tassal®

Sustainability Report 2013

Key Facts

- Tassal is a vertically integrated company that includes freshwater hatcheries and saltwater aquaculture, Salmon processing, value adding stages through to distribution, wholesaling and export.
- Tassal is the largest producer of fresh Salmon products in the Australian market.
- Ownership: Tassal Group Ltd is a public company listed on the Australian Stock Exchange (ASX Code: TGR).
- Controlled entities:
  Tassal Operations Pty Ltd, Aquatas Pty Ltd.
- Head Office: Hobart, Tasmania.

Tassal Salmon

Tassal Salmon species of Atlantic Salmon is *Salmo salar.*

Our Production

- Harvest tonnage: 21,223 hog tonnes
- Fish in sea water as at 30 June 2013: 7,752,545
- Fish biomass in sea water as at 30 June 2013: 13,189 live weight tonnes
- Combined processing output: 21,198 hog equivalent tonnes

Our Network

- 2 directly controlled hatcheries – together with a majority ownership of Saltas Enterprise of Tasmania Pty Limited (Saltas), an industry hatchery
- 6 diverse marine farming locations
- 3 processing facilities
- 2 owned retail outlets
- 2,000 points of retail presence

Our People

Full time employees:	551
Part time employees:	31
Casual employees:	161
Seasonal employees:	64
Fixed term contract:	0
Temporary seasonal:	2

Tassal Group Limited
ACN 106 067 270
All correspondence to:
GPO Box 1645
Hobart Tasmania Australia 7001
Email: tassal@tassal.com.au
Web: www.tassal.com.au

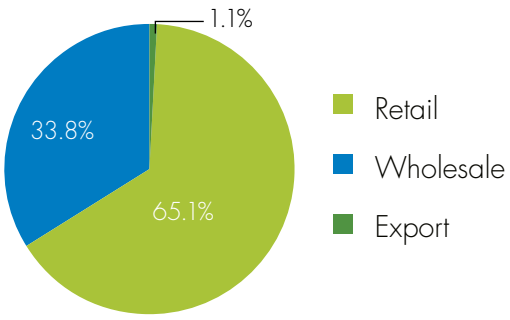
Our Brands

Tassal sells and markets branded and unbranded products.

Branded vs unbranded revenue & volume

	Volume %	Revenue %
Unbranded	69	62
Branded	31	38

Our Markets



Memberships

Tassal is a member of the following organisations:

- Tasmanian Salmon Growers Association
- Tasmanian Seafood Industry Council
- National Aquaculture Council
- Tasmanian Business Sustainability Roundtable
- Australian Human Resources Institute.

Board Membership:

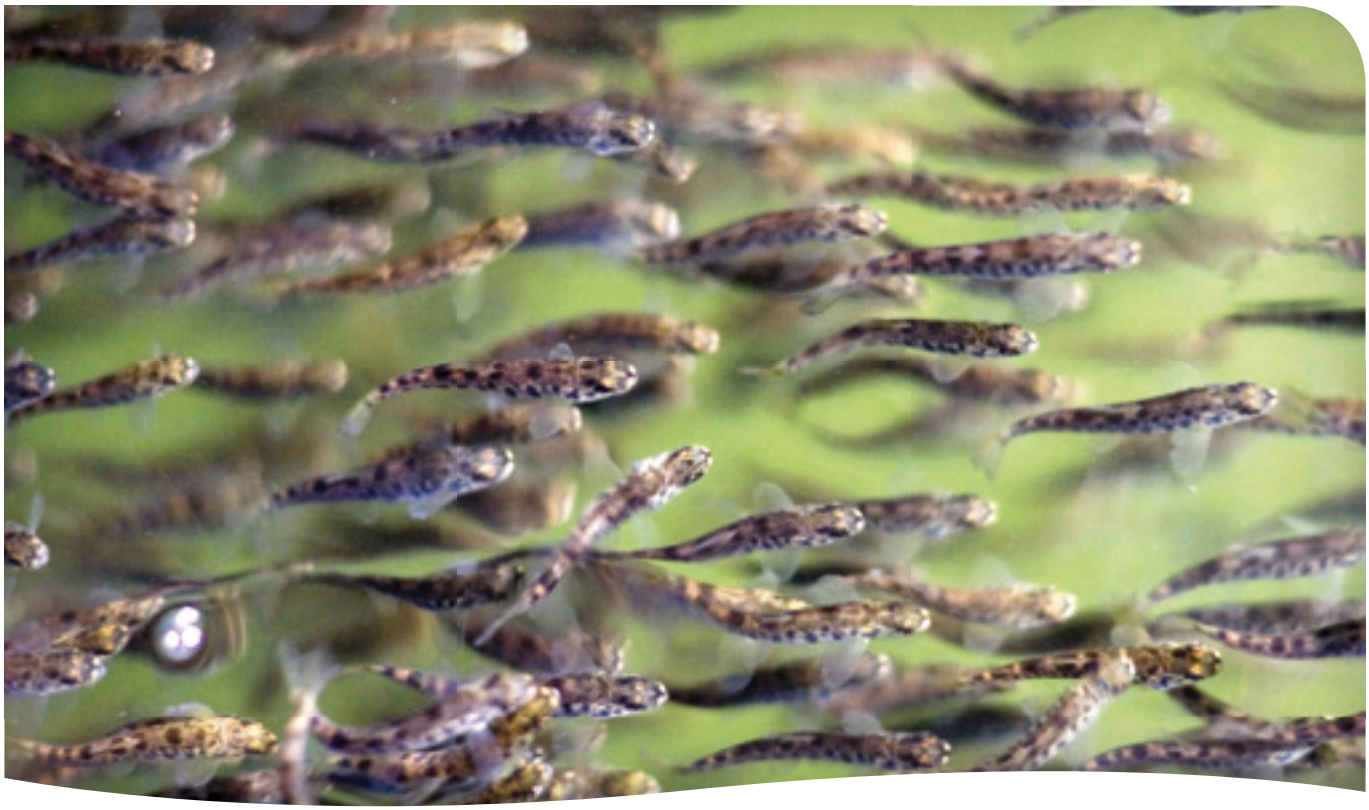
- Institute of Marine and Antarctic Studies (University of Tasmania).

Tassal staff also sit on the following committees:

- Agrifood Seafood Advisory committee
- SQF technical advisory committee
- Institute of Marine and Antarctic Studies Research Advisory Committee.


KEY
Marine farms
Processing facilities
Hatcheries
Tasmania
Macquarie Harbour
Russell Falls
Huonville
Rockwood Road
Huon
Dover
Margate
Channel
Tasman
Bruny
Great Taylors Bay

Contents



Message from our Chairman and Managing Director

As we sat down to write our third sustainability report, we reflected on the past reporting year, our accomplishments and our challenges.

Out of respect for the family of Ian Thomson, our employees and our communities, we need to acknowledge the tragic death of one of our own in December 2013. This needs to be acknowledged before we are comfortable presenting any other aspect of our company. Ian died working at a job he loved with people he respected. He died due to a terrible accident which will be reported on in further detail in our 2014 report. Those will be facts that are reported. Now we want to talk about the feelings we are having.

As a company we collectively grieved. The importance of family, community and safety were never more tangible nor more poignant. It is from that perspective that we introduce this next report with a focus on the human aspect of our business. The human aspect involves our employees, the communities in which we operate, the businesses we work with and the consumers of our salmon - in other words the socially important facets to our business - our social responsibility.

Overall, as our business grows it is more important than ever to be aware of our responsibilities to the local and national economy, our employees and the sustainability of communities in Tasmania.

A key platform to the ongoing success of our business is our motivation to ensure that we value and are valued by our best on ground team. Even through our most recent difficult times we continue to hold this aspect front of mind.
We believe that leadership, communication and respect are critical on this journey. We continue to invest in our training programs - developing the future leaders of the industry who will be focused on achieving balanced outcomes around safety, sustainability and commercial return.

We are extremely proud to have received the Tasmanian Government's Employer of Choice award and believe this is a reflection of our ongoing focus on our people.

This year we have once again increased the scope of our report by adding in our land based operations, with a focus on processing. This final addition means we are now reporting on our entire business operations.

Processing is the quiet achiever of the business. Our business excellence in processing allows the focus of the business to be on the growth of the market and our customers with the knowledge that we can produce the highest quality Salmon to meet market place demand. Our processing plants are considered best practice and our processing team takes great pride in their work place, work ethic and working safely. All three of our processing factories are located in rural Tasmanian communities and have been rebuilt in the past five years with leading technology to meet the demands of our growing business and the increasing consumer interest in Salmon.

From a financial and operational perspective, the Directors believe that Tassal is performing in line with its Strategic Plan.

Tassal's operational and financial performance has been assessed against the company's four strategic priorities:

1. Zero Harm
2. Optimise the business
3. Maximise cash flow and
4. Deliver acceptable returns.

Tassal's Board has endorsed a health and safety strategy that has as its core value Zero Harm for Everyone, Everywhere.

While a health and safety strategy was developed to deliver on our commitment to achieve a workplace where we deliver zero harm, and we effectively delivered on the key targets for FY2013 underpinning this strategy, we are still not at zero harm. We have charted a path that we believe will see the company achieve our zero harm goal by FY2016.

The safety performance of the business has on a site by site level improved during FY2013. At 30 June 2013, six of our 14 operating sites achieved our zero harm targets. Our focus is to ensure every Tassal site achieves the company's zero harm goal.

Key financial highlights for FY2013 were:

- Revenue increased to $272.805 million (FY2012: $262.683 million)
- Australian market sales revenue and volume growth of 17.22% and 14.4% respectively
- Operating EBITDA up 16.16% to $59.247 million (FY2012: $51.003 million)
- Operating NPAT up 20.11% to $26.606 million (FY2012: $22.151 million)
- Increased net assets, up 6.94% to $315.547 million (FY2012: $295.058 million)
- Gearing ratio (being net debt to equity) down to 18.40% (FY2012: 25.6%)
- Final FY2013 unfranked final dividend of 5.00 cents per share. Together with the interim dividend declared for FY2013 of 4.50 cents per share, the company's total

FY2013 dividend was 9.50 cents per share unfranked, up from FY2012's total dividend of 8.00 cents per share unfranked.

During FY2013, Tassal has also made significant progress in optimising the business from an operational perspective:

- A successful marketing campaign drove per capita consumption and moved volume into core domestic retail and wholesale markets and away from export and contract growing.
- Tassal implemented its new harvest strategy that aims to achieve optimal average size profile of harvest fish, together with maximising survival and overall biomass. We also began commercialisation of our selective breeding program (SBP) – with 59.2% input for the 2012 Year Class from SBP fish which will be harvested in FY2014. All of the input for the 2013 Year Class is forecast to come from SBP fish, with growth and Amoebic Gill Disease (AGD) benefits underpinning SBP.
- The approval of the Macquarie Harbour lease expansion and continued innovative fish husbandry practices continued to move towards achieving best practice processing returns.
- Tassal's processing facilities continue to lower operating costs and increase yields and recoveries. The throughput and yield benefits have allowed Tassal to continue maximising its direct supply of fresh Salmon products to retail customers, allowing the company to present a premium product, in a premium condition.
- Implementing further sustainability initiatives, Tassal is now achieving best practice Salmon production environmental practices which in turn has translated into operational certainty, competitive advantage in the market place and operational efficiencies. In addition, we have improved risk mitigation, particularly around operational risk in the marine environment.
- This past reporting year we successfully implemented Global Aquaculture Alliance's (GAA) Best Aquaculture Practices certification across all our farms and we are proud to say that we were the first in the Southern Hemisphere to do so. In addition, we piloted the first ASC (Aquaculture Stewardship Council) salmon standards in Australia in readiness for certifying to the ASC standard.

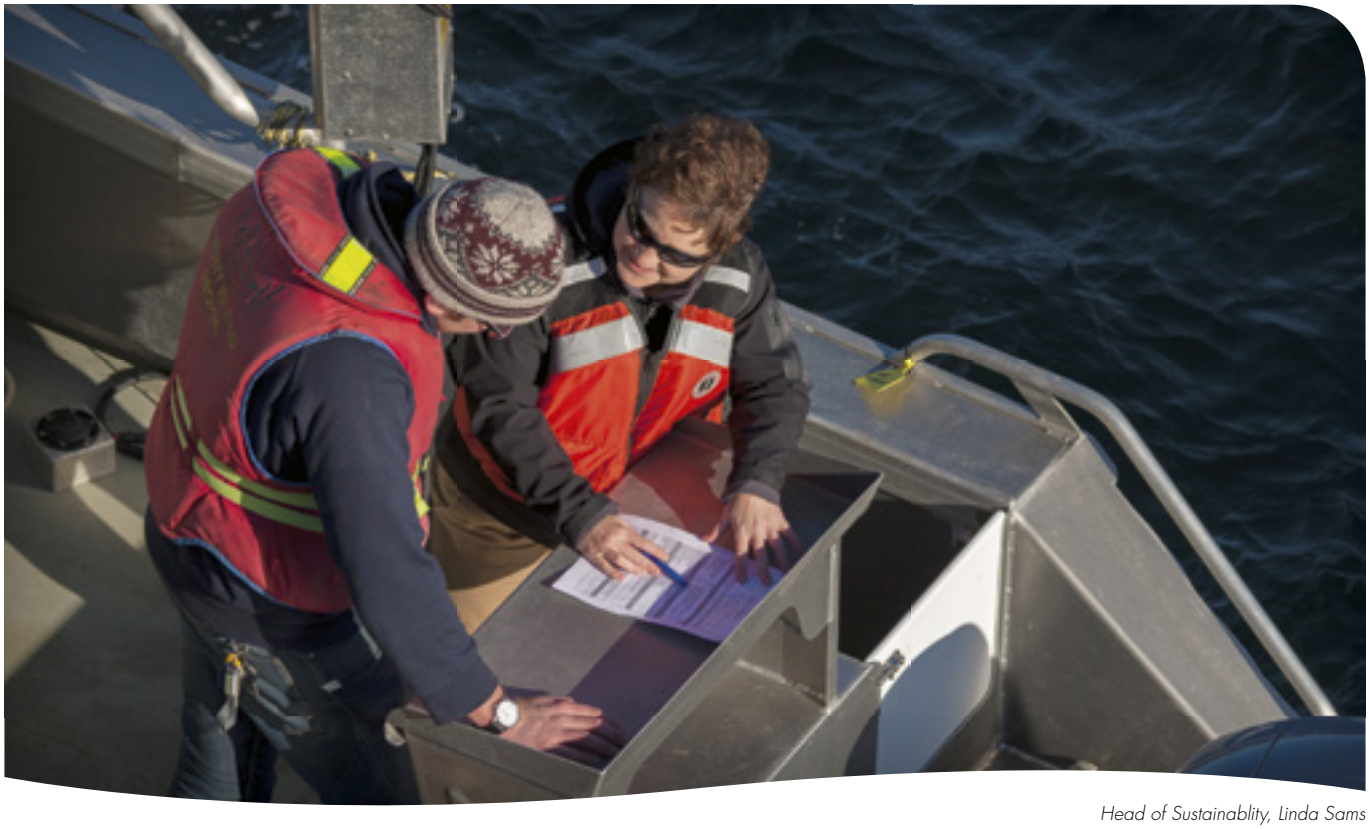
Finally, we have been benchmarked as one of the world's top three salmon farming companies in corporate, social and environmental reporting by seafoodintelligence.com. In the same reporting period we were also finalists in the Australasian Reporting Awards for sustainability reporting.

The above acknowledgements tell us we are moving in the right direction with our reporting, however, as always, we welcome your input and feedback on how we can do things even better. After all, this report is for you, our employees, our stakeholders and our customers. We want to do the right thing but we also want to tell it the right way.

Mark Ryan

Allan McCallum

Message from our Head of Sustainability



Head of Sustainablity, Linda Sams

In compiling our third sustainability report, I realised that I had taken little time to reflect back on the past year as we are always busy working on achieving our next set of targets. However ambitious and engaging looking forward is, it is not necessarily where the lessons are learned. Now is the time to take stock of what worked and what did not work in our approach to sustainability in the last reporting year.

Feedback from Tassal staff and external stakeholders contributed the most to us in calibrating our approach to our sustainability strategy. We also received some valuable feedback last year from Seafood Intelligence on how we may better communicate our sustainability strategy and performance to a broader audience and make data more accessible as a whole. We have taken their recommendations on board and have made some improvements in this current report, and importantly, refined our approach to how we present our information on the Tassal website.

An area highlighted for improvement included engagement with local indigenous communities. The traditional custodians of our land and sea have an inherent knowledge of sustainability that needs to further inform our direction. We are just starting the process of building these relationships and trust with the aboriginal community in Tasmania whilst recognising that this is not a process that can be rushed.

This past year we have initiated an important Maugean Skate project in Macquarie Harbour in direct response to stakeholder concerns regarding salmon farm development. This is a collaborative project involving all the salmonid farming companies in the Harbour. In the reporting year, we acted slowly in getting a community forum started in this region which has resulted in lost opportunities to properly communicate our activities. We are committed to doing a better job in the next reporting year.

Participation in various forums strengthened our understanding of our sustainability impacts at a local, national and global level. It also provided valuable insight to how we can better identify material environmental and social issues. We tend to

Now is the time to take stock of what worked and what did not work in our approach to sustainability in the last reporting year.

become slightly insular in our approach if we don't take the time to engage with a wider audience. This is an area that we have identified for improvement.

In the reporting year, we participated in two climate change studies – the first with the Tasmanian State government and the second with Kingborough Council. It seems we are on the right track as Tassal was used as a positive example of how a company can plan for and be mindful of their contribution to a changing climate.

Within FY2013, we achieved certification for all of our farms to Global Aquaculture Alliances Best Aquaculture Standards (BAP) and piloted the first Aquaculture Stewardship Council (ASC) salmon standards in Australia. This was a challenging undertaking but immensely worthwhile, driving operational excellence and accountability throughout the company. It is our goal to have all of our farms audited against BAP and ASC standards by September 2014.

We are making excellent progress across all areas of the business as you will read throughout this report.

At Tassal, our Sustainability department is seen as a profit centre that is core to our business planning. Australian researcher Dexter Dunphy has captured the concept of sustainability as core to a profitable business in his useful model of corporate evolution. The model captures the concept of what managing for sustainability entails, and provides a useful tool for benchmarking and measuring sustainability performance.

Using Dunphy's model, we see Tassal as moving rapidly into the 'sustaining corporation' phase with a goal of moving into the 'transforming futurists' phase. In other words we are redefining our business environment in the interests of creating a more sustainable world in parallel to supporting Tassal's core strategies. This in turn will create a more constructive culture that continually renews the long-term viability of the organisation.

Listening to external stakeholders' input will be a priority for us in the coming year as we prepare to grow the marine side of the business and request some changes to our existing marine sites. In FY2013, Tassal embarked on the South East Region Site Optimisation Plan, which aims to deliver sustainable growth, improved fish health and performance and improved environmental management. I have heard the term 'sustainable intensification' this past year, which means doing more with a lesser footprint. I am sure there could be many interpretations of this phrase. However for me, it is about Tassal delivering better returns economically and socially while we minimise our negative impacts.

The optimisation plan will involve the amendment of a number of our existing sites and in some cases enlarging the sites.

