 805.89 hectares allocated as per the table below.

Lease area	Ha	%	Max. Permissible Biomass (T/Ha)
Petuna	415.95	51.61	9.93
Huon	229.96	28.53	9.93
Tassal	159.98	19.85	9.93
Total	805.89		

The YC2018 will be apportioned on the basis of the full 925.88 hectares allocated as per the table below.

Lease area	Ha	%	Max. Permissible Biomass (T/Ha)
Petuna	415.95	44.92	8.64
Huon	229.96	24.84	8.64
Tassal	279.97	30.24	8.64
Total	925.88		

The ability of each company to stock their respective leases, and therefore utilise their biomass allocation, will be dependent on the capacity of each lease to be re-stocked in accordance with benthic compliance requirements. A limit on the specific number of smolt authorised to go into the Harbour may need to be determined with each company when proposed stocking plans are submitted, depending on the number of pens bays available and planned following.

I am yet to determine whether or not the use of waste capture systems will be a factor in allowing leases or pen bays to be stocked. I will not be allowing any additional biomass based on the use of waste capture systems.

Lines of evidence to support the draft determination.

It is my intent to provide a more detailed statement of reasons to support the biomass determination when it is finalised. In summary, however, my current view on the environmental status of the Harbour is as follows:

IMAS Technical Reports under FRDC 2016/067 continue to provide important information on the Macquarie Harbour environment. The February 2018 draft progress report indicates that while the benthic community in the harbour was showing signs of recovery in May 2017, the return to very low oxygen levels in spring 2017 has seen a subsequent decline. Monitoring results suggest that until dissolved oxygen levels recover and stabilise over the longer term it will be difficult to see a sustained benthic recovery. However, the results do suggest that if dissolved oxygen recharge is sustained, there is a large reservoir of fauna in unaffected, shallower regions that may quickly recruit based on May 2017 observations. Of ongoing concern are the midwater dissolved oxygen levels which appear to be generally lower across a range of depths, with dissolved oxygen levels at shallower depths (5-15m) declining significantly in the weeks prior to the onset of the oxygen recharge in late October 2017.

In relation to *Beggiatoa*, there are some early signs of recovery based on the IMAS data for October 2017. This trend is supported by four monthly benthic compliance survey results required by the EPA. The May 2017 and September 2017 benthic surveys show that the 35 metre compliance points for nine of the ten Macquarie Harbour leases, were compliant. This was an improvement from 5 non-compliant leases in January 2017 and 4 non-compliant leases in September 2016. The January 2018 visual survey results are not yet finalised. At this stage, however, the distribution of *Beggiatoa* and the potential for increased extent in the Harbour remains a concern.

Subsequent discussion with IMAS regarding preliminary benthic in-fauna results from the January 2018 benthic survey indicate that since May 2017 there has been a decline through October 2017 and January 2018 surveys which is likely to be indicative of the effects of the low bottom water dissolved oxygen concentrations.

Preliminary results from the January 2018 in-fauna survey by IMAS show a reduction in species diversity and abundance since the October 2017 survey at some locations. This information has been provided in a verbal briefing from IMAS staff. The Franklin lease (266) is, however, in better condition than in the October 2016 survey. At this stage, I expect to include the Franklin lease area in YC2018 biomass determinations. However, my decision regarding the availability of this lease for stocking with YC2018 fish will be a separate process from the biomass determination for the Harbour and will occur following consideration of the information provided by Tassal as part of the re-stocking survey.

Given the relatively low level of the biomass remaining for 2018 and the issues raised above, it is prudent to adopt a biomass for the 2019/20 peak period that further supports recovery in the Harbour. Hence my intent is to set the biomass for the 2018 year class to be 8,000 tonnes for the period November 2019 to January 2020.

While I am aware of recent fish mortality issues associated with the presence of Pilchard Orthomyxovirus in the Harbour, my biomass determination is based on environmental, rather than biosecurity, drivers.

Should you wish to make submissions on matters raised in this letter you may do so before 23 March 2018. Depending on further work required following any submissions, I expect to be able to finalise my determinations by 15 April 2018.

Yours sincerely



Wes Ford
DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY