## ASC GLOBAL REVIEW: AUSTRALIA SUMMARY



Australia accounts for just six per cent of all global ASC certified production. However, it has the largest amount of production certified, relative to their industry size, at 66 per cent (40,491mT out of 60,758mT in 2017).¹ All three major salmon farming companies have at least some of their farms certified.

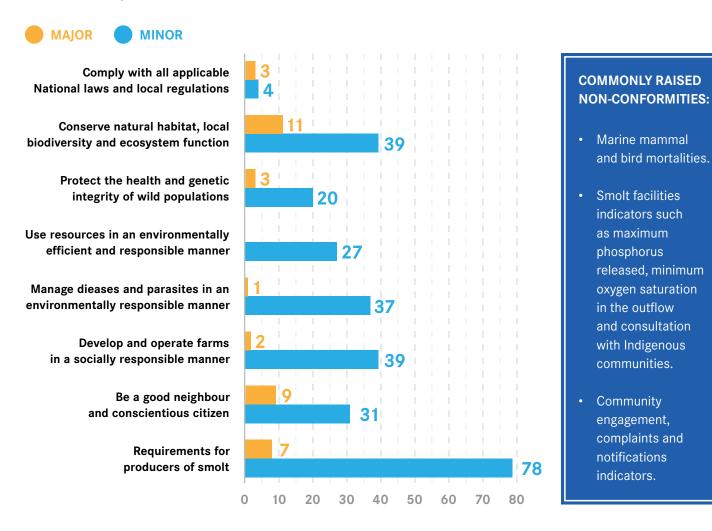
# ASC certified production ant or 66 Certified

#### **ANALYSIS**

#### **FARM CONFORMANCE**

Twenty-One Australian ASC certified farms were reviewed. On review of 28 audits (11 initial; 13 surveillance; 4 re-certification), 36 major non-conformities and 275 minors were raised. On average, an Australian audit had 1.2 major and 9.8 minor non-conformities.

#### **AUSTRALIA: MAJOR AND MINOR NON-CONFORMITIES BY PRINCIPLE**



#### FARM PERFORMANCE

No farms had an area-based management agreement that fully complied with all Standard requirements. Farms remained certified despite breaching one of the following criteria limits: a major escape event, marine mammal deaths and/or high unexplained fish mortality rates. Antibiotic use per production cycle is likely to be higher than reported as intermediary (i.e. smolt sites) are not included in audits. Tasmanian farms successfully met the Standard's fish feed dependency ratios.

#### **MANAGEMENT** (ABM)

AREA-BASED An Area Management Agreement (AMA) exists for Macquarie Harbour (MH) farms, where the three major Tasmanian producers all have leases, but the AMA does not fully meet the ASC Standard's Appendix II-1 requirements. Data on stocking, medical treatments, disease and pathogen monitoring are required to be collected in a central AMA database which feeds monthly and annual reports.3 However, while the AMA requires a Fish Health and Environmental Management Plan, fallowing is a recommended 'best practice' and is not mandatory.4 Stocking of same-year fish is also not required. In addition, antibiotic resistance monitoring or the cumulative use of antibiotics classified as "highly important" by the WHO is not addressed in the AMA. Despite this, all five MH farm ASC audits cite the AMA for compliance. In addition, recent audits report the AMA has become ineffective and largely inactive.<sup>5</sup> Yet, farms remained certified. Audits representing the cluster of farms in the Huon and D'Entrecasteaux Channel region, where two companies overlap, state no AMA currently exists. Consequently, these farms are now in their fourth year of ASC certification with no formal AMA in place.

SEA LICE N/A MONITORING ON **WILD SALMON** 

SEA LICE LEVELS N/A

MAXIMUM VIRAL Three Australian farms recorded high, unexplained fish mortality but failed to appropriately classify and record DISEASE the percentage of which were due to viral disease. Despite recording a value over the metric limit, the farms remained certified.

ESCAPES In May 2018, the Storm Bay farm in Tasmania experienced an escape event that resulted in around 120,000 escapes.<sup>6</sup> As of 24<sup>th</sup> August 2018, the farm remains certified.

ANTIBIOTIC USE Six audits reported antibiotic use for the grow-out stage, with a total of eight treatments reported. Hatchery antibiotic use was also reported. The total number of antibiotic treatments is likely higher as intermediary farm stages (i.e. smolt sites) are excluded from ASC assessments.

SEA LICE CHEMICAL N/A TREATMENTS (I.E. PTI SCORE)

FISH DEPENDENCY RATIO (FFDRM)

FISHMEAL FORAGE Australian farms perform second best with on average 0.59 FFDRm.

**FISH DEPENDENCY** RATIO (FFDRO)

FISH OIL FORAGE Australian farms ranked the worst at 2.27 FFDRo but are still below the ASC latest requirement of 2.52.

MARINE MAMMAL Four farms reported breaching the marine mammal limit. One company is responsible for the Australian **DEATHS** breaches, where the majority of seal deaths were due to entanglements in farms nets or trapping within the predator false bottom of the farm. These farms remained certified.

#### **Transparency: Farm Public Reporting**

Company websites have easily accessible 'sustainability' dashboards, however data was often aggregated to zoned areas that may host many farms. The Standard requires individual farm reporting, not zonal.

#### ASC AMENDMENTS OF CONCERN

#### **INTERPRETATIONS**

#### Major non-conformance allowed to remain indefinitely open

Farms that are in major non-conformance with the Standard are required to 'close out' the non-conformity before certification is granted or within three months if already certified. Certified farms may extend the closure of a major non-conformity "once for a maximum period of three months" and suspension should occur "if the major non-conformity remains open after six months". In conflict with these CAR requirements, an ASC interpretation allows major non-conformities to remain indefinitely open (with an action plan and assessed progress, but no stipulated deadline).

This interpretation has benefited at least one Australian farm whose smolt provider has occurred repeated exceedance of the phosphorus effluent level and recorded degradation of the downstream environment.<sup>8</sup> Non-compliance was first noted in 2014. A major non-conformity was raised in 2017 and remains open, with an anticipated "final demonstration of conformance" scheduled in 2019. The result is ASC-labelled product can enter the market despite not meeting the Standard's stated 100 per cent compliance requirement.

#### Intermediary stages omitted from compliance

Intermediary stages of the production cycle, such as Tasmania's smolt sites, are never assessed against the ASC Standard. **Up to a year is omitted from compliance with the Standard.** Recently the ASC deemed intermediary stages to be "out of scope". This ASC interpretation amends the CAR's 'unit of certification' definition and contravenes numerous Salmon Standard indicators that rely on data or evidence derived from a full production cycle to demonstrate compliance. Metric counts and data reporting may be false or underreported given that treatments (e.g. antibiotics) and environmental values from the intermediary stage are not included.

#### **VARIANCES**

Five variances have been approved, with four that defer to government regulation instead of the Standard criteria. Reuse of approved variances is common; 27 citations of variances were found in audits. The average Australian audit cites 1 variance (global mean 2.4).

#### **Common and Problematic Variances**

All Tasmanian farms benefited from variances that defer to local governmental regulation. Variances for the benthic and water monitoring indicators have been applied 20 times in Tasmanian audits. Tasmania's regulations do not require farmers to conduct benthic sampling, but rather use visual surveys. Another variance departs from the Standard's requirement to stock single year-class fish and has been applied seven times in audits. Tasmanian salmon farms can host two-year classes within the same farming lease in order to provide a year-round supply for market. In lieu of following the Standard requirements, these farms follow regional biosecurity and mitigation measures.

These variances have been used to certify Tasmanian salmon farms that have subsequently experienced benthic degradation and disease outbreaks (see case study). Consequently, it appears these variances have failed to meet the intent of the Standard requirements – to minimize negative impacts on the benthic environment and prevent the spread/amplification of disease. In addition, variances are often treated as exemptions by auditors as evidence of compliance to the varied criteria (including metrics) are often missing from audit reports. There is evidence to suggest such practice has allowed environmental impacts, such as the benthic impacts from Tasmania's Macquarie Harbour farms, to be missed.

### MACQUARIE HARBOUR CASE STUDY

Approximately one-third of Tasmania's Macquarie Harbour (MH) is located within the boundaries of the Tasmania Wilderness World Heritage Area (TWWHA).<sup>12</sup> It is also home to the Endangered Maugean Skate (Zearaja maugeana).<sup>13</sup> In recent decades, it has also been the home of Tasmania's west coast salmon farm industry. Of late, Tasmania's MH has been the subject of legal action and media attention.

Immediately following the expansion of the industry to 15,490 mT within the harbour in 2013, scientific studies showed declining dissolved oxygen (DO) coinciding with the increased biomass. <sup>14</sup> Leaked industry emails described concerns regarding environmental impacts and biomass caps. <sup>15</sup> Despite this, authorities proposed a further expansion in 2016. <sup>16</sup> However, the maximum biomass cap was revised and lowered after benthic compliance surveys found 19 breaches of the licence conditions. <sup>17</sup> A subsequent compliance survey found further breaches, <sup>18</sup> while an Institute of Marine and Antarctic Studies (IMAS) technical report demonstrated negative impacts on the adjacent World Heritage area. <sup>19</sup>

This prompted the Tasmania Environmental Protection Agency (EPA) to order one non-compliant farm to be destocked.<sup>20</sup> In May 2017, a MH TWWHA Status Report found a decline in abundance and the number of species within the TWWHA.<sup>21</sup> Another IMAS report shows an increase in the prevalence of Beggiatoa (a pollution indicator species).<sup>22</sup> This prompted the EPA director to state that the harbour is "under a level of stress that may not be sustainable in the longer term" alongside announcing a reduction in stocking for the harbour.<sup>23</sup> A further review found an increase in dissolved reactive phosphorous at the TWWHA.<sup>24</sup> The latest IMAS report found very low levels of DO and a decline in benthic faunal abundance within the TWWHA.<sup>25</sup> The industry has also experienced numerous mass scale fish mortality events. Most recently, 1.35 million fish died over a six month period in 2017/2018 due to the outbreak of disease.<sup>26</sup> In May 2018, the EPA announced another reduced biomass limit of 9,500 mT<sup>27</sup> in spite of calls to fallow the harbour.<sup>28</sup>

Despite the negative environmental impacts and fish die off events, a number of MH salmon farms are ASC certified. The first farms (MF 214 and MF 219) received ASC certification in 2014.<sup>29</sup> A variance was approved for the farms to depart from the Salmon Standard's benthic monitoring and water quality indicators.<sup>30</sup> Farms instead follow local regulations that allow benthic impacts to be monitored by visual assessment, rather than sampling and testing relevant parameters. Water is monitored only for nitrogen, not phosphorus.

The farms' initial assessment acknowledged the approval of the variance and stated "Tassal will report on visual surveys now that the variance request is granted". However, the farms' subsequent surveillance reports did not assess these indicators for compliance (although the CAR requires it). For example, the 2016 surveillance audit simply states, "The ASC approved variance is still in place" (2.1.2; 2.1.2) and "As a surveillance audit, the focus of the audit has revolved around open non-conformities, with several other criteria checked at random. These criteria was [sic] not evaluated during the 2016 audit" (2.1.3; 2.2.1). 32

It was during the 2016 surveillance audit that the Franklin lease (MF 266) was added to the certification. A few months later, benthic surveys found Franklin had 14 breaches of compliance and it was ordered to destock. <sup>33</sup> After public outcry, Tassal voluntarily withdrew the ASC eco-label from their Franklin farm. <sup>34</sup> The negative impacts were not addressed until the re-certification of MF 214 and MF 219 where the auditor raised a major non-conformity under Standard indicator 1.1.1 (legal compliance) and 2.1.1 (benthic impacts). After conferring with the EPA, the non-conformities were closed and certification was regranted. <sup>35</sup>

MH farms have also been granted a variance that exempts farms from the Standard indicator 5.4.1 - which requires single year-class fish in order to prevent the amplification and spread of disease. <sup>36</sup> Instead, MH farms can stock two-year classes at the one site. Such stocking practices have been criticized by industry peers and blamed for the recent outbreak of pilchard orthomyxovirus (POMV) in the harbour. <sup>37</sup>



- 1 ASC (2018). Direct communication.
- 2 DPIPWE (2016). Macquarie Harbour Environmental and Fish Health Monitoring Review. Available at: http://dpipwe.tas.gov.au/sea-fishing-aquaculture/marine-farming-aquaculture/macquarie-harbour-environmental-and-fish-health-monitoring-review [Accessed May 2017].
- 3 DPIPWE (2012). Area Management Agreement for salmonid aquaculture in Macquarie Harbour between Huon Aquaculture Group Pty Ltd Petuna Aquaculture Pty Ltd Tassal Operations Pty Ltd. Schedule 4: Data to be collected and retailed under the Macquarie Harbour Area Management Agreement. Version 1.0 December 2012. Available at: http://dpipwe.tas.gov.au/Documents/MHR%20- %20Area%20Management%20Agreement%20Schedule%204%20Data%20Collection.pdf [Accessed May 2018].
- 4 DPIPWE (2012). Area Management Agreement for salmonid aquaculture in Macquarie Harbour betweenHuon Aquaculture Group Pty Ltd Petuna Aquaculture Pty Ltd Tassal Operations Pty Ltd. Schedule 1: Macquarie Harbour Fish Health Management Plan. Version 1.0. December 2012. Available at: http://dpipwe.tas.gov.au/Documents/MHR%20-%20 Area%20Management%20Agreement%20Schedule%20I%20Fish%20Health%20Plan.pdf [Accessed May 2018].
- 5 SCS Global Services (2017). Aquaculture Stewardship Council Salmon Standard Re-Assessment Report. Tassal Operations Pty
  Ltd Western Zone (MF 214 Middle Harbour and MF 219 Gordon). Available at: http://asc.force.com/Certificates/servlet/servlet.
  FileDownload?retURL=%2FCertificates%2Fapex%2FASCCertDetails2%3Fid%3Da0124000008RwkAAAS&file=00P2400000biTRmEAM [Accessed April 2018].
- 6 ABC (2018). Huon Aquaculture confirms 120,000 salmon escaped in May storms, amid calls for more industry 'transparency'. http://www.abc.net.au/news/2018-09-12/huon-aquaculture-salmon-death-revealed-amid-transparency-calls/10230846 [Accessed September 2018].
- ASC (2018). Q&A6\_CAR\_v.2.0\_17.10.1.2.d.iii http://variance-requests.asc-aqua.org/questions/qa6\_car\_v-2\_17-10-1-2-d-iii/ Accessed [June 2018].
- 8 SCS Global Services (2017). Aquaculture Stewardship Council Salmon Standard. 2017 Surveillance Assessment Report. Petuna Seafoods MF178 Longreach. Available at: http://asc.force.com/Certificates/servlet/servlet.FileDownload?retURL=%2FCertificates%2Fapex%2FASCCertDetails2%3Fid%3Da012400000R7N56AAF&file=00P1o00000t95TREAY [Accessed June 2018].
- 9 ASC (2018). Q&A11\_Smolts, temporarily held in saltwater, scope of the requirements of the ASC Salmon Standard. http://variance-requests.asc-aqua.org/questions/are-smolts-that-are-temporarily-held-in-saltwater-pens-but-are-not-yet-in-final-stage-grow-out-sites-within-scope-of-the-requirements-of-the-asc-salmon-standard-v1-0-1-1-if-so-which-principl/ [Accessed April 2018].
- 10 ASC (2018). VR 22: Benthic biodiversity and water quality. http://variance-requests.asc-aqua.org/questions/vr-22/ [Accessed April 2018].
- 11 ASC (2018). VR 116: Salmon in single year class. http://variance-requests.asc-aqua.org/questions/vr-116-salmon-in-single-year-class/ [Accessed April 2018].
