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Our Ref: EN-EM-PE-SM-251454- H633844

16 January 2017

Mr Mark Porter
Petuna Aquaculture Pty Ltd
PO Box 146E
EAST DEVONPORT TAS 7310

Dear Mr Porter,

I advised you on the 30 November 2016 of my intent to make new biomass determinations for Macquarie Harbour, and invited you to provide me with any submissions prior to me making those determinations. I am now making the biomass determination for the period from 14 February 2017 to 30 April 2017, which is attached, along with my statement or reasons for this determination. I will defer making the biomass determination for the period from 1 May 2017 to 30 April 2020, noting the intent to extend this by 12 months, until I have received and reviewed the January 2017 benthic sampling data.

I reiterate the need for these new determinations as I have been considering the very low levels of dissolved oxygen (DO) in the deeper waters of Macquarie Harbour, the extent of the presence of *Beggiatoa* species in the harbour currently, and its increase over the past six months. As you are aware, I have recently placed four leases under management directions resulting from varying degrees of non-compliance at 35 metre compliance points. While this action should reduce the impact at compliance points it is not likely to be sufficient to reduce the harbour wide effects.

The very low levels of dissolved oxygen in the deeper waters are likely to be contributing to the spread of *Beggiatoa* and a change to the in-fauna ecology in the vicinity of the leases. IMAS research undertaken in October shows that there has been a significant decline in in-faunal abundance in the vicinity of all four leases sampled. The first part of this information, relating to two leases, has been provided to you via a presentation and the document I sent to you. IMAS have advised me that the full document will be available shortly as an IMAS Technical Report, (Environmental Research in Macquarie Harbour - Interim Synopsis of Benthic and Water Column Conditions: Jeff Ross & Catriona MacLeod. January 2017). I have included a near final confidential draft for your information, this is not for release.

As a result of the combination of very low DO, the increase in *Beggiatoa,* the decline in faunal abundance in the vicinity of leases, and the general increase in the number of pen bays subject to directed fallowing, I believe that the biomass in the harbour needs to be reduced as quickly as practicable for this summer and that the biomass for the next three years needs to be less than what is currently in the harbour. As such, it is appropriate to make any determinations as early as is reasonably practicable to allow the companies to implement a planned reduction and to plan for the 2017 growing period.

I have advised the Government of these concerns and I provided Minister Rockliff with a copy of these determinations today.

I note that from information provided by the three companies the standing biomass at 31 January 2017, will be slightly more than 14,000 tonnes. The additional two weeks provided to achieve the biomass limit is in recognition that Tassal would not be able to achieve allocated biomass limit by 31 January due to later commencement of harvest strategy, as detailed in their submission. The variation in the biomass limit allocated on a tonnes per hectare basis is due to the determination being based on the actual biomass in the water at the end of November, rather than the estimate of that figure used in my draft determination.

My decision making and management system needs to have regard to the objectives of the *Marine Farming Planning Act 1995*, and the Resource Management Planning System of Tasmania, as stated below. My proposed decisions seek to take account of the environmental, social and economic impacts associated with setting a sustainable management system for the harbour.

SCHEDULE 1 - Objectives of the resource management and planning system of Tasmania

Section 3

1. The objectives of the resource management and planning system of Tasmania are –

(a) to promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity; and

(b) to provide for the fair, orderly and sustainable use and development of air, land and water; and

(c) to encourage public involvement in resource management and planning; and

(d) to facilitate economic development in accordance with the objectives set out in paragraphs (a), (b) and (c); and

(e) to promote the sharing of responsibility for resource management and planning between the different spheres of Government, the community and industry in the State.

2. In clause 1(a), ***sustainable development*** means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic and cultural well-being and for their health and safety while –

(a) sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations; and

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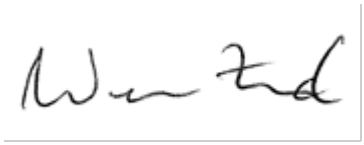
I recognise that we will not agree on all aspects of my proposed determinations, but my role is to make a set of management decisions that are supported by the science and what the data is showing is occurring in the harbour, and be consistent with the RMPS.

I will not be releasing the submissions you have provided until I complete the process and make the second determination. The submissions are mainly focused on the longer term management and as such form part of the material that is still under consideration. Where appropriate relevant parts of these submissions are referred to in my statement of reasons.

I will be publishing my determinations and statement of reasons on the EPA Tasmania website on 18 January 2017, recognising that you may need to advise your Board and shareholders of this decision.

If you have any queries regarding this letter, please do not hesitate to contact me on 6165 4523, or 0400036914.

Yours sincerely,



Wes Ford
DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

NOTICE OF DETERMINATION

MAXIMUM PERMISSIBLE BIOMASS (TONNES PER HECTARE) OF FINFISH THAT MAY BE STOCKED WITHIN THE COMBINED AREA OF LEASE NOS. 133, 213, 215 AND 217, BEING AN AREA WITHIN THE AREA COVERED BY THE MACQUARIE HARBOUR MARINE FARMING DEVELOPMENT PLAN OCTOBER 2005

In accordance with Management Control 3.3.6 of the *Macquarie Harbour Marine Farming Development Plan October 2005* ("the Plan"), I revoke the biomass determination made by the Secretary on 28 April 2016 and replace it with the below determination.

In accordance with Management Control 3.3.6 of the *Macquarie Harbour Marine Farming Development Plan October 2005* ("the Plan"), I give notice to Petuna Aquaculture Pty Ltd, as the holder of the below mentioned leases that, pursuant to Management Control 3.3.5, I have determined that within the total area covered by all of the following leases:

- marine farming Lease No. 133,
- marine farming Lease No. 213,
- marine farming Lease No.215,
- marine farming Lease No. 217;

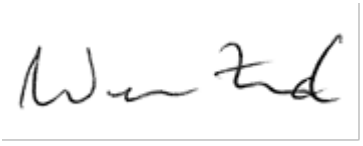
being an area within the area covered by the Plan, the maximum permissible biomass of marine farmed salmonids that may be stocked is as specified in column 2 of Table 1, in respect of the period specified in column 1 of that table.

Table 1

Period	**Maximum permissible biomass (tonnes per hectare) that may be stocked within the combined area of Lease Nos, 133, 213, 215 and 217**
14 February 2017- 30 April 2017	9.65

The date from which Petuna Aquaculture Pty Ltd must comply with my determination is 14 February, 2017.

Dated: 16 January 2017



Wes Ford
DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

STATEMENT OF REASONS FOR DETERMINATION MADE PURSUANT TO MANAGEMENT CONTROL 3.3.5 OF THE *MACQUARIE HARBOUR MARINE FARM DEVELOPMENT PLAN OCTOBER 2005*.

I, Wes Ford, Director, Environment Protection Authority provide this statement of reasons for my determination, pursuant to Management Control 3.3.5 of the *Macquarie Harbour Marine Farming Development Plan October 2005* (the Plan), of the maximum permissible biomass of finfish (tonnes per hectare) that may be stocked within specified areas within the Plan area.

Background

Marine farming in Macquarie Harbour occurs under the provisions of the *Marine Farming Planning Act 1995* (MFPA) and the *Living Marine Resources Management Act 1995*.

The MFPA *inter alia*, provides for the preparation of draft marine farming development plans. A draft marine farming development plan prescribes areas where marine farming may occur, the specific area of State Waters that may be the subject of a marine farming lease and the types of marine farming that may occur within a marine farming lease area.

The MFPA provides for the Minister to approve a draft marine farming development plan which must contain Management Controls to satisfactorily manage and mitigate negative effects.

Since 1 July 2016, the Minister for Primary Industries and Water and the Secretary have delegated their powers (as they relate to environmental management) under the MFPA to the Director, Environment Protection Authority.

Determination

On 16 January 2017 I, as delegate of the Secretary, determined pursuant to Management Control 3.3.5 of the *Macquarie Harbour Marine Farm Development Plan October 2005 (as amended May 2012)*, the maximum permissible biomass (tonnes per hectare) of finfish that may be stocked within specified areas within the Plan area (see Attachment 1).

In making my determination I noted the following:

1. The purpose and objectives of the MFPA are outlined at Section 4. Section 4(1)(b) states:

   (1) the purpose of the Act is to achieve well-planned sustainable development of marine farming activities having regard to the need to

   (b) minimise any adverse impact of marine farming activities

2. Section 4(2) states:

(2) A person must perform any function or exercise any power under this Act in a manner which furthers the objectives of resource management.