Tassal's Environment & Sustainability Team

The plan will also involve the development of a new salmon farming region. The concept is to set up our sites for the best fish health, best fallowing potential and best fish performance. We realise there is a limit to how many new sites we can have in this existing area and we need to use the ones we have to the best of their capability taking all factors into consideration. This is 'sustainable intensification' in practice.

Although this sounds great in theory, it is not always easy finding ways to share valuable marine space. We understand and respect other uses and users of our waterways and our goal is to find a way to co-exist and hopefully enhance this region. Of course we will provide jobs and economic benefit to Tasmania, but beyond that we want to be a trusted neighbour and an enabler of strong and vibrant local communities. Will there be conflict in the process? Yes. However, it will also be an opportunity to engage more fully, hear stakeholder concerns and feedback and better understand the environment in which we operate.

As we well know, engagement happens every day, not only for specific projects and it can happen in many different ways. Engagement is not merely a plan - it is a culture within a company. This culture is supported by good internal communication, transparency of operations and general participation in our local communities. Our way forward is to implement mechanisms that encourage stakeholder communication both internal and external to our operations. By focusing on this, we are working towards becoming an ever more transparent and trusted operation.

Linda Sams

Strategic Priorities for FY2014

Tassal's over-arching priority is to deliver on the underlying operational and financial metrics of the Company's Strategic Plan. The Company believes that it has in place the financial and operating platform to be able to do this, together with a favourable supply/demand dynamic in the domestic market. To achieve the Strategic Plan, Tassal has in place the following strategic priorities for FY2014:

Zero Harm

- **Maintain** compliance focus – due diligence
- **Drive/Embed** continued cultural change towards interdependent behaviours – team & individual level
- **Leadership** – accountability/performance management

KPIs	FY14
LTIFR	<6.0
Incident rate	<1.2
ATLR	4
MTIFR	80
Scorecard measure	91%

Optimise the business

- Domestic market per capita consumption growth – whilst **maximising** pricing and marketing exposure (for the right spend)
- **Ensure** optimal balance of Tassal supply/demand equation – **imports** to balance supply
- Plan and allocate fish resources across supply chain to **maximise value** – right fish, right size, right time, right use, right products
- **Global best practice** cost of growing and processing
- **Champion of sustainable** Salmon industry
- Best on ground team

Maximise cashflow

- **Optimise** both Biological Feed Conversion ("BFCR") & Economic Feed Conversion ("EFCR")
- **Minimise** stock on hand (including Seafood Development) to ensure **minimise** working capital cycle and **maximise** cashflow
- **Maximise** the use of assets – **responsible** capital spend
- **Working capital cycles** – ensure minimum permissible tolerance around collection cycles

Deliver acceptable returns

- **Key focus** on "ROA" (Return on Assets) to ensure the efficient use of the Company's asset base for earnings growth
- **Proactive management** of the risk environment and "financial health" of the Company – ensure risk mitigated and sufficient headroom in core debt to absorb "shocks"
- **Strategic Planning** – consideration of the implications of current strategies/tactics in a short to long term context to deliver acceptable returns

About this Report

In determining material issues for this year's report, we have considered stakeholder feedback resulting from the publication of our previous reports and from our Stakeholder Advisory Committee. In addition, we have considered stakeholder feedback arising from workshops and public submissions.

Data from previous years has been included to illustrate year on year trends where the data is available. We refer to our FY2013 annual report and the Tassal website as necessary, to provide additional information and/or context.

Our last sustainability report was published in January 2013 and covered the FY2012 reporting year, and we will report our sustainability activities annually.

The report has been prepared in accordance with Global Reporting Initiative (GRI) Food Processing Sector Supplement G3.1 Level B requirements and has received a GRI Application Level Check.

Report Scope and Boundary

This report covers the financial year 2012/2013 (1 July 2012 to 30 June 2013), referred to throughout the report as 'FY2013'. The report records our performance for material issues and operational areas of Tassal. We have expanded the boundary of our report this year by including environmental and animal welfare indicators relevant to our processing facilities.