- 12 DPIPWE (2015) Macquarie Harbour Status Report. Available at: http://dpipwe.tas.gov.au/Documents/Report%20on%20the%20Status%20of%20Macquarie%20Harbour.pdf [Accessed April 2018].
- 13 IUCN (2018). Zearaja maugeana. http://www.iucnredlist.org/details/64442/0 [Accessed May 2018].
- 14 Knight, B, Forrest, B & Johnston, C (2015). Macquarie Harbour Environmental and Fish Health Monitoring Review. Report no. 2729. Cawthron Institute. Available at: http://dpipwe.tas.gov.au/Documents/Report%20Cawthron%20Review.pdf [Accessed April 2018].
- 15 ABC (2015). Leaked email shows salmon producers concerned over health of Tasmanian waterways they rely on. http://www.abc.net.au/news/2015-10-24/environmental-concerns-about-aguaculture-expansion-in-tasmania/6874462 [Accessed April 2018].
- 16 EDO Tasmania (2018). Salmon Farming in Macquarie Harbour: timeline of key events. Available at: http://www.edotas.org.au/wp-content/uploads/2018/04/Mac-Harbour-timeline-update-April-2018.pdf [Accessed May 2018].
- 17 EPA (2016). EPA Compliance Summary, Macquarie Harbour, September 2016. Available at: http://epa.tas.gov.au/Documents/MH%20lease%20boundary%20compliance%20 summary%20September%202016.pdf [Accessed April 2018].
- 18 EPA (2017). EPA Compliance Summary, Macquarie Harbour, January 2017. Available at: http://epa.tas.gov.au/Documents/MH%20Lease%20Boundary%20Compliance%20Summary%20January%202017.pdf [Accessed April 2018].
- 19 Ross, J & MacLeod, C (2017). Environmental Research in Macquarie Harbour. Interim Synopsis of Benthic and Water Column Conditions. IMAS. January 2017. Available at: http://epa.tas.gov.au/Documents/IMAS%20Technical%20Report%20on%20Macquarie%20Harbour%20Condition.pdf [Accessed April 2018].
- 20 EPA (2017). EPA directs de-stocking of Macquarie Harbour salmon lease. http://epa.tas.gov.au/Pages/News.aspx?newsstory=3677 [Accessed April 2018].
- 21 EPA (2017). Macquarie Harbour Tasmanian Wilderness World Heritage Area Environmental Status Report, May 2017. Available at: http://epa.tas.gov.au/Documents/Macquarie%20Harbour%20TWWHA%20Environmental%20Status%20Report,%20EPA,%20May%202017.pdf [Accessed April 2018].
- 22 Ross, J & Macleod, C (2017). Environmental Research in Macquarie Harbour. FRDC 2016/2017: Understanding oxygen dynamics and the importance for benthic recovery in Macquarie Harbour. IMAS. Available at: http://www.imas.utas.edu.au/\_\_data/assets/pdf\_file/0006/975894/IMAS-Progress-Report-on-Macquarie-Harbour-FRDC-2016-067.pdf [Accessed April 2018].
- 23 EPA (2017). EPA Director to reduce fish biomass for Macquarie Harbour http://epa.tas.gov.au/Pages/News.aspx?newsstory=3705 [Accessed April 2018].
- 24 EPA (2017). Macquarie Harbour 2013-2016 Nutrient Review. Internal Draft V 5/5/2017. Ma 2017. Available at: http://epa.tas.gov.au/Documents/Macquarie%20Harbour%20 2013-2016%20Nutrient%20Review%20May%202017%20(Internal%20Praft).pdf [Accessed April 2018].
- 25 Ross, J & Macleod, C (2018). Environmental Research in Macquarie Harbour. FRDC 2016/067: Understanding oxygen dynamics and the importance for benthic recovery in Macquarie Harbour. Progress Report. IMAS. February 2018. Available at: http://www.imas.utas.edu.au/\_\_data/assets/pdf\_file/0011/1086563/IMAS-Progress-Report-on-Macquarie-Harbour- -February-2018.pdf [Accessed April 2018].