"Objectives of resource management" means the objectives set out in Schedule 1 to the MFPA- see section 3 of the Act.

3. The Plan was approved by the Minister on 18 August 2006.

4. Amendment No. 1 to the Plan was approved by the Minister on 28 May 2012.

5. Section 42(6)(a) of the MFPA states:

(6) If the Minister gives final approval to the draft amendment –

(a) the amendment as so approved prevails over an existing marine farming development plan to the extent of any inconsistency

6. Amendment No. 1 to the Plan, *inter alia* established Management Control 3.3.5 of the Plan which states:

The Secretary may from time to time, using whatever information the Secretary considers appropriate, determine the maximum permissible biomass (tonnes per hectare) of finfish that may be stocked within the area covered by this plan or any other specified area within the plan area.

7. On 9 November 2016 I received a briefing from Dr's Catriona McLeod and Jeff Ross from Institute of Marine and Antarctic Studies (IMAS) regarding the current research information for the harbour. This information was provided to the companies during the period 1-2 December 2017. The information will shortly be available as a Technical Report issued by IMAS

8. I met with representatives of Tassal Group Pty Ltd on (22 November 2016), Huon Aquaculture Group (16 November 2016) and Petuna Aquaculture Pty Ltd (24 November 2016), as leaseholders or holders of a sub-lease within Macquarie Harbour, to discuss the issues and my concerns about the status of the harbour. I advised them of my intention to make a maximum permissible biomass determination for each of the three companies operating marine farming leases in Macquarie Harbour.

9. On 21 November 2016, I wrote to Tassal Group Pty Ltd, Huon Aquaculture Group, Petuna Aquaculture Pty Ltd and Russfal Pty. Ltd., advising of my intention to progress the setting of a 2017 biomass limit for Macquarie Harbour.

10. On 29 November 2016, I wrote to Tassal Group Pty Ltd, Huon Aquaculture Group and Petuna Aquaculture Pty Ltd stating that I intended to issue a determination in January 2017 which would reduce the maximum permissible biomass of finfish in Macquarie Harbour for the period from 31 January 2017 to 30 April 2017. This letter extended an opportunity to the companies to provide me with any relevant specific lease / fish performance information that would further inform me in my consideration of future biomass levels of farmed finfish in Macquarie Harbour.

11. Submissions on the draft Macquarie Harbour biomass determinations were received from Tassal Group Pty Ltd on 22 December 2016, Huon Aquaculture Group on 3 January 2017, and Petuna Aquaculture Pty Ltd on 15 December 2016.

12. On 5 January 2017 I met with representatives from Tassal Group Pty Ltd as leaseholders or holders of a sub-lease in Macquarie Harbour and received a verbal briefing on relevant specific lease / fish performance information on behalf of those companies.

13. On 9 January 2017 I met with representatives from Huon Aquaculture Pty Ltd as leaseholders or holders of a sub-lease in Macquarie Harbour and received a verbal briefing on relevant specific lease / fish performance information on behalf of those companies.

In making my determination I had particular regard to the following material:

14. EPA Compliance Summary, Macquarie Harbour, September 2016 (http://epa.tas.gov.au/Documents/MH%20lease%20boundary%20compliance%20summary%20September%202016.pdf)

15. On 9 November 2016 the Institute of Marine and Antarctic Studies (IMAS) provided a verbal presentation to EPA Tasmania summarising the current level of knowledge regarding the ecological status of Macquarie Harbour utilising data collected by the EPA Tasmania, industry, IMAS, and the CSIRO through separate monitoring programs. This was subsequently summarised into a multi-page Advice Note.

16. 15 December 2016, written submission made by Petuna Aquaculture Pty Ltd

17. 22 December 2016, written submission made by Tassal Group Pty Ltd

18. 3 January 2017, written submission made by Huon Aquaculture Group

19. 13 January 2017, Final Draft IMAS Technical Report. (Environmental Research in Macquarie Harbour -Interim Synopsis of Benthic and Water Column Conditions: Jeff Ross & Catriona MacLeod. January 2017). Note, this will be publically available once it has been cleared for release by IMAS.

Following consideration of all relevant information and material, in the making of my determination I was satisfied that:

20. There has been a significant deterioration in the level of compliance with benthic indicators monitored through ongoing video survey monitoring. September 2016 benthic surveys assessed 90 compliance sites across nine Macquarie Harbour marine farm lease areas. Nineteen compliance sites across four leases were non-compliant for *Beggiatoa*. Survey results and details of management responses required by EPA Tasmania are provided in Attachment 2.

21. There has been a measurable increase in abundance and distribution of opportunistic polychaetes on the sediment surface within, and at increasing distances from, fish farms due to increase organic loads.

22. Long term monitoring of dissolved oxygen across Macquarie Harbour has revealed a steady decline in middle and bottom water oxygen concentrations since 2009 to the current extremely low levels which present a significant risk to the ecology of the harbour. A consequence of this is a significant decline in the abundance and diversity of benthic in-fauna in existing hypoxic zones. This threatens the sustainability of aquaculture through reduced benthic processing of organic waste from salmon pens. In terms of broader ecological processes within the Harbour, reductions in dissolved oxygen and in benthic in-fauna have negative implications for the endangered Maugean skate and other fauna.

23. Marine farmers in Macquarie Harbour continue to have divergent views with respect to appropriate biomass cap for farmed finfish in Macquarie Harbour.

24. The biomass aspirations of all companies growing salmonids in the Plan area has been considered.

25. The nominated biomass apportioned between Tassal Group Pty Ltd, Huon Aquaculture Group and Petuna Aquaculture Pty Ltd has been distributed on a percentage basis reflecting biomass as it existed in the harbour at the November 2016 reporting period, which was included as part of the submissions. The final determination differs from the draft determination which was based on estimated biomass from information supplied by the companies during October.

26. The date selected for commencement of the biomass determination reflects the practicalities of harvesting the fish that are present in Macquarie Harbour. In particular, Tassal advised that staff and equipment limitations would delay achievement of proposed maximum permissible biomass until two weeks past the proposed 31 January date.

27. The decision to determine a maximum biomass within lease areas in the area covered by the Plan does not provide a guarantee that all leaseholders or holders of a sub-lease can grow up to their maximum determined biomass level.

28. The biomass of fish that a salmonid grower chooses to grow will be influenced by a range of factors including individual lease site performance and the company's specific management strategies / commercial objectives.

29. The environment of the harbour is clearly subject to changes, both over short time-scales and longer-term.

30. It is the responsibility of the leaseholder or holder of a sub-lease to manage its biomass and stocking density levels within the constraints of regulation and the complex and highly variable background environmental conditions to ensure production and fish welfare are not compromised.

31. The industry provides significant employment and economic activity in the region. Short term impacts upon such activity need to be balanced against the importance of maintaining the productive capacity of the harbour in the long term.

32. I have determined that within the total area covered by marine farming leases 266, 219 & 214 the maximum permissible biomass of marine farmed salmonids that may be stocked by the Tassal Group over the period 14 February 2017 – 30 April 2017 is 25.35 tonnes per hectare. This is a reduction from the Secretary's determination of 28 April 2016 of 33.58 tonnes per hectare and reflects a short-term harvest strategy which will be reviewed at the end of the designated period.

33. I have determined that within the total area covered by marine farming leases 216, 220 & 267 the maximum permissible biomass of marine farmed salmonids that may be stocked by the Huon Aquaculture Group over the period 14 February 2017 – 30 April 2017 is 12.46 tonnes per hectare. This is a reduction from the Secretary's determination of 28 April 2016 of 20.44 tonnes per hectare and reflects a short-term harvest strategy which will be reviewed at the end of the designated period.

