

# Report for Tassal Operations Pty Ltd: Tasman Region, MF 190 Creeses Mistake

*First Surveillance Audit  
Aquaculture Stewardship Council (ASC)  
Salmon Standard V1.0*

**Tassal Operations Pty Ltd  
Level 9, 1 Franklin Wharf, Hobart 7000 Australia**

USING: ASC Salmon Standard V1.0 June 2012

AUDITORS: Dr. Christine Crawford, Joseph  
Kochanski and Dr. Sabine Daume (remote)

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*Prepared by:*

SCS Global Services (SCS),  
ASI-Accredited Conformity Assessment Body (#ASC-ACC-005)  
Sustainable Seafood Program  
NATURAL RESOURCE DIVISION

Email: [sdaume@scsglobalservices.com](mailto:sdaume@scsglobalservices.com)

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2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA  
+1.510.452.8000 main | +1.510.452.8001 fax  
[www.SCSglobalServices.com](http://www.SCSglobalServices.com)

## Table of Contents

1	Summary .....	6
2	Background of Farm and updates to Farming operations .....	6
3	Scope.....	8
4	Audit Plan.....	9
4.1	Previous Audits .....	9
4.2	Names of the Auditors .....	9
4.3	Audit Plan as Implemented.....	10
4.4	Staff Interviews .....	11
5	Findings .....	11
6	Results and Conclusions.....	22
7	References .....	23
	Appendix 1: Confidential annex.....	<b>Error! Bookmark not defined.</b>

## Acronyms

ABM	Area Based Management
ABN	Australian Business Number
ACN	Australian Company Number
ADAS	Australian Diver Accreditation Scheme
ADD	Acoustic Deterrent Device
AHD	Acoustic Harassment Device
AGD	Amoebic Gill Disease
AMA	Area Management Agreement
AMAMG	Area Management Agreement Management Group
AMBI	AZTI Marine Biotic Index
ANZECC	Australian and New Zealand Environment and Conservation Council
APC	Australian Packaging Covenant
APVMA	Australian Pesticides and Veterinary Medicines Authority
ARV	Aquareovirus
ASC	Aquaculture Stewardship Council
ASI	Accreditation Services International
ASX	Australian Securities Exchange
ATO	Australian Taxation Office
AWU	Australian Workers' Union
AZE	Allowable Zone of Effect
BAP	Best Aquaculture Practices
BEMP	Broadscale Environmental Monitoring Program
BET	Bigeye Tuna
BOD	biochemical oxygen demand
BQI	Benthic Quality Index
CAB	Conformity Assessment Body
CoC	Chain of Custody
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DHA	Docosahexaenoic Acid
DNA	Deoxyribonucleic Acids
DO	Dissolved Oxygen
DOM	Dive Operations Manual
DPEMP	Development Proposal and Environmental Management Plan
DPIPWE	Department of Primary Industry, Parks, Water and Environment
eFCR	Economic Feed Conversion Ratio
EHN	Epizootic haematopoietic necrosis
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EMPCA	Environmental Management and Pollution Control Act 1994
EPA	Environmental Protection Authority
EPN	Environment Protection Notice
EPO	Eastern Pacific Ocean
ERM	Enteric Redmouth Disease
EUL	Estimated Unexplained Loss
FCR	Feed Conversion Rates
FFDRo	Fish Oil Forage Fish Dependency Ratio
FFDRm	Fishmeal Forage Fish Dependency Ratio
FHMP	Fish Health Management Plan
FHU	Fish Health Unit

FIP	Fisheries Improvement Project
FM	Fish Meal
FO	Fish Oil
FRDC	Fisheries Research & Development Corporation
FY	Financial Year
GHG	Green House Gas
GJ	Gigajoule
GMO	Genetically Modified Organism
GWP	Global Warming Potential
HAC	Huon Aquaculture Company
HAG	Huon Aquaculture Group
HO	Head Office
HOG	Head On Gutted
HoS	Head of Sustainability
HPLC	High-performance liquid chromatography
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
IFFO RS	The International Fishmeal and Fish Oil Organisation - Responsible Supply
IFS	Inland Fisheries Service
IHN	Infectious haematopoietic necrosis
BKN	Bacterial kidney disease
IMAS	Institute of Marine & Antarctic Studies, University of Tasmania
IMS	Integrated Management System
IPN	Infectious pancreatic necrosis
ISA	Infectious salmon anaemia
ISEAL	International Social and Environmental Accreditation and Labeling Alliance
ISO	International Organization for Standardization
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unregulated, and Unreported
JSA	Job Safety Analysis
kWh	Kilowatt Hour
LCA	Life Cycle Analysis/Assessment
LOI	Loss on Ignition
LPG	Liquid Petroleum Gas
MDS	multidimensional scaling
MF	Marine Farm
MFDPlan	Marine Farm Development Plan
MOPs	Marine Operations
MSC	Marine Stewardship Council
MSDS	Material Safety Data Sheets
MT	Metric Ton
mWh	Megawatt Hour
NC	Non-conformity
NES	National Employment Standards
NGER	National Greenhouse and Energy Reporting
NRM	Natural Resource Management
NWB	North West Bay
OH&S	Occupational Health and Safety
OIE	World Organization for Animal Health
OTC	Oxytetracycline
PD	Pancreas Disease
PPE	Personal Protective Equipment

pSIA	participatory Social Impact Assessment
QA	Quality Assurance
RCD	Residue Current Device
RLO	Rickettsia
RM	Regional Manager
ROV	Remotely Operated Vehicle
RTRS	Roundtable for Responsible Soy
SAD	Salmon Aquaculture Dialogue
SAI	Social Accountability International
SARDI	South Australian Research and Development Institute
SCAT	Southern Coastcare Association of Tasmania
SHWG	Salmonid Health Working Group
SOMV	Salmon Orthomyxovirus
SOP	Standard Operating Procedure
SPC	Soy Protein Concentrate
SPP	Special Plumbing Permit
SRAC	Sustainability Report Advisory Committee
SROI	Social Return on Investment
TAFI	Tasmanian Aquaculture and Fisheries Institute
TARFISH	Tasmanian Association for Recreational Fishing
TASI	Tasmanian Aboriginal Site Index
TCT	Tasmanian Conservation Trust
TFDA	Tasmania Fisheries Development Authority
TIMS	Tassal's integrated Management System
TPDNO	Total Permitted Dissolved Nitrogen Output
TRCI	Tasmanian River Condition Index
TSGA	Tasmanian Salmonid Growers Association
TSIC	Tasmanian Seafood Industry Council
USA	United States of America
VDA	Van Diemen Aqua
WDP	Waste Disposal Plan
WHS	Work Health and Safety
WHO	World Health Organization
WIP	Wildlife Interaction Plan
WPA	Workplace Partnerships Agreement

## 1 Summary

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The Tassal Operations Pty Ltd (Tassal) salmon culturing site within the scope of this surveillance audit in the Tasman Region, marine farm (MF) 190 Creeses Mistake, continues to show good overall compliance with the main areas of the Aquaculture Stewardship Council (ASC) Salmon Standard. The audit team evaluated the operations against the ASC Salmon Standard v1-0 (June 2012).

Overall progress against the eleven (11) non-conformities (NCs) identified during the full assessment of the Tasman Region, MF190 Creeses Mistake site and progress against the action plan were assessed during this surveillance audit.

During the full assessment, the following NCs were identified: one NC in Principle 1 (Comply with all applicable national laws and local regulations) related to health and safety regulations and four in Principle 2 (Conserve natural habitat, local biodiversity and ecosystem function), one related to the frequency of nitrogen and phosphorus levels on measurements at the farm, one about feed testing, one about access to information by the public, one about marine mammal mortality. There was one NC in Principle 4 (Use resources in an environmentally efficient and responsible manner) related to the feed ingredients used at the farming sites. There were two NCs in Principle 5 (Manage disease and parasites in an environmentally responsible manner). The first one related to the frequency of farm site visits by the company vet, the other one to the estimated percentage of unexplained mortality to overall mortality at the farm site. Two NCs were identified in Principle 7 (Be a good neighbor and conscientious citizen), the first one related to informing the community regarding antibiotics treatments and potential health risks is associated with two compliance criteria, the second one was about consultations with aboriginal groups. One NC was identified in Section 8 (Requirements for suppliers of smolt). The NC was about dissolved oxygen (DO) measurements in effluent of the semi-open hatchery system at Russell Falls.

The review of corrective actions at the 2015 surveillance audit resulted in the closure of 11 of 11 NCs from 2014. Two (2) new Minor NC were identified at this surveillance audit: 1) in Principle 5 (Manage Disease and Parasites in an Environmentally Responsible Manner) due to an unexplained mortality rate that exceeded the maximum limit and 2) in Principle 7 (Be a Good Neighbor and Conscientious Citizen) due to the bi-annual meeting requirement and related records.

## 2 Background of Farm and updates to Farming operations

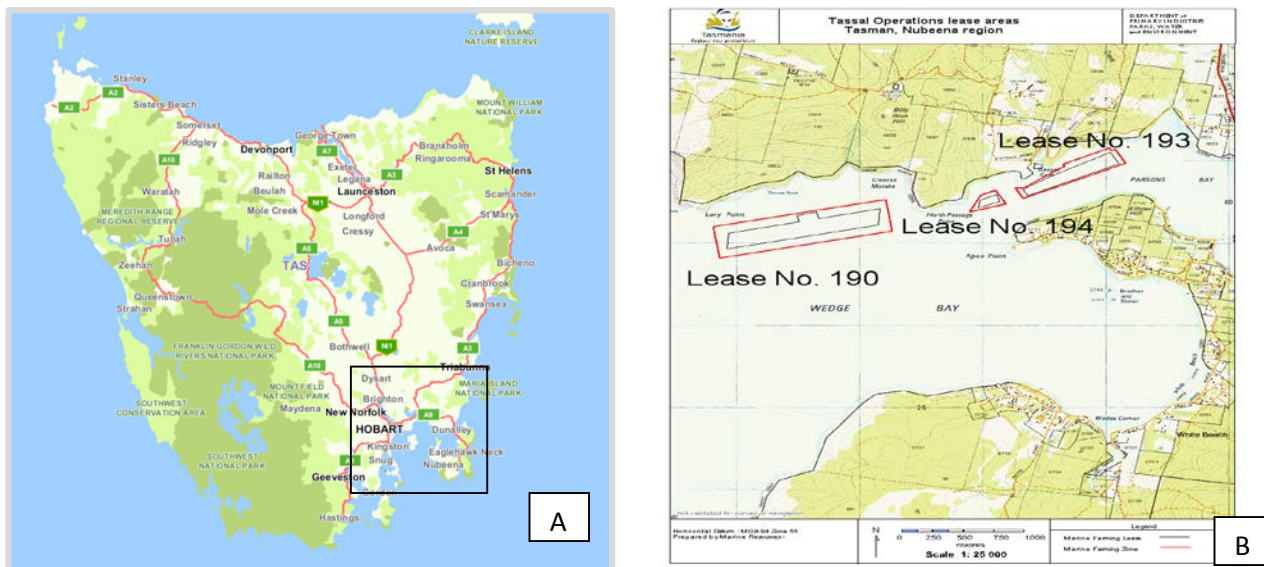
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Tassal is the largest salmon aquaculture company in Australia, employing over 950 people. A vertically integrated company, Tassal operates two salmon hatcheries, three processing facilities, two retail outlets and marine farms in six regions throughout the state. Tassal is producing salmon predominately for the Australian market, and has a retail presence in over 2,000 outlets around Australia. Tassal Group Pty Ltd is an ASX 200 public company listed on the Australian Securities Exchange. Including Tasman, it has six regional farming sites.

The Tassal site assessed during this surveillance audit, MF 190 Creeses Mistake, is located within Zone 14A of the Tasman Peninsula and Norfolk Bay Marine Farming Plan area, in Wedge Bay (Figure 1). Boundaries of this zone are defined in the Tasman Peninsula and Norfolk Bay Marine Farming Development Plan (MFDP). The size of the zone is approximately 143.1 hectares with a Maximum Leasable Area (MLA) of 48.5 hectares. Tassal is permitted to farm finfish in this zone as per

provisions of the marine farming license. The Creeses Mistake lease has been operating for 17 years and currently holds 30 available pen bay positions.

Tassal farms Atlantic salmon (*Salmo salar*) in open net cage farming systems. At the site, polar circle pens, 120m in circumference, are used with densities of 15 kg/m<sup>3</sup> maximum following internal Tassal policies. The following time is based on feed input from the preceding 12 months and benthic survey (see below environmental monitoring for more details).



**Figure 1. Map A: Tasmania, Australia, area that contains the sites (MF 190) is off the Tasman Peninsula indicated by black box. Map B: Close-up location of the lease sites (MF 190). Other sites are not included in unit of certification and not used for grow-out.**

## Environmental Monitoring

Environmental monitoring requirements for each farm by the Tasmanian Government are specified in the marine farming license which is renewed annually.

Tassal has voluntarily commenced water quality monitoring program in the Tasman and Norfolk Bay MFD region adjacent to their farming operations at Nubeena and Port Arthur to complement their existing compliance monitoring activities, and to ensure that their operations are not impacting on marine ecosystems at the broadscale level. This program involves monitoring for dissolved nutrients and microalgal biological information at both near-farm and control locations. It also serves as an important dataset for broad-scale monitoring of the environment, analogous to the BEMP program in the D'Entrecasteaux Channel and Huon Estuary. The dataset also provides the potential for examining differences in water quality between farming regions, which in turn may lead to opportunities for improved management of farming operations in the southeast region.

On and near the farm: All salmon farms in Tasmania must conduct an annual video survey of the seabed in and near their lease to assess that the farm is not having an unacceptable impact on the local benthic environment. Details of the filming procedure for the video monitoring are specified in

Schedule 3 of Marine Farming License conditions. Spot dives, generally six in total, are conducted at compliance sites as specified by DPIPW; these sites are mostly at 35 m from the boundary of the lease area and in the down current direction. Six video surveys are also conducted inside the lease area which must include sites that have been subjected to the heaviest stocking pressure (highest feed input prior to fallowing or in previous 12 months) and are filmed from the edge to the centre of the cage. The license specifies significant visual impacts which must not occur within the lease area – excessive feed, bacterial mats or spontaneous gas bubbling from the sediment; and beyond the boundary of the lease area – presence of feed pellets, bacterial mats, gas bubbling, or numerous opportunistic polychaetes on the sediment surface. If a significant visual impact is detected, then additional environmental monitoring is likely to be triggered.

Broadscale Environmental Monitoring Program (BEMP): All license holders in the D’Entrecasteaux Channel and Huon River and Port Esperance MFDP areas must participate in the BEMP, which is investigating the cumulative impact of all salmon farms in the waterway. Fifteen sites spread throughout the region are monitored for water and sediment quality. Sediments are sampled every March (autumn) for redox, sulphide, organic content (LOI) particle size, benthic infauna and stable isotopes, although infauna and stable isotope samples were only fully analysed in the first year, and placed in storage for subsequent years. Full analysis is recommended every 4-5 years unless results indicate more frequent analysis is required. Water column parameters - ammonia, nitrate, nitrite, phosphate, silicate, Total Nitrogen, Total Phosphorous, Dissolved Oxygen, temperature, salinity, and phytoplankton biomass and community composition (chlorophyll *a*, HPLC pigments and cell counts) are sampled 15 times per year; monthly from May-Jan and fortnightly from Feb-April. Schedule 3BEMP of the license provides a detailed description of sampling procedures, processing, analysis and reporting for each environmental variable.

Although not part of regulatory license conditions, Tassal has commenced monthly monitoring of water quality in the Tasman region, similar to the BEMP water quality monitoring, with four sites at Nubeena and four sites at Port Arthur.

Since the 2014 full assessment of the Tasman Region site against the ASC Salmon standard, where 11 non-conformities were identified, Tassal has implemented several new procedures to address these findings. These include:

- Testing feed on a quarterly basis;
- Updating lethal incidents monthly on the ASC dashboard;
- Writing a community newsletter;
- Dissolved Oxygen is measured monthly at the hatcheries;
- Equipment test and tag is occurring every six months;
- Monthly monitoring of water quality at eight sites in the Tasman marine farming region; and
- Quarterly site visits by the fish health team.

### 3 Scope

<b>Reference Standard &amp; Guidance</b>	ASC Salmon Standard V1.0 June 2010 Audit Manual, ASC Salmon Standard V1.0
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<b>Scheme Documents</b>	ASC Certification and Accreditation Requirements V1.0
<b>Species Produced</b>	(Atlantic salmon - <i>Salmo salar</i> )
<b>Audit Scope</b>	Marine farm-level production at MF 190 Creeses Mistake, single site assessment
<b>Receiving Water Body</b>	Wedge Bay and Parsons Bay, into Storm Bay, Tasmania, Australia

## 4 Audit Plan

### 4.1 Previous Audits

Tassal received ASC certification for the Tasman Region farm site on September 18, 2014.

All aspects of the assessment process were carried out under the auspices of SCS Global Services (SCS), an Accreditation Services International (ASI) accredited conformity assessment body (CAB), and in direct accordance with ASC requirements.

### 4.2 Names of the Auditors

The following auditors comprised the assessment team: Dr. Christine Crawford, Joseph Kochanski and Dr. Sabine Daume.

#### **Dr. Christine Crawford**, Technical Expert

Dr. Christine Crawford has over thirty years' experience in shellfish and finfish aquaculture, including hatchery and intertidal shellfish production, and effects of aquaculture on the environment, both in Australia and overseas. She is currently a Senior Research Fellow at the Institute for Marine and Antarctic Studies, University of Tasmania. Dr. Crawford has also lead research projects investigating the ecology and health and monitoring of estuaries, including environmental flows and links between changing climatic conditions and estuarine water quality. Christine has worked for the Tasmanian government for many years. In recent years she has conducted ecological sustainability assessments for aquaculture operations in Australia and overseas for WWF.

Dr. Crawford has published widely in the international peer-reviewed literature, including 38 papers, 6 book chapters, book co-editor and over a hundred reports to industry and government. Her work has also involved a diverse range of stakeholders, often in remote locations.

#### **Joseph Kochanski**, SCS Global Services – Social Auditor

Joseph Kochanski is an Associate at SCS Global Services, specializing in social and Chain of Custody auditing. He is a Fair Trade USA trained auditor, with a focus on audit projects in Australasia. Joseph has led a wide variety of audits since completing his ISO 9001:2008 Lead Auditor course in 2010 which have ranged from MSC to FSC Chain of Custody projects. Joseph graduated from the University of Wisconsin-Madison in 2007 with a degree in Environmental Sociology. He now helps administer the Sustainable Seafood program for SCS Australia branch office.

#### **Dr. Sabine Daume**, SCS Global Services – Regional Director, MSC and ASC Lead Auditor

Dr. Daume is responsible for leading SCS's Sustainable Seafood Certification program in Australia which includes aquaculture and fishery certification under the auspices of both the Aquaculture Stewardship Council (ASC) and the Marine Stewardship Council (MSC). She has been part of the global steering committee for the Abalone Dialogue to develop the Abalone standard for ASC and sits on the Technical Advisory Group for the Aquaculture Stewardship Council. Prior to joining SCS Dr. Daume worked as a Senior Research Scientist at the Research Division of the Department of Fisheries in Western Australia and at Deakin University in Victoria, Australia.

Past research conducted by Dr. Daume has focused on invertebrate aquaculture and fisheries. She has led several nationally FRDC funded, multi-year research grants on abalone broodstock conditioning and improvements to hatchery and nursery production as well as fisheries enhancement. Dr. Daume is a certified lead auditor under the ISO 9001:2008 and SAI's training for SA 8000 (social accountability) and trained to conduct ASC audits against the salmon and abalone standards. She has led numerous pre- and full- MSC assessments of various size and scale, including many fisheries in Australia. She also has experience working with diverse stakeholder groups, often in remote marine environments. Sabine has published in the peer-reviewed scientific literature (e.g. *Aquaculture Research*, *Journal of Shellfish Research*) as well as produced research reports and produced interactive training materials for the industry and led industry workshops.

### 4.3 Audit Plan as Implemented

The general steps followed were:

#### Onsite Audit and Meetings with the company staff (August 24<sup>th</sup>-25<sup>th</sup>, 2015)

SCS planned for and conducted meetings at Tassal's central office in Hobart, Tasmania, Australia. Day 1 involved introductions, document review, discussion with HQ staff, and review of open non-conformities. Day 2 was spent at the Creeses Mistake operations facility and farm site. Staff interviews took place here, further document and records review, followed by a closing meeting.

#### Gathering of evidence (August 2015)

The client submitted evidence for the audit team's review via a shared Dropbox folder. This included documents, reports, internal protocols and procedures, all of which were received prior to the commencement of the site audit.

#### Drafting the report (September 2015)

The assessment team drafted the report in accordance with ASC required process and layout.

#### Review of the report (September- October 2015)

The complete draft report was submitted to the client for review. The draft report included a list of closed non-conformities along with new findings from the

surveillance audit. The client was requested to include a root cause analyses as well as action plan to close out any new minor non-conformities.

Release of Report (December 2015)

SCS released the surveillance report for posting on the ASC website.

#### 4.4 Staff Interviews

The Table below summarizes the staff interviews that were conducted at Tassal head office (HO) and at the land based office for the Tasman region first surveillance audit.

**Table 1. Summary of Worker and Management Interviews**

Table 1: Summary of Worker and Management Interviews
Environmental Certification Officer
Community Engagement Officer
Head of Sustainability and Fish Health
Senior Manager of Fish Health
Senior Manager of Farming
Aquaculture Consultant
Regional Manager
Systems Team Leader
Farm Worker 1
Farm Worker 2

## 5 Findings

This first surveillance audit concentrated on the non-conformities identified during the full assessment for Tasman Region, MF 190 Creeses Mistake against ASC Salmon Standard V1.0 and these are reported below. Compliance with other criteria for ASC certification were also considered during the surveillance audit.

Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
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1.1.1.a	2014	Minor NC	The land base in Tasman equipment was not always operated in line with legislative requirements for WHS and environmental protection (e.g. testing of electric drill had just expired test & tags (Feb'14)	Operator error: Not following documented process.	Test and tag scheduled immediately. Before the first surveillance audit in 2015, Tassal will ensure operations are in line with legislative requirements for WHS and environmental protection	Corrective actions to be assessed at the first surveillance audit
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**Progress against action plan:**

Random checking of electrical equipment around the land base at Tasman showed that they were within the required test and tag schedule. The land base at Tasman was therefore considered to operate in line with legislative requirements for WHS and environmental protection.

Supporting Documentation Submitted:

- Tasman Region July 2015 Monthly Site Inspection - includes Test & Tag
- Tasman Region June 2015 WHS Compliance Scorecard - includes Test & Tag

**Status of NC: CLOSED**

Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
2.2.4	2014	Minor NC	The Benthic monitoring Program (BEMP) does not apply for the Tasman site and monthly measurements of nitrogen and phosphorus levels on farm only commenced in February, 2014.	The BEMP builds on the management and compliance controls that regulate marine farming practices at the fine spatial scale by monitoring water quality and sediment chemistry and biology to determine whether the environmental impacts to marine ecosystems from marine farming occur at the broadscale level.  The BEMP is a Marine Farm licence condition for all salmonid	Tassal will continue to monitor as per stated sampling program.	Corrective actions to be assessed at the first surveillance audit

				<p>farmers operating in the D’Entrecasteaux Channel and Huon Estuary. It does not apply to the Tasman Peninsula and Norfolk Bay MFDP area.</p> <p>Tassal has voluntarily commenced water quality monitoring program in the Tasman and Norfolk Bay MFDP region adjacent to their farming operations at Nubeena and Port Arthur to complement their existing compliance monitoring activities, and to ensure that their operations are not impacting on marine ecosystems at the broadscale level. This program involves monitoring for dissolved nutrients and microalgal biological information at both near-farm and control locations. It also serves as an important dataset for broad-scale monitoring of the environment, analogous to the BEMP program in the D’Entrecasteaux Channel and Huon Estuary. The dataset also provides the potential for examining differences in water</p>		
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				quality between farming regions, which in turn may lead to opportunities for improved management of farming operations in the southeast region.		
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**Progress against action plan:**

Environmental data were provided by Aquenal Pty Ltd, an environmental consulting company that conducts monitoring for the salmon industry. They provided a copy of the Tasman Peninsula Water Quality Sampling Summary Report: Nubeena Farming Region (2014-2015). This contains monthly water quality data (DO, temperature, salinity, pH, ammonium, nitrate, TN, phosphate, TP, silicon, chlorophyll a, phytoplankton cell counts and abundance/diversity) from February 2014 to May 2015 for four sites in the Creeses Mistake, Tasman farming region. This sampling program follows the format of the Broadscale Environmental Monitoring Program conducted by Tassal at its other farms and includes recommended water quality trigger values for the region. Tassal were granted a variance to 2.2.4 based on this regional monitoring program.

Supporting Documentation Submitted:

Tasman Peninsula Water Quality Sampling Summary Report: Tasman Farming Region (2014-2015) prepared by Aquenal and Marine Solutions was reviewed. This contains monthly data from February 2014 to May 2015.

**Status of NC: CLOSED**

Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
2.3.1.a, c	2014	Minor NC	Currently, the feed used at the sites is not tested quarterly.	Feed has been tested annually by feed supplier as per contractual agreement. At the time of the audit Tassal was had implemented internal quarterly testing procedures, but historical evidence was not yet available.	Equipment has been purchased and procedure implemented. Training scheduled for August 2014. Testing will be conducted quarterly going forward	Corrective actions to be assessed at the first surveillance audit

**Progress against action plan:**

Feed is now tested quarterly according to a Tassal-wide standard method. The Procedure for testing feed, MO-374, and the quarterly measurements of % fines in feeds for the previous 12 months were reviewed.

Supporting Documentation Submitted:

- Tasman Region percent fines test results
- Feed Team Leader meeting notes (including evidence of percent fines test demonstration by Skretting)
- Records of equipment purchased to support testing - scales, sieve lids and pans
- MO-374 Quarterly Calculation of Percentage Fines in Feed

**Status of NC: CLOSED**

Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
2.5.5.b	2014	Minor NC	Currently, information about lethal incidents is not made publically available within 30 days.	Historically, Tassal has reported lethal incidents annually in their Sustainability Report. As per ASC requirements, Tassal has made a commitment to report any lethal incidents on their website ( <a href="http://www.tassal.com.au">www.tassal.com.au</a> ) within 30 days.	A new website will include a tab for all ASC reporting requirements. Any lethal incidents will be reported there within 30 days. New website was launched June 2014.	Corrective actions to be assessed at the first surveillance audit

**Progress against action plan:**

Lethal incidents are now updated monthly on the Tassal website on the ASC Dashboard.

Supporting Documentation Submitted:

- ASC Dashboard updated monthly - please refer ASC Dashboard on Tassal website (most recent updates for July 2015)

**Status of NC: CLOSED**

Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
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2.5.6.c	2014	Minor NC	At the Tasman farm site, the marine mammal mortality is greater than 2 over prior 2 years	Wildlife interactions inevitably occur at salmon farms, as farmed salmon is a tempting protein rich source	<p>Tassal is committed to reducing interactions with wildlife at our marine farms, especially interactions that result in mortalities.</p> <p>Tassal has two full-time wildlife management officers and team of casual staff responsible for managing interactions between wildlife and our salmon.</p> <p>The most effective way to reduce interactions with wildlife is to prevent them from entering our sea pens. We utilise a number of passive strategies including:</p> <ul style="list-style-type: none"> <li>•Highly tensioned nets that help to prevent seals chewing through the nets</li> <li>•Seal proof bird netting, which acts as an exclusion measure for birds and is strong enough to prevent seals from jumping into the pens.</li> </ul> <p>We continue our work with researchers and international experts to find better ways of preventing interactions with seals and we are currently rolling out the very latest</p>	Corrective actions to be assessed at the first surveillance audit
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					in net design across our farms through the use of Kikko nets. By the end of June 2014, we will have over 100 kikko nets in the water.	
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**Progress against action plan:**

Tasman two-year running total for mammal mortality is now less than 2. The last seal mortality was in October 2013.

