

27 February 2015

Marlborough District Council  
PO Box 443  
BLLENHEIM 7240

Attention: Dr Steve Urlich

## 2014 Annual Monitoring Reports

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- I attach a copy of the 2014 monitoring reports for all farms. Overall, the results are good. This letter outlines our interim decisions on farm management as a result of the reports. We look forward to receiving any comments.

### Interpretation of Results – Benthic

- The below table gives a summary of compliance with seabed monitoring conditions. An outline of how results should be interpreted was set out in a letter from Gascoigne Wicks to Andrew Besley on October 30th 2013. A further copy of that letter is attached.
- It is critical for each report to be read as a whole. The approach taken to monitoring the seabed looks at a series of environmental indicators, and weighs them according to their importance. The same weighting has been applied as in 2013.

Farm	Pen	Middle Zone	Outer Zone
Otanerau	Compliant	Compliant	Compliant
Ruakaka	Compliant	Compliant	Compliant
Waihinau	Compliant	Not monitored in 2014*	Compliant
Te Pangu	Compliant	Compliant	Compliant at 300m NW boundary
			Potential Issue at 300m NE boundary
Forsyth	Compliant (indicator)**	Compliant (indicator)**	Potential Issue (indicator)**
MFL048	Site not used in 2014***	Site not used in 2014***	Site not used in 2014***
MFL032	Site not used in 2014***	Site not used in 2014***	Site not used in 2014***
Clay Point	Compliant	Potential Issue at 90mE boundary	Borderline
		Compliant	Compliant

\*Monitoring at Waihinau Bay is undertaken voluntarily by NZ King Salmon. In 2014 the middle zone boundary was not monitored, consistent with the Annual Monitoring Plan and recently promulgated Best Practice Guidelines.

\*\*Indicator monitoring was undertaken at Forsyth in 2014 given the site was not used during the year.

\*\*\*NZ King Salmon has obtained a variation to the consents applying to these sites. As a result, annual monitoring and reporting is not required while the sites are not in use.

- The results overall suggest the seabed is in good health. Particular farms are addressed below.

#### *Forsyth*

- A high sediment chemistry reading was identified at the outer boundary of the Forsyth farm. The Cawthron Institute has suggested that this result may be an outcome of the reduced 'indicator' monitoring undertaken, rather than a true representation of conditions at the site. The farm was fallowed throughout all of 2014.

6. The Forsyth site continues to be followed at this stage, however it may be used later in 2015. If production recommences this year we intend to undertake a full suite of annual monitoring in November to confirm the 2014 outer boundary result is anomalous.

#### *Te Pangu*

7. An issue has been identified at the 300m NE boundary at Te Pangu. The Cawthron Institute suggest this is likely to be a result of resuspension and accumulation of farm bio-deposits caused by the local hydrodynamic eddy feature. The reading is likely to be highly localised.
8. We have recently applied to re-consent the Te Pangu salmon farm. Investigations undertaken as part of that process have confirmed the eddy is likely to have an impact on the depositional footprint. Revised pen locations and a proposed outer limit of effect are intended to address this issue.

#### *Clay Point*

9. Issues have been identified at the 90mE boundary at Clay Point. The 300mE boundary is consistent with the required ES within the margin of error.
10. We have engaged the Cawthron Institute to undertake further monitoring of the middle and outer zone boundary at Clay Point. The results of that additional monitoring will inform the proposed management response.

#### **Interpretation of Results – Water Column**

11. The water column results at all farms suggest there are no compliance issues.

#### **Interpretation of Results – Copper and Zinc**

12. We continue to monitor copper and zinc concentrations beneath all farms, however consents do not set a maximum level of impact.
13. This year's results suggest copper levels at all sites are now either below ANZECC ISQG-Low levels or have reduced from 2013. No copper based antifouling was used in 2014 and we intend to avoid the use of copper antifouling again in 2015. This should cause levels of residual copper to further reduce.
14. We switched to the use of organic zinc at all farms in 2012, which is intended reduce zinc inputs into the environment long term. In 2014, zinc levels above ISQG-High guidelines were identified at Otanerau and Forsyth. At Otanerau, the bio available fraction of zinc was below the ISQG-High guidelines and had reduced from 2013. At Forsyth levels remained below their 2012 peak.
15. Zinc levels at and Ruakaka , Waihinau and Clay Point exceeded ISQG- low guidelines. At Ruakaka and Waihinau levels had reduced from 2013. There was a slight increase in zinc at Clay Point.
16. We will monitor zinc levels again in November 2015, although at most sites levels are now reducing. If levels remain high the possibility of a non-farm derived enrichment source may need to be considered.

Yours sincerely,

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Mark Gillard  
Environmental Compliance Manager