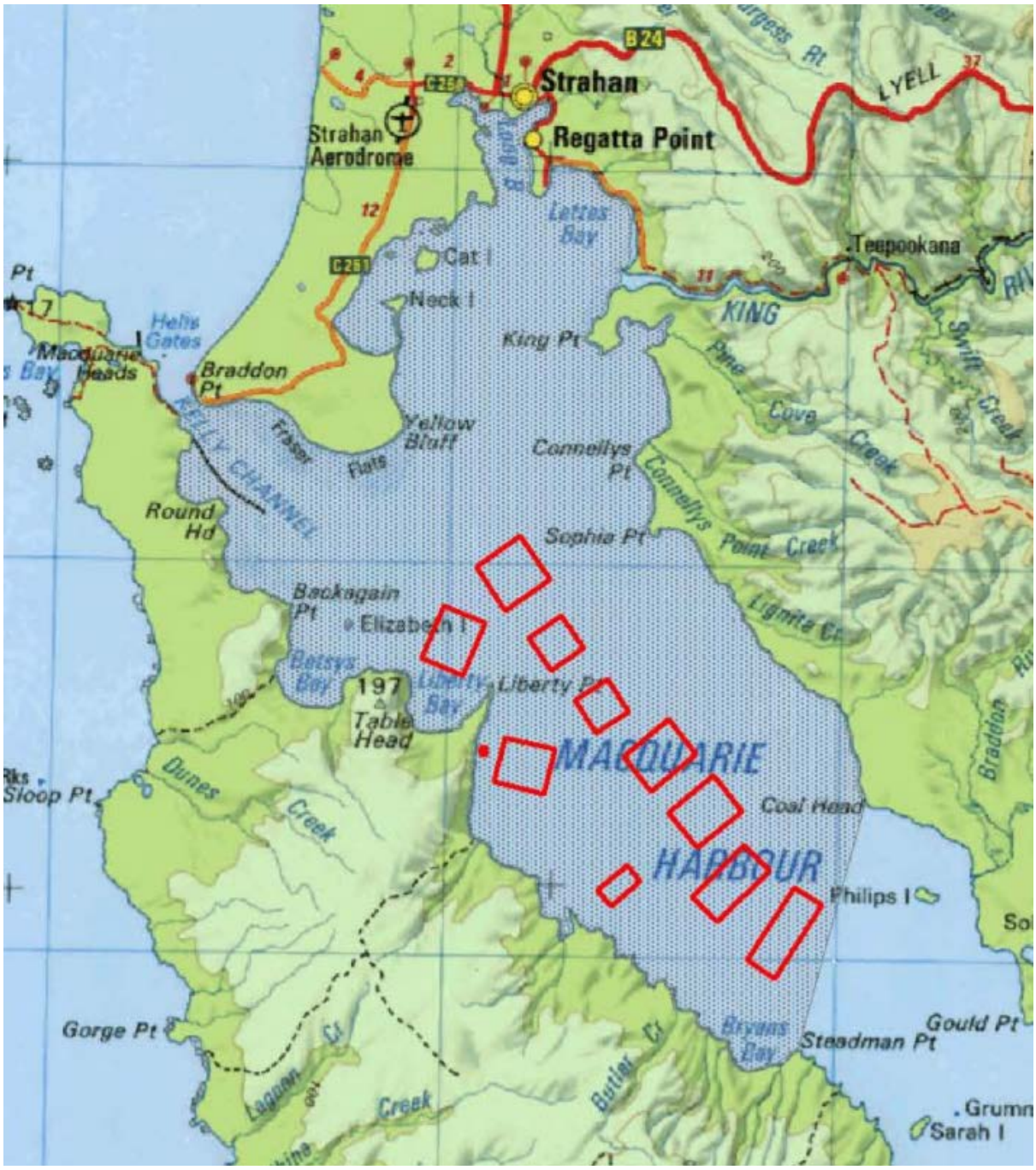
34. I have determined that within the total area covered by marine farming leases 133, 213, 215 & 217 the maximum permissible biomass of marine farmed salmonids that may be stocked by Petuna Aquaculture over the period 14 February 2017 – 30 April 2017 is 9.65 tonnes per hectare. This is a reduction from the Secretary's determination of 28 April 2016 of 17.79 tonnes per hectare and reflects a short-term harvest strategy which will be reviewed at the end of the designated period.

35. The submissions made by the companies, excluding commercial in confidence material, will be released with the statement of reasons for the biomass determinations for the period 1 May 2017 to 30 April 2020. As they provide information relating to determinations not yet made, it is not appropriate to make them available.

36. My determination results in a decrease in the total biomass of farmed salmonids that may be held in Macquarie Harbour of 34.9 percent below the Secretary's determination of 28 April 2016.

37. In making my determination I was further satisfied that it is consistent with the purpose of the MFPA as defined in section 4(1) and it furthers the objectives of resource management as required by section 4(2).

Attachment 1: Plan area *Macquarie Harbour Marine Farm Development Plan October 2005* and marine farming leases



Attachment 2: Results of the September benthic surveys and management responses

Marine Farming Licence Conditions relating to environmental management of finfish farms in Macquarie Harbour require compliance with environmental standards. One requirement is that there must be no significant visual impacts at, or extending beyond, 35 metres from the boundary of the lease area. Visual impacts from farming outside of marine farm lease areas are monitored by remotely operated vehicles with cameras surveying for benthic bacterial mats (Beggiatoa spp.) at compliance points located around lease areas at 35 metres from the boundary of the lease. Where Beggiatoa is detected at these points, additional +50m dives are conducted to map the extent of Beggiatoa. In the event that a significant visual impact is detected at any point 35 metres or more from the lease boundary, the licence holder may be required to undertake a triggered environmental survey or other remedial activity determined by the Director. Results tabulated below are limited to 35 metre compliance points

Operator	**Lease No.**	**No. of 35m Compliance Point surveys for each lease**	**No. of survey points found to be non-compliant for *Beggiatoa* in previous survey**	**No. of survey points found to be non-compliant for *Beggiatoa* in September 2016**	**Management Responses**
Petuna	133	9 in May 2016, 13 in Sept 2016	1 (May 16)	2	• Continue 4 monthly benthic video surveys • Ongoing pen fallowing requirements • Submission of lease stocking plan including contingency plan for reduced stocking
Petuna	213*	TBA for Jan 2017	No survey required	No survey required	• Repeat baseline survey undertaken October 2016 • Commence 4 monthly benthic video surveys in January
Petuna	215	6	0 (Jan 16)	1	• Increased frequency of benthic video surveys (2 monthly) • Ongoing pen fallowing requirements • Prepare benthic in-fauna environmental monitoring plan • Submission of lease stocking plan including contingency plan for reduced stocking
Petuna	217	5	0 (Jan 16)	0	• Continue 4 monthly benthic video surveys • Additional compliance sites
Tassal	214	11 in May 2016, 9 in Sept 2016	0 (May 16)	0	• Increased frequency of benthic video surveys (4 monthly) • Ongoing pen fallowing requirements • Pre-stocking benthic video surveys for other pen bays
Tassal	219	10	0 (May 16)	0	• Continue 4 monthly benthic video surveys • Pre-stocking benthic video surveys for additional sites within lease area
Tassal	266	22	3 (May 16)	14	• Harvest or destock lease by 1 March 2017. Plan to be provided to EPA by 30 November 2016. • Submission of lease stocking plan including contingency plan for reduced or zero stocking • 2017 year class and subsequent year class stocking restrictions • Increased frequency of benthic video surveys (monthly) • Prepare benthic in-fauna environmental monitoring plan
Huon Aquaculture	216**	4	0 (Jan 16)	0	• Increased frequency of benthic video surveys (4 monthly) • Ongoing pen fallowing requirements
Huon Aquaculture	220	10	0 (Jan 16)	0	• Increased frequency of benthic video surveys (4 monthly) • Ongoing pen fallowing requirements • Pre-stocking benthic video surveys for other pen bays

Huon Aquaculture	267	11	0 (Jan 16)	2	• Updated September benthic video survey report with additional spot dives • Site management plan to be provided to EPA • Increased frequency of benthic video surveys (4 monthly) • Ongoing pen fallowing requirements • Pre-stocking benthic video surveys for other pen bays

* Lease #213 was first stocked in 2016. First compliance survey will be required in January 2017.

** Lease #216 survey results relate only to the recently stocked area of the lease.

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Web: www.epa.tas.gov.au
Our Ref: EN-EM-PE-SM-251454-H633836

16 January 2017

Mr Mark Ryan
Tassal Group Ltd
GPO Box 1645
HOBART TAS 7001

Dear Mr Ryan,

I advised you on the 30 November 2016 of my intent to make new biomass determinations for Macquarie Harbour, and invited you to provide me with any submissions prior to me making those determinations. I am now making the biomass determination for the period from 14 February 2017 to 30 April 2017, which is attached, along with my statement or reasons for this determination. I will defer making the biomass determination for the period from 1 May 2017 to 30 April 2020, noting the intent to extend this by 12 months, until I have received and reviewed the January 2017 benthic sampling data.

I reiterate the need for these new determinations as I have been considering the very low levels of dissolved oxygen (DO) in the deeper waters of Macquarie Harbour, the extent of the presence of *Beggiatoa* species in the harbour currently, and its increase over the past six months. As you are aware, I have recently placed four leases under management directions resulting from varying degrees of non-compliance at 35 metre compliance points. While this action should reduce the impact at compliance points it is not likely to be sufficient to reduce the harbour wide effects.

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As a result of the combination of very low DO, the increase in *Beggiatoa,* the decline in faunal abundance in the vicinity of leases, and the general increase in the number of pen bays subject to directed fallowing, I believe that the biomass in the harbour needs to be reduced as quickly as practicable for this summer and that the biomass for the next three years needs to be less than what is currently in the harbour. As such, it is appropriate to make any determinations as early as is reasonably practicable to allow the companies to implement a planned reduction and to plan for the 2017 growing period.

I have advised the Government of these concerns and I provided Minister Rockliff with a copy of these determinations today.

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My decision making and management system needs to have regard to the objectives of the *Marine Farming Planning Act 1995*, and the Resource Management Planning System of Tasmania, as stated below. My proposed decisions seek to take account of the environmental, social and economic impacts associated with setting a sustainable management system for the harbour.

SCHEDULE 1 - Objectives of the resource management and planning system of Tasmania

Section 3

1. The objectives of the resource management and planning system of Tasmania are –

(a) to promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity; and

(b) to provide for the fair, orderly and sustainable use and development of air, land and water; and

(c) to encourage public involvement in resource management and planning; and

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2. In clause 1(a), ***sustainable development*** means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic and cultural well-being and for their health and safety while –

(a) sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations; and

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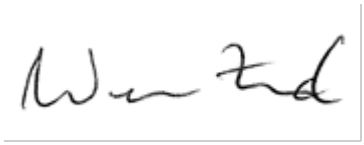
I will be publishing my determinations and statement of reasons on the EPA Tasmania website on 18 January 2017, recognising that you may need to advise your Board and shareholders of this decision.

If you have any queries regarding this letter, please do not hesitate to contact me on 6165 4523, or 0400036914.

Yours sincerely,



Wes Ford
DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

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MAXIMUM PERMISSIBLE BIOMASS (TONNES PER HECTARE) OF FINFISH THAT MAY BE STOCKED WITHIN THE COMBINED AREA OF LEASE NOS. 266, 219 AND 214, BEING AN AREA WITHIN THE AREA COVERED BY THE MACQUARIE HARBOUR MARINE FARMING DEVELOPMENT PLAN OCTOBER 2005

In accordance with Management Control 3.3.6 of the *Macquarie Harbour Marine Farming Development Plan October 2005* ("the Plan"), I revoke the biomass determination made by the Secretary on 28 April 2016 and replace it with the below determination.

In accordance with Management Control 3.3.6 of the *Macquarie Harbour Marine Farming Development Plan October 2005* ("the Plan"), I give notice to Tassal Operations Pty Ltd and Aquatas Pty Ltd, as the holders (either as the lessee or sub-lessee) of the below mentioned leases that, pursuant to Management Control 3.3.5, I have determined that within the total area covered by all of the following leases:

- marine farming Lease No. 266 (lessee-Tassal Operations Pty Ltd),
- marine farming Lease No. 219 (lessee-Aquatas Pty Ltd),
- marine farming Lease No.214 (sub-lessee-Tassal Operations Pty Ltd);

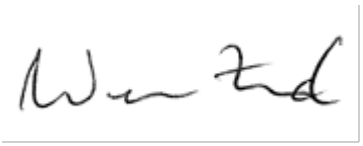
being an area within the area covered by the Plan, the maximum permissible biomass of marine farmed salmonids that may be stocked is as specified in column 2 of Table 1, in respect of the period specified in column 1 of that table.

Table 1

Period	**Maximum permissible biomass (tonnes per hectare) that may be stocked within the combined area of Lease Nos, 266, 219 and 214**
14 February 2017 to 30 April 2017	25.35

The date from which Tassal Operations Pty Ltd and Aquatas Pty Ltd must comply with my determination is 14 February, 2017.

Dated: 16 January 2017



Wes Ford
DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

STATEMENT OF REASONS FOR DETERMINATION MADE PURSUANT TO MANAGEMENT CONTROL 3.3.5 OF THE *MACQUARIE HARBOUR MARINE FARM DEVELOPMENT PLAN OCTOBER 2005*.

I, Wes Ford, Director, Environment Protection Authority provide this statement of reasons for my determination, pursuant to Management Control 3.3.5 of the *Macquarie Harbour Marine Farming Development Plan October 2005* (the Plan), of the maximum permissible biomass of finfish (tonnes per hectare) that may be stocked within specified areas within the Plan area.

Background

Marine farming in Macquarie Harbour occurs under the provisions of the *Marine Farming Planning Act 1995* (MFPA) and the *Living Marine Resources Management Act 1995*.

The MFPA *inter alia*, provides for the preparation of draft marine farming development plans. A draft marine farming development plan prescribes areas where marine farming may occur, the specific area of State Waters that may be the subject of a marine farming lease and the types of marine farming that may occur within a marine farming lease area.

The MFPA provides for the Minister to approve a draft marine farming development plan which must contain Management Controls to satisfactorily manage and mitigate negative effects.

Since 1 July 2016, the Minister for Primary Industries and Water and the Secretary have delegated their powers (as they relate to environmental management) under the MFPA to the Director, Environment Protection Authority.

Determination

On 16 January 2017 I, as delegate of the Secretary, determined pursuant to Management Control 3.3.5 of the *Macquarie Harbour Marine Farm Development Plan October 2005 (as amended May 2012)*, the maximum permissible biomass (tonnes per hectare) of finfish that may be stocked within specified areas within the Plan area (see Attachment 1).

In making my determination I noted the following:

1. The purpose and objectives of the MFPA are outlined at Section 4. Section 4(1)(b) states:

   (1) the purpose of the Act is to achieve well-planned sustainable development of marine farming activities having regard to the need to

   (b) minimise any adverse impact of marine farming activities

2. Section 4(2) states:
   (2) A person must perform any function or exercise any power under this Act in a manner which furthers the objectives of resource management.

   "Objectives of resource management" means the objectives set out in Schedule 1 to the MFPA- see section 3 of the Act.

3. The Plan was approved by the Minister on 18 August 2006.

4. Amendment No. 1 to the Plan was approved by the Minister on 28 May 2012.

5. Section 42(6)(a) of the MFPA states:

(6) If the Minister gives final approval to the draft amendment –

(a) the amendment as so approved prevails over an existing marine farming development plan to the extent of any inconsistency

6. Amendment No. 1 to the Plan, *inter alia* established Management Control 3.3.5 of the Plan which states:

The Secretary may from time to time, using whatever information the Secretary considers appropriate, determine the maximum permissible biomass (tonnes per hectare) of finfish that may be stocked within the area covered by this plan or any other specified area within the plan area.

7. On 9 November 2016 I received a briefing from Dr's Catriona McLeod and Jeff Ross from Institute of Marine and Antarctic Studies (IMAS) regarding the current research information for the harbour. This information was provided to the companies during the period 1-2 December 2017. The information will shortly be available as a Technical Report issued by IMAS

8. I met with representatives of Tassal Group Pty Ltd on (22 November 2016), Huon Aquaculture Group (16 November 2016) and Petuna Aquaculture Pty Ltd (24 November 2016), as leaseholders or holders of a sub-lease within Macquarie Harbour, to discuss the issues and my concerns about the status of the harbour. I advised them of my intention to make a maximum permissible biomass determination for each of the three companies operating marine farming leases in Macquarie Harbour.

9. On 21 November 2016, I wrote to Tassal Group Pty Ltd, Huon Aquaculture Group, Petuna Aquaculture Pty Ltd and Russfal Pty. Ltd., advising of my intention to progress the setting of a 2017 biomass limit for Macquarie Harbour.

10. On 29 November 2016, I wrote to Tassal Group Pty Ltd, Huon Aquaculture Group and Petuna Aquaculture Pty Ltd stating that I intended to issue a determination in January 2017 which would reduce the maximum permissible biomass of finfish in Macquarie Harbour for the period from 31 January 2017 to 30 April 2017. This letter extended an opportunity to the companies to provide me with any relevant specific lease / fish performance information that would further inform me in my consideration of future biomass levels of farmed finfish in Macquarie Harbour.

11. Submissions on the draft Macquarie Harbour biomass determinations were received from Tassal Group Pty Ltd on 22 December 2016, Huon Aquaculture Group on 3 January 2017, and Petuna Aquaculture Pty Ltd on 15 December 2016.

12. On 5 January 2017 I met with representatives from Tassal Group Pty Ltd as leaseholders or holders of a sub-lease in Macquarie Harbour and received a verbal briefing on relevant specific lease / fish performance information on behalf of those companies.

13. On 9 January 2017 I met with representatives from Huon Aquaculture Pty Ltd as leaseholders or holders of a sub-lease in Macquarie Harbour and received a verbal briefing on relevant specific lease / fish performance information on behalf of those companies.

In making my determination I had particular regard to the following material:

14. EPA Compliance Summary, Macquarie Harbour, September 2016 (http://epa.tas.gov.au/Documents/MH%20lease%20boundary%20compliance%20summary%20September%202016.pdf)

15. On 9 November 2016 the Institute of Marine and Antarctic Studies (IMAS) provided a verbal presentation to EPA Tasmania summarising the current level of knowledge regarding the ecological status of Macquarie Harbour utilising data collected by the EPA Tasmania, industry, IMAS, and the CSIRO through separate monitoring programs. This was subsequently summarised into a multi-page Advice Note.

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17. 22 December 2016, written submission made by Tassal Group Pty Ltd

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Following consideration of all relevant information and material, in the making of my determination I was satisfied that:

20. There has been a significant deterioration in the level of compliance with benthic indicators monitored through ongoing video survey monitoring. September 2016 benthic surveys assessed 90 compliance sites across nine Macquarie Harbour marine farm lease areas. Nineteen compliance sites across four leases were non-compliant for *Beggiatoa*. Survey results and details of management responses required by EPA Tasmania are provided in Attachment 2.

21. There has been a measurable increase in abundance and distribution of opportunistic polychaetes on the sediment surface within, and at increasing distances from, fish farms due to increase organic loads.

22. Long term monitoring of dissolved oxygen across Macquarie Harbour has revealed a steady decline in middle and bottom water oxygen concentrations since 2009 to the current extremely low levels which present a significant risk to the ecology of the harbour. A consequence of this is a significant decline in the abundance and diversity of benthic in-fauna in existing hypoxic zones. This threatens the sustainability of aquaculture through reduced benthic processing of organic waste from salmon pens. In terms of broader ecological processes within the Harbour, reductions in dissolved oxygen and in benthic in-fauna have negative implications for the endangered Maugean skate and other fauna.

23. Marine farmers in Macquarie Harbour continue to have divergent views with respect to appropriate biomass cap for farmed finfish in Macquarie Harbour.

24. The biomass aspirations of all companies growing salmonids in the Plan area has been considered.

25. The nominated biomass apportioned between Tassal Group Pty Ltd, Huon Aquaculture Group and Petuna Aquaculture Pty Ltd has been distributed on a percentage basis reflecting biomass as it existed in the harbour at the November 2016 reporting period, which was included as part of the submissions. The final determination differs from the draft determination which was based on estimated biomass from information supplied by the companies during October.

26. The date selected for commencement of the biomass determination reflects the practicalities of harvesting the fish that are present in Macquarie Harbour. In particular, Tassal advised that staff and equipment limitations would delay achievement of proposed maximum permissible biomass until two weeks past the proposed 31 January date.

27. The decision to determine a maximum biomass within lease areas in the area covered by the Plan does not provide a guarantee that all leaseholders or holders of a sub-lease can grow up to their maximum determined biomass level.

28. The biomass of fish that a salmonid grower chooses to grow will be influenced by a range of factors including individual lease site performance and the company's specific management strategies / commercial objectives.

29. The environment of the harbour is clearly subject to changes, both over short time-scales and longer-term.

30. It is the responsibility of the leaseholder or holder of a sub-lease to manage its biomass and stocking density levels within the constraints of regulation and the complex and highly variable background environmental conditions to ensure production and fish welfare are not compromised.

31. The industry provides significant employment and economic activity in the region. Short term impacts upon such activity need to be balanced against the importance of maintaining the productive capacity of the harbour in the long term.

32. I have determined that within the total area covered by marine farming leases 266, 219 & 214 the maximum permissible biomass of marine farmed salmonids that may be stocked by the Tassal Group over the period 14 February 2017 – 30 April 2017 is 25.35 tonnes per hectare. This is a reduction from the Secretary's determination of 28 April 2016 of 33.58 tonnes per hectare and reflects a short-term harvest strategy which will be reviewed at the end of the designated period.

33. I have determined that within the total area covered by marine farming leases 216, 220 & 267 the maximum permissible biomass of marine farmed salmonids that may be stocked by the Huon Aquaculture Group over the period 14 February 2017 – 30 April 2017 is 12.46 tonnes per hectare. This is a reduction from the Secretary's determination of 28 April 2016 of 20.44 tonnes per hectare and reflects a short-term harvest strategy which will be reviewed at the end of the designated period.

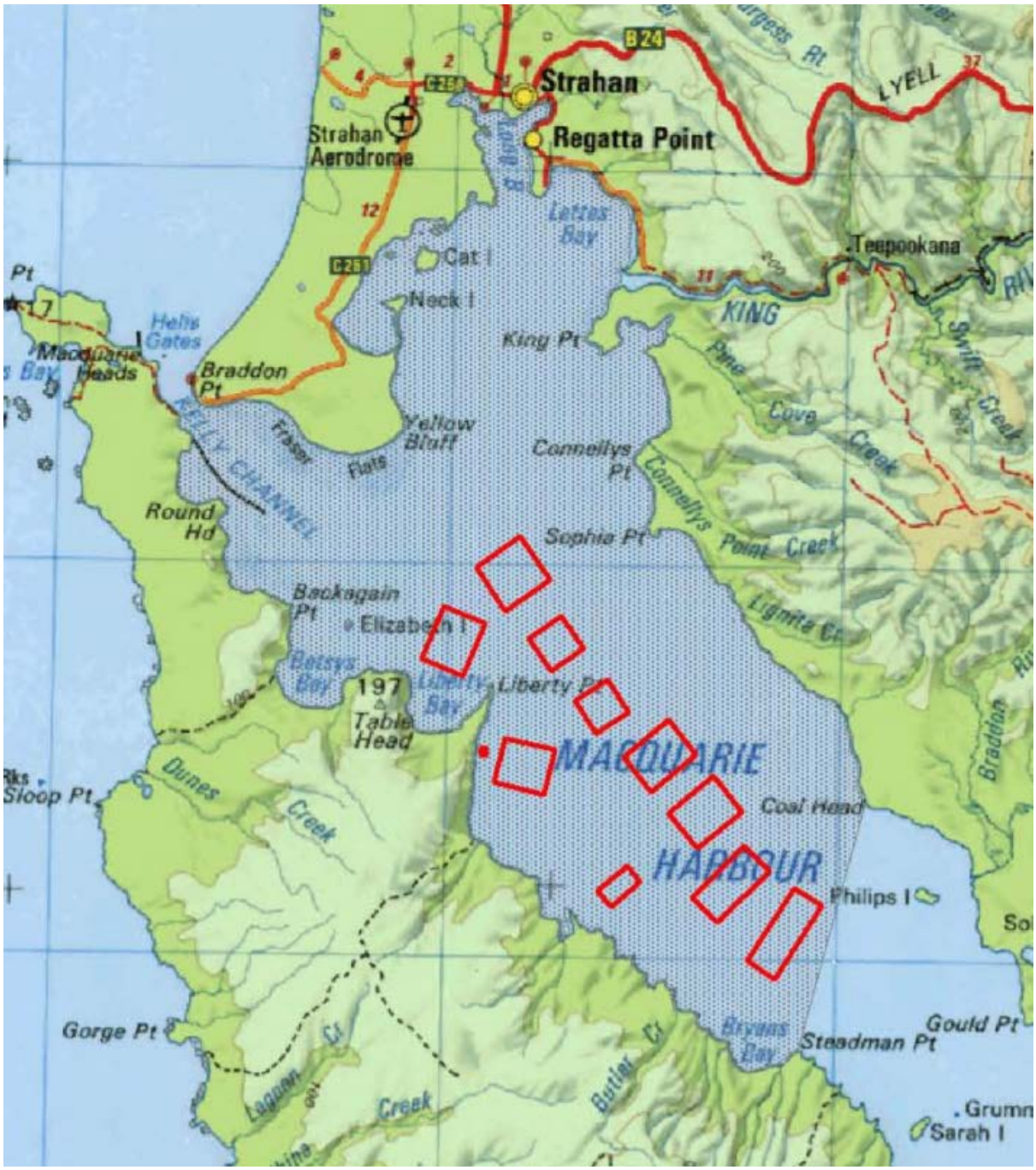
34. I have determined that within the total area covered by marine farming leases 133, 213, 215 & 217 the maximum permissible biomass of marine farmed salmonids that may be stocked by Petuna Aquaculture over the period 14 February 2017 – 30 April 2017 is 9.65 tonnes per hectare. This is a reduction from the Secretary's determination of 28 April 2016 of 17.79 tonnes per hectare and reflects a short-term harvest strategy which will be reviewed at the end of the designated period.

35. The submissions made by the companies, excluding commercial in confidence material, will be released with the statement of reasons for the biomass determinations for the period 1 May 2017 to 30 April 2020. As they provide information relating to determinations not yet made, it is not appropriate to make them available.

36. My determination results in a decrease in the total biomass of farmed salmonids that may be held in Macquarie Harbour of 34.9 percent below the Secretary's determination of 28 April 2016.

37. In making my determination I was further satisfied that it is consistent with the purpose of the MFPA as defined in section 4(1) and it furthers the objectives of resource management as required by section 4(2).

Attachment 1: Plan area *Macquarie Harbour Marine Farm Development Plan October 2005* and marine farming leases



Attachment 2: Results of the September benthic surveys and management responses

Marine Farming Licence Conditions relating to environmental management of finfish farms in Macquarie Harbour require compliance with environmental standards. One requirement is that there must be no significant visual impacts at, or extending beyond, 35 metres from the boundary of the lease area. Visual impacts from farming outside of marine farm lease areas are monitored by remotely operated vehicles with cameras surveying for benthic bacterial mats (Beggiatoa spp.) at compliance points located around lease areas at 35 metres from the boundary of the lease. Where Beggiatoa is detected at these points, additional +50m dives are conducted to map the extent of Beggiatoa. In the event that a significant visual impact is detected at any point 35 metres or more from the lease boundary, the licence holder may be required to undertake a triggered environmental survey or other remedial activity determined by the Director. Results tabulated below are limited to 35 metre compliance points

Operator	**Lease No.**	**No. of 35m Compliance Point surveys for each lease**	**No. of survey points found to be non-compliant for *Beggiatoa* in previous survey**	**No. of survey points found to be non-compliant for *Beggiatoa* in September 2016**	**Management Responses**
Petuna	133	9 in May 2016, 13 in Sept 2016	1 (May 16)	2	• Continue 4 monthly benthic video surveys • Ongoing pen fallowing requirements • Submission of lease stocking plan including contingency plan for reduced stocking
Petuna	213*	TBA for Jan 2017	No survey required	No survey required	• Repeat baseline survey undertaken October 2016 • Commence 4 monthly benthic video surveys in January
Petuna	215	6	0 (Jan 16)	1	• Increased frequency of benthic video surveys (2 monthly) • Ongoing pen fallowing requirements • Prepare benthic in-fauna environmental monitoring plan • Submission of lease stocking plan including contingency plan for reduced stocking
Petuna	217	5	0 (Jan 16)	0	• Continue 4 monthly benthic video surveys • Additional compliance sites
Tassal	214	11 in May 2016, 9 in Sept 2016	0 (May 16)	0	• Increased frequency of benthic video surveys (4 monthly) • Ongoing pen fallowing requirements • Pre-stocking benthic video surveys for other pen bays
Tassal	219	10	0 (May 16)	0	• Continue 4 monthly benthic video surveys • Pre-stocking benthic video surveys for additional sites within lease area
Tassal	266	22	3 (May 16)	14	• Harvest or destock lease by 1 March 2017. Plan to be provided to EPA by 30 November 2016. • Submission of lease stocking plan including contingency plan for reduced or zero stocking • 2017 year class and subsequent year class stocking restrictions • Increased frequency of benthic video surveys (monthly) • Prepare benthic in-fauna environmental monitoring plan
Huon Aquaculture	216**	4	0 (Jan 16)	0	• Increased frequency of benthic video surveys (4 monthly) • Ongoing pen fallowing requirements
Huon Aquaculture	220	10	0 (Jan 16)	0	• Increased frequency of benthic video surveys (4 monthly) • Ongoing pen fallowing requirements • Pre-stocking benthic video surveys for other pen bays

Huon Aquaculture	267	11	0 (Jan 16)	2	• Updated September benthic video survey report with additional spot dives • Site management plan to be provided to EPA • Increased frequency of benthic video surveys (4 monthly) • Ongoing pen fallowing requirements • Pre-stocking benthic video surveys for other pen bays

* Lease #213 was first stocked in 2016. First compliance survey will be required in January 2017.

** Lease #216 survey results relate only to the recently stocked area of the lease.

Level 6, 134 Macquarie Street, Hobart TAS
GPO Box 1550, Hobart, TAS 7001 Australia

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Web: www.epa.tas.gov.au
Our Ref: EN-EM-PE-SM-251454- H633749

16 January 2017

Mr Peter Bender
Huon Aquaculture Group
PO Box 42
DOVER, TAS 7117

Dear Mr Bender,

I advised you on the 30 November 2016 of my intent to make new biomass determinations for Macquarie Harbour, and invited you to provide me with any submissions prior to me making those determinations. I am now making the biomass determination for the period from 14 February 2017 to 30 April 2017, which is attached, along with my statement or reasons for this determination. I will defer making the biomass determination for the period from 1 May 2017 to 30 April 2020, noting the intent to extend this by 12 months, until I have received and reviewed the January 2017 benthic sampling data.

I reiterate the need for these new determinations as I have been considering the very low levels of dissolved oxygen (DO) in the deeper waters of Macquarie Harbour, the extent of the presence of *Beggiatoa* species in the harbour currently, and its increase over the past six months. As you are aware, I have recently placed four leases under management directions resulting from varying degrees of non-compliance at 35 metre compliance points. While this action should reduce the impact at compliance points it is not likely to be sufficient to reduce the harbour wide effects.

The very low levels of dissolved oxygen in the deeper waters are likely to be contributing to the spread of *Beggiatoa* and a change to the in-fauna ecology in the vicinity of the leases. IMAS research undertaken in October shows that there has been a significant decline in in-faunal abundance in the vicinity of all four leases sampled. The first part of this information, relating to two leases, has been provided to you via a presentation and the document I sent to you. IMAS have advised me that the full document will be available shortly as an IMAS Technical Report, (Environmental Research in Macquarie Harbour - Interim Synopsis of Benthic and Water Column Conditions: Jeff Ross & Catriona MacLeod. January 2017). I have included a near final confidential draft for your information, this is not for release.

As a result of the combination of very low DO, the increase in *Beggiatoa,* the decline in faunal abundance in the vicinity of leases, and the general increase in the number of pen bays subject to directed fallowing, I believe that the biomass in the harbour needs to be reduced as quickly as practicable for this summer and that the biomass for the next three years needs to be less than what is currently in the harbour. As such, it is appropriate to make any determinations as early as is reasonably practicable to allow the companies to implement a planned reduction and to plan for the 2017 growing period.

I have advised the Government of these concerns and I provided Minister Rockliff with a copy of these determinations today.

I note that from information provided by the three companies the standing biomass at 31 January 2017, will be slightly more than 14,000 tonnes. The additional two weeks provided to achieve the biomass limit is in recognition that Tassal would not be able to achieve allocated biomass limit by 31 January due to later commencement of harvest strategy, as detailed in their submission. The variation in the biomass limit allocated on a tonnes per hectare basis is due to the determination being based on the actual biomass in the water at the end of November, rather than the estimate of that figure used in my draft determination.