Supporting Documentation Submitted:

- Tasman Region wildlife - two year running total by lease

**Status of NC: CLOSED**

Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
4.3.2.b	2014	Minor NC	Not all ingredients of the feeds used at the Tasman site achieve individual fish source scores >6.	Feed ingredients purchased prior to ASC commitment	Working with Skretting (Feed company) to achieve full compliance to the criteria	Corrective actions to be assessed at the first surveillance audit

**Progress against action plan:**

Skretting, which supplies all feed to Tassal has recently been assessed as meeting the requirements of ASC salmon standard Principle 4 for feed. A copy of their certificate from SGS for 2015-16 was provided. Invoices from Skretting to Tassal for ASC certified feeds with dates of invoicing and delivery were observed.

Supporting Documentation Submitted:

- Q2, Q3, Q4 2014 Skretting ASC Feed Certificates
- Q1, Q2 2015 Skretting ASC Feed Certificates

**Status of NC: CLOSED**

Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
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5.1.2.a	2014	Minor NC	During the last 2 years, visits by the company vet were not conducted quarterly.	Historically, the Fish Health team (including company vet) have visited Tassal regions as required with no specific schedule in place. This process has been implemented; however, there is no historical evidence to support this. At the time of the audit Tassal had implemented quarterly vet visits at this region, but historical evidence was not yet available.	Before the first surveillance audit in 2015, the fish health team will visit site quarterly, as per site visit planner.	Corrective actions to be assessed at the first surveillance audit
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**Progress against action plan:**

Tassal has full-time trained technical health reps at each site. Reports from the Fish Health Field Officer site visits to Tasman every one-two months were reviewed. The Senior Manager of Fish Health (company veterinarian) also visits each farm approximately every three months and her site visit schedule for 2014-2015 was observed.

Supporting Documentation Submitted:

- Senior Manager Fish Health (company veterinarian) site visits
- Fish Health Field Officer site visits (Tasman)

**Status of NC: CLOSED**

Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
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5.1.6.b	2014	Minor NC	During the last full production cycle, the unexplained mortality was greater than 40% of overall mortality at the farm site.	Based on pathology findings, there are multiple disease processes occurring at the Tasman region so it is difficult to ascribe to a single cause. <ul style="list-style-type: none"> <li>Physiological and metabolic effects of sustained high temperatures</li> <li>Jelly fish and algae</li> </ul> Infectious agents – Rickettsia (RLO) and Aquareovirus (ARV)	Multifactorial approach: <ul style="list-style-type: none"> <li>Summer study in collaboration with Skretting to develop better summer diets</li> <li>Increase of Jelly fish and algae surveillance</li> <li>Industry and Government (FHU) existing projects to develop vaccines for RLO and ARV</li> </ul>	Corrective actions to be assessed at the first surveillance audit
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**Progress against action plan:**

Total mortality for most recent harvested year class 13YC was over 6%. Unexplained mortality was less than limit of 40%.

Supporting Documentation Submitted:

- 13 YC Mortality Summary - Tasman

**Status of NC: CLOSED**

Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
5.1.5	2015	Minor NC	Viral-related diseases > 10% of total mortalities	These mortalities are due to POMV, pilchard orthomixovirus. High mortality levels are to be expected in naive populations of fish when exposed to a new virus, and this is likely to continue until some method of prevention, such	Work with the fish health unit to develop a vaccine against POMV Ensure that during outbreaks, biosecurity protocols are adhered to, to prevent spread Educate site on early detection	Corrective actions to be assessed at the next surveillance audit

				as a vaccine, is developed	for a more proactive approach Develop and implement fish health escalation policy	
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**Progress against action plan:**

N/A, new NC in 2015.

**Status of NC: OPEN**

**Evidence:** Mortality classified as POMV virus 38%. According to the Senior Manager of Fish Health, these classified unexplained mortalities are likely due to POMV, pilchard orthomixovirus. She considers that high mortality levels are to be expected in naive populations of fish when exposed to a new virus, and this is likely to continue until some method of prevention, such as a vaccine, is developed. Low mortalities due to other viruses are unusual.

Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
7.1.1 a, c, e	2015	Minor	Meetings with representatives of the affected community have not taken place bi-annually. At the meetings that have taken place, there is no evidence to show that the local community was asked to contribute to the agendas of these meetings.	<p>Community meetings and information sessions in Nubeena have traditionally been poorly attended.</p> <p>Tassal representatives met with elected local council members on 28/10/2015. Tassal informally sought guidance on the best way to engage with the local community. Advice was to support established local events (e.g. Nubeena Regatta) and use those events to educate community about operations.</p> <p>Documentation of formal meetings has not been undertaken by Tassal.</p>	<p>During meeting with council (28/10/2015), agenda items were sought by Tassal. All questions raised were answered however it was clear that the time frame was not adequate and a separate meeting will be scheduled in 2016</p> <p>One local councilor was present on Tassal research vessel during a recent environmental sampling event (17/12/2015)</p> <p>A community BBQ will be held in the first quarter of 2016. There will be an information display and appropriate staff present at the event. The</p>	Corrective actions to be assessed at the second surveillance audit

					advertisement and local promotion of the BBQ will invite community members to contribute to the topics covered by informational displays Meetings will be held with local councilors at least annually or as appropriate	
<b>Progress against action plan:</b>						
N/A – new in 2015.						
<b>Status of NC:</b>						
Open. Joseph Kochanski, August 25, 2015.						

Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
7.1.1.d and 7.1.3.c	2014	Minor NC (Upgraded to Major at 2015 surveillance audit)	Currently there is no direct communication with the community regarding antibiotic treatments and potential health risks.	Historically, Tassal has reported antibiotic use and supplied relevant information annually in their Sustainability Report. There is also information supplied on Tassal's current website (updated June 2014). Although Emergency Response Plans are in place, there is currently no communication with specific communities.	A series of presentations to community groups regarding Tassal operations to be scheduled for FY2014/FY215. These presentations if relevant to antibiotic use in the region, to include information regarding potential health risks associated with antibiotic treatments	Corrective actions to be assessed at the first surveillance audit
<b>Progress against action plan:</b>						
Tassal has not used antibiotics or other therapeutic treatments at its Dover site since the 2014 certification audit. As such, they have not needed to execute the proposed CAP for this NC and these requirements are currently not applicable.						

**Status of NC:**

Closed. Joseph Kochanski, August 25, 2015

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Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
7.2.2.a, b	2014	Minor NC	Currently there is no consultations with aboriginal groups	While significant engagement is undertaken in the communities in which Tassal operate, no engagement strategies have been implemented to consult with aboriginal groups specifically	Before the first surveillance audit in 2015 Tassal is planning to work with Cradle Coast NRM who are prepared to assist Tassal in forming a relationship with one of the indigenous organisations (Aboriginal Land Council of Tasmania). An initial framework for the relationship will be the inclusion of sites of aboriginal cultural significance in Tassal's employee induction package	Corrective actions to be assessed at the first surveillance audit

**Progress against action plan:**

Tassal has been in communication with members of the Aboriginal Land Council of Tasmania and is developing ongoing consultation around indigenous issues relevant to salmon farming.

Criteria 7.2.2. a,b is therefore considered to be closed.

Confidential information for Criteria 7.2.2 a,b. is provided in the Confidential Annex of this report.

**Status of NC: CLOSED, August 25, 2015. Joseph Kochanski**

Criterion	Year	Category	Summary of Finding	Client Root Cause Analysis	Client Action Plan	Deadline
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8.33.b	2014	Minor NC	DO saturation is not currently measured at Russell Falls and SALTAS, semi-closed hatchery systems that supplied some smolt to the farm site.	Alternate process currently being followed. Task specific equipment not yet received	Before the first annual surveillance audit, the DO saturation will be measured as per ASC requirements.	Corrective actions to be assessed at the first surveillance audit
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**Progress against action plan:**

Weekly to monthly records of DO in the outfall at the Russel Falls and SALTAS hatcheries were reviewed.

Supporting Documentation Submitted:

- Russell Falls results (Russell Falls & Karanja), Saltas Results (Wayatinah & Florentine)

**Status of NC: CLOSED**

## 6 Results and Conclusions

It is SCS’s view that Tassal Operations Pty Ltd’s (Tassal) salmon culturing site, Tasman Regions MF 190 Creeses Mistake, continues to meet the salmon standard of the ASC (V. 1.0) and complies with the ‘Requirements for Continued Certification,’ with the exception of two (2) new minor NC. Tassal shall submit an action plan to SCS for approval. Corrective actions for the new Minor NCs will be evaluated at the 2016 2<sup>nd</sup> surveillance audit.

## 7 References

DPIPWE (2002) Tasman Peninsula and Norfolk Bay Marine Farming Development Plan November 2005. Available at [http://dipwwe.tas.gov.au/Documents/D%27Entrecasteaux\\_-MFDP\\_-Feb02.pdf](http://dipwwe.tas.gov.au/Documents/D%27Entrecasteaux_-MFDP_-Feb02.pdf)

SCS global services (2014). Report for Tassal Operations Pty. Ltd: Tasman Region, MF190 Creeses Mistake. Full assessment against Aquaculture Stewardship Council (ASC) Salmon Standard V1.0. Available at: [http://www.asc-aqua.org/upload/3\\_20140919\\_Tassal%20Operations\\_Creeses%20Mistake%20Farm\\_FINAL.pdf](http://www.asc-aqua.org/upload/3_20140919_Tassal%20Operations_Creeses%20Mistake%20Farm_FINAL.pdf)