- 26 ABC (2018). Macquarie Harbour salmon: 1.35 million fish deaths prompt call to 'empty' waterway of farms. http://www.abc.net.au/news/2018-05-29/salmon-deaths-in-macquarie-harbour-top-one-million-epa-says/9810720 [Accessed May 2018].
- 27 EPA (2018). Biomass limit for salmonids in Macquarie Harbour set for 2018 to 2020. http://epa.tas.gov.au/epa/news/biomass-limit-for-salmonids-in-macquarie-harbour-set-for-2018-to-2020 [Accessed May 2018].
- 28 ABC (2018). Macquarie Harbour salmon: 1.35 million fish deaths prompt call to 'empty' waterway of farms. http://www.abc.net.au/news/2018-05-29/salmon-deaths-in-macquarie-harbour-top-one-million-epa-says/9810720 [Accessed May 2018].
- 29 SCS Global Service (2014). Aquaculture Stewardship Council Salmon Standard Full Assessment Report. Tassal

  Operations Pty Ltd: Macquarie Harbour MF 214 and MF 219. Available at: http://asc.force.com/Certificates/servlet/servlet.

  FileDownload?retURL=%2FCertificates%2Fapex%2FASCCertDetails2%3Fid%3Da0124000008RwkAAAS&file=00P24000005RQgXEAW [Accessed April 2018].
- 30 ASC (2018). VR 22: Benthic biodiversity and water quality. http://variance-requests.asc-aqua.org/questions/vr-22/ [Accessed April 2018].
- 31 SCS Global Service (2014). Aquaculture Stewardship Council Salmon Standard Full Assessment Report. Tassal

  Operations Pty Ltd: Macquarie Harbour MF 214 and MF 219. Available at: http://asc.force.com/Certificates/servlet/servlet.

  FileDownload?retURL=%2FCertificates%2Fapex%2FASCCertDetails2%3Fid%3Da0124000008RwkAAAS&file=00P24000005RQgXEAW [Accessed April 2018].
- 32 SCS Global Services (2016). Aquaculture Stewardship Council Salmon Standard. Second Surveillance Assessment Report. Tassal Operations
  Pty Ltd Western Zone MF 214 Middle Harbour, MF 219 Gordon and MF 266 Franklin. Available at: http://asc.force.com/Certificates/servlet/servlet.
  FileDownload?retURL=%2FCertificates%2Fapex%2FASCCertDetails2%3Fid%3Da0124000008RwkAAAS&file=00P2400000JHR1JEAX [Accessed April 2018].
- 33 EPA (2017). EPA directs de-stocking of Macquarie Harbour salmon lease. http://epa.tas.gov.au/Pages/News.aspx?newsstory=3677 [Accessed April 2018].
- 34 Tassal (2017). Macquarie Harbour ASC Re-certification Audit. Available at: http://tassalgroup.com.au/macquarie-harbour-asc-re-certification-audit/ [Accessed April 2018].
- 35 SCS Global (2017). Aquaculture Stewardship Council Salmon Standard Re-Assessment Report. Tassal Operations Pty Ltd Western Zone (MF 214 Middle Harbour and MF 219 Grodon). Available at: http://asc.force.com/Certificates/servlet/servlet. FileDownload?retURL=%2FCertificates%2Fapex%2FASCCertDetails2%3Fid%3Da0124000008RwkAAAS&file=00P2400000biTRmEAM [Accessed April 2018].
- 36 ASC (2018). VR 116: Salmon in single year class. http://variance-requests.asc-aqua.org/questions/vr-116-salmon-in-single-year-class/ [Accessed April 2018].
- 37 ABC (2018). Macquarie Harbour salmon: 1.35 million fish deaths prompt call to 'empty' waterway of farms. http://www.abc.net.au/news/2018-05-29/salmon-deaths-in-macquarie-harbour-top-one-million-epa-says/9810720 [Accessed May 2018].



This regional report is supported by technical and summary reports.

For the complete analysis and ASC's response, refer to the technical report.

Visit: www.seachoice.org/asc-global-review

info@seachoice.org SeaChoice.org