My decision making and management system needs to have regard to the objectives of the *Marine Farming Planning Act 1995*, and the Resource Management Planning System of Tasmania, as stated below. My proposed decisions seek to take account of the environmental, social and economic impacts associated with setting a sustainable management system for the harbour.

SCHEDULE 1 - Objectives of the resource management and planning system of Tasmania

Section 3

1. The objectives of the resource management and planning system of Tasmania are –

(a) to promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity; and

(b) to provide for the fair, orderly and sustainable use and development of air, land and water; and

(c) to encourage public involvement in resource management and planning; and

(d) to facilitate economic development in accordance with the objectives set out in paragraphs (a), (b) and (c); and

(e) to promote the sharing of responsibility for resource management and planning between the different spheres of Government, the community and industry in the State.

2. In clause 1(a), ***sustainable development*** means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic and cultural well-being and for their health and safety while –

(a) sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations; and

(b) safeguarding the life-supporting capacity of air, water, soil and ecosystems; and

(c) avoiding, remedying or mitigating any adverse effects of activities on the environment.

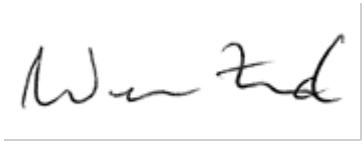
I recognise that we will not agree on all aspects of my proposed determinations, but my role is to make a set of management decisions that are supported by the science and what the data is showing is occurring in the harbour, and be consistent with the RMPS.

I will not be releasing the submissions you have provided until I complete the process and make the second determination. The submissions are mainly focused on the longer term management and as such form part of the material that is still under consideration. Where appropriate relevant parts of these submissions are referred to in my statement of reasons.

I will be publishing my determinations and statement of reasons on the EPA Tasmania website on 18 January 2017, recognising that you may need to advise your Board and shareholders of this decision.

If you have any queries regarding this letter, please do not hesitate to contact me on 6165 4523, or 0400036914.

Yours sincerely,



Wes Ford
DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

NOTICE OF DETERMINATION

MAXIMUM PERMISSIBLE BIOMASS (TONNES PER HECTARE) OF FINFISH THAT MAY BE STOCKED WITHIN THE COMBINED AREA OF LEASE NOS. 216, 220 AND 267, BEING AN AREA WITHIN THE AREA COVERED BY THE MACQUARIE HARBOUR MARINE FARMING DEVELOPMENT PLAN OCTOBER 2005

In accordance with Management Control 3.3.6 of the *Macquarie Harbour Marine Farming Development Plan October 2005* ("the Plan"), I revoke the biomass determination made by the Secretary on 28 April 2016 and replace it with the below determination.

In accordance with Management Control 3.3.6 of the *Macquarie Harbour Marine Farming Development Plan October 2005* ("the Plan"), I give notice to Huon Aquaculture Company Pty Ltd and Southern Ocean Trout Pty Ltd, as the holders (either as the lessee or sub-lessee) of the below mentioned leases that, pursuant to Management Control 3.3.5, I have determined that within the total area covered by all of the following leases:

- marine farming Lease No. 216 (sub-lessee-Huon Aquaculture Company Pty Ltd),
- marine farming Lease No. 220 (lessee-Southern Ocean Trout Pty Ltd),
- marine farming Lease No. 267 (lessee-Southern Ocean Trout Pty Ltd);

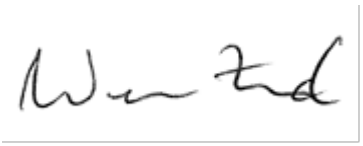
being an area within the area covered by the Plan, the maximum permissible biomass of marine farmed salmonids that may be stocked is as specified in column 2 of Table 1, in respect of the period specified in column 1 of that table.

Table 1

Period	**Maximum permissible biomass (tonnes per hectare) that may be stocked within the combined area of Lease Nos, 216, 220 and 267**
14 February 2017 – 30 April 2017	12.56

The date from which Huon Aquaculture Company Pty Ltd and Southern Ocean Trout Pty Ltd must comply with my determination is 14 February, 2017.

Dated: 16 January 2017



Wes Ford
DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

STATEMENT OF REASONS FOR DETERMINATION MADE PURSUANT TO MANAGEMENT CONTROL 3.3.5 OF THE *MACQUARIE HARBOUR MARINE FARM DEVELOPMENT PLAN OCTOBER 2005*.

I, Wes Ford, Director, Environment Protection Authority provide this statement of reasons for my determination, pursuant to Management Control 3.3.5 of the *Macquarie Harbour Marine Farming Development Plan October 2005* (the Plan), of the maximum permissible biomass of finfish (tonnes per hectare) that may be stocked within specified areas within the Plan area.

Background

Marine farming in Macquarie Harbour occurs under the provisions of the *Marine Farming Planning Act 1995* (MFPA) and the *Living Marine Resources Management Act 1995*.

The MFPA *inter alia*, provides for the preparation of draft marine farming development plans. A draft marine farming development plan prescribes areas where marine farming may occur, the specific area of State Waters that may be the subject of a marine farming lease and the types of marine farming that may occur within a marine farming lease area.

The MFPA provides for the Minister to approve a draft marine farming development plan which must contain Management Controls to satisfactorily manage and mitigate negative effects.

Since 1 July 2016, the Minister for Primary Industries and Water and the Secretary have delegated their powers (as they relate to environmental management) under the MFPA to the Director, Environment Protection Authority.

Determination

On 16 January 2017 I, as delegate of the Secretary, determined pursuant to Management Control 3.3.5 of the *Macquarie Harbour Marine Farm Development Plan October 2005 (as amended May 2012)*, the maximum permissible biomass (tonnes per hectare) of finfish that may be stocked within specified areas within the Plan area (see Attachment 1).

In making my determination I noted the following:

1. The purpose and objectives of the MFPA are outlined at Section 4. Section 4(1)(b) states:

   (1) the purpose of the Act is to achieve well-planned sustainable development of marine farming activities having regard to the need to

   (b) minimise any adverse impact of marine farming activities

2. Section 4(2) states:
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The Secretary may from time to time, using whatever information the Secretary considers appropriate, determine the maximum permissible biomass (tonnes per hectare) of finfish that may be stocked within the area covered by this plan or any other specified area within the plan area.

7. On 9 November 2016 I received a briefing from Dr's Catriona McLeod and Jeff Ross from Institute of Marine and Antarctic Studies (IMAS) regarding the current research information for the harbour. This information was provided to the companies during the period 1-2 December 2017. The information will shortly be available as a Technical Report issued by IMAS

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Following consideration of all relevant information and material, in the making of my determination I was satisfied that:

20. There has been a significant deterioration in the level of compliance with benthic indicators monitored through ongoing video survey monitoring. September 2016 benthic surveys assessed 90 compliance sites across nine Macquarie Harbour marine farm lease areas. Nineteen compliance sites across four leases were non-compliant for *Beggiatoa*. Survey results and details of management responses required by EPA Tasmania are provided in Attachment 2.

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31. The industry provides significant employment and economic activity in the region. Short term impacts upon such activity need to be balanced against the importance of maintaining the productive capacity of the harbour in the long term.

32. I have determined that within the total area covered by marine farming leases 266, 219 & 214 the maximum permissible biomass of marine farmed salmonids that may be stocked by the Tassal Group over the period 14 February 2017 – 30 April 2017 is 25.35 tonnes per hectare. This is a reduction from the Secretary's determination of 28 April 2016 of 33.58 tonnes per hectare and reflects a short-term harvest strategy which will be reviewed at the end of the designated period.

33. I have determined that within the total area covered by marine farming leases 216, 220 & 267 the maximum permissible biomass of marine farmed salmonids that may be stocked by the Huon Aquaculture Group over the period 14 February 2017 – 30 April 2017 is 12.46 tonnes per hectare. This is a reduction from the Secretary's determination of 28 April 2016 of 20.44 tonnes per hectare and reflects a short-term harvest strategy which will be reviewed at the end of the designated period.

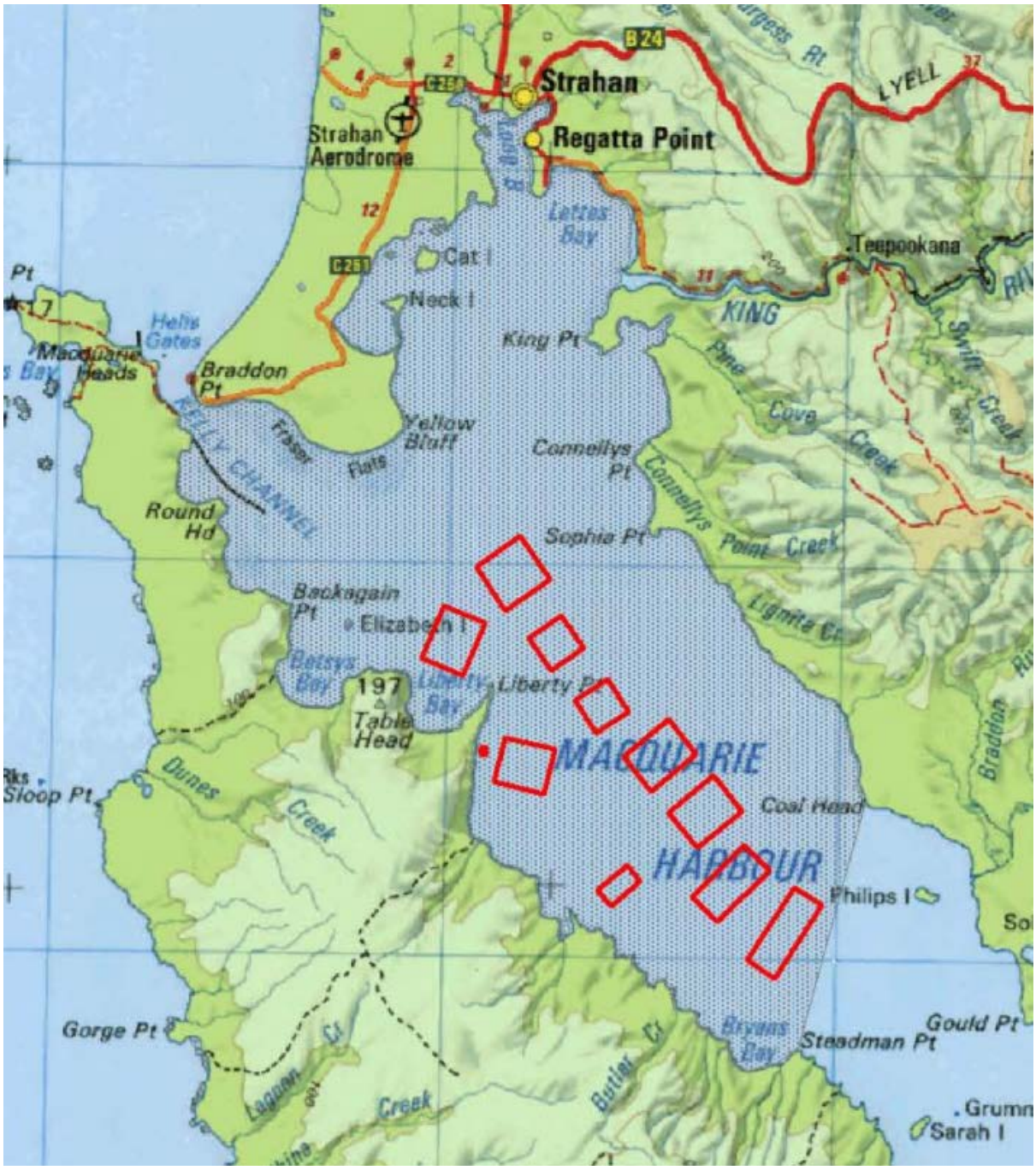
34. I have determined that within the total area covered by marine farming leases 133, 213, 215 & 217 the maximum permissible biomass of marine farmed salmonids that may be stocked by Petuna Aquaculture over the period 14 February 2017 – 30 April 2017 is 9.65 tonnes per hectare. This is a reduction from the Secretary's determination of 28 April 2016 of 17.79 tonnes per hectare and reflects a short-term harvest strategy which will be reviewed at the end of the designated period.

35. The submissions made by the companies, excluding commercial in confidence material, will be released with the statement of reasons for the biomass determinations for the period 1 May 2017 to 30 April 2020. As they provide information relating to determinations not yet made, it is not appropriate to make them available.

36. My determination results in a decrease in the total biomass of farmed salmonids that may be held in Macquarie Harbour of 34.9 percent below the Secretary's determination of 28 April 2016.

37. In making my determination I was further satisfied that it is consistent with the purpose of the MFPA as defined in section 4(1) and it furthers the objectives of resource management as required by section 4(2).

Attachment 1: Plan area *Macquarie Harbour Marine Farm Development Plan October 2005* and marine farming leases



Attachment 2: Results of the September benthic surveys and management responses

Marine Farming Licence Conditions relating to environmental management of finfish farms in Macquarie Harbour require compliance with environmental standards. One requirement is that there must be no significant visual impacts at, or extending beyond, 35 metres from the boundary of the lease area. Visual impacts from farming outside of marine farm lease areas are monitored by remotely operated vehicles with cameras surveying for benthic bacterial mats (Beggiatoa spp.) at compliance points located around lease areas at 35 metres from the boundary of the lease. Where Beggiatoa is detected at these points, additional +50m dives are conducted to map the extent of Beggiatoa. In the event that a significant visual impact is detected at any point 35 metres or more from the lease boundary, the licence holder may be required to undertake a triggered environmental survey or other remedial activity determined by the Director. Results tabulated below are limited to 35 metre compliance points

Operator	**Lease No.**	**No. of 35m Compliance Point surveys for each lease**	**No. of survey points found to be non-compliant for *Beggiatoa* in previous survey**	**No. of survey points found to be non-compliant for *Beggiatoa* in September 2016**	**Management Responses**
Petuna	133	9 in May 2016, 13 in Sept 2016	1 (May 16)	2	• Continue 4 monthly benthic video surveys • Ongoing pen fallowing requirements • Submission of lease stocking plan including contingency plan for reduced stocking
Petuna	213*	TBA for Jan 2017	No survey required	No survey required	• Repeat baseline survey undertaken October 2016 • Commence 4 monthly benthic video surveys in January
Petuna	215	6	0 (Jan 16)	1	• Increased frequency of benthic video surveys (2 monthly) • Ongoing pen fallowing requirements • Prepare benthic in-fauna environmental monitoring plan • Submission of lease stocking plan including contingency plan for reduced stocking
Petuna	217	5	0 (Jan 16)	0	• Continue 4 monthly benthic video surveys • Additional compliance sites
Tassal	214	11 in May 2016, 9 in Sept 2016	0 (May 16)	0	• Increased frequency of benthic video surveys (4 monthly) • Ongoing pen fallowing requirements • Pre-stocking benthic video surveys for other pen bays
Tassal	219	10	0 (May 16)	0	• Continue 4 monthly benthic video surveys • Pre-stocking benthic video surveys for additional sites within lease area
Tassal	266	22	3 (May 16)	14	• Harvest or destock lease by 1 March 2017. Plan to be provided to EPA by 30 November 2016. • Submission of lease stocking plan including contingency plan for reduced or zero stocking • 2017 year class and subsequent year class stocking restrictions • Increased frequency of benthic video surveys (monthly) • Prepare benthic in-fauna environmental monitoring plan
Huon Aquaculture	216**	4	0 (Jan 16)	0	• Increased frequency of benthic video surveys (4 monthly) • Ongoing pen fallowing requirements
Huon Aquaculture	220	10	0 (Jan 16)	0	• Increased frequency of benthic video surveys (4 monthly) • Ongoing pen fallowing requirements • Pre-stocking benthic video surveys for other pen bays

Huon Aquaculture	267	11	0 (Jan 16)	2	• Updated September benthic video survey report with additional spot dives • Site management plan to be provided to EPA • Increased frequency of benthic video surveys (4 monthly) • Ongoing pen fallowing requirements • Pre-stocking benthic video surveys for other pen bays

* Lease #213 was first stocked in 2016. First compliance survey will be required in January 2017.

** Lease #216 survey results relate only to the recently stocked area of the lease.