There are no other limitations on the scope and boundary of this report. Tassal has taken into consideration the Global Reporting Initiative (GRI) principles on defining report content in the selection of material aspects and indicators.

Occupational health and safety (OH&S) data is now reported as Work Health and Safety (WHS) data due to the harmonising of Australian state based WHS legislation. Data measurements, techniques and calculations have been described through the report, and restatements on data calculations have been clearly published.

No joint ventures, subsidiaries, leased facilities, or outsourced operations have been reported on as they are immaterial to the environmental, social or economic impacts of Tassal or do not exist. No significant operational changes occurred in the reporting year. Tassal's operations are only located in Australia.

Tassal did not seek external assurance for this report, however, all financial and food quality data is externally assured. Our marine farming operations data is also externally assured through the Best Aquaculture Practices Environmental certification gained during the reporting year for all of our marine farms.

Improving our Report Scope

	FY2011	FY2012	FY2013
Environment	Marine Operations only	• Marine Operations • Hatcheries	• Marine Operations • Hatcheries • Processing
Animal Welfare	Marine Operation only	• Marine Operations • Hatcheries	• Marine Operations • Hatcheries • Processing
Human Resources (HR)	All of business		
Occupational Health & Safety (OHS)	All of business		
Quality	All of business		

Corporate Governance

Tassal is committed to maintaining high standards of corporate governance appropriate to its size and operations to effectively manage risk, improve performance and enhance corporate responsibility. Unless explicitly stated otherwise in our 2013 Annual Report, the Directors believe that Tassal complies with the core principles and underlying recommendations of the ASX Corporate Governance Council's 'Corporate Governance Principles and Recommendations'.

Directors current, as at 30 June 2013 include Mark Ryan, Managing Director and Chief Executive Officer, and five male non-executive directors with additional responsibilities, including Allan McCallum, Chairman. One of those non-executive directors was appointed during FY2013.

Four of the five non-executive directors are considered by the Board to be independent directors as defined by the ASX Corporate Governance Council.

For further information on Tassal's Corporate Governance structure strategy and policies, please refer to our 2013 Annual Report or our Corporate Governance Policies web portal (www.tassal.com.au/annual-reports and/or www.tassal.com.au/governance-policies).

Our Financial Performance

The table below reports comparative key consolidated financial performance indicators for FY2013 and FY2012.

	Financial Year Ended 30 June 2013 $'000	Financial Year Ended 30 June 2012 $'000	Period Movement up/(down) $'000	Period Movement up/(down) %
Revenue (from all sources)	272,805	262,683	10,122	3.85%
EBITDA	69,033	60,540	8,493	14.03%
EBIT	53,501	45,196	8,305	18.38%
Profit before income tax expense	47,502	38,705	8,797	22.73%
Income tax expense	(14,045)	(10,618)	3,427	32.28%
Net profit after income tax expense	33,457	28,087	5,370	19.12%
Basic earnings per share (cents)	0.2287	0.1920	0.0367	19.12%
Diluted earnings per share (cents)	0.2270	0.1911	0.0360	18.82%
Gearing Ratio	18.40%	25.56%	(0.072)	(27.99%)
Interest Cover (x)	8.92	6.96	1.96	28.08%
Net Assets ($'000)	315,547	295,058	20,489	6.94%
Net Assets per Share ($)	2.16	2.02	0.14	6.94%
NTA ($'000)	276,512	256,023	20,489	8.00%
NTA per Share ($)	1.89	1.75	0.14	8.00%
ROE (NPAT/Equity)	10.60%	9.52%	0.011	11.38%
ROCE (EBIT)/Debt + Equity)	14.32%	12.20%	0.021	17.38%
ROA (EBIT/Total Assets)	10.56%	9.21%	0.013	14.62%

Definitions:

- *Interest Cover (x): EBIT/finance costs (Note: exclusive of borrowing costs capitalised to biological assets pursuant to AASB 123 'Borrowing Costs')*
- *NTA ($'000): Total equity less goodwill and other intangible assets*
- *NTA per Share ($): (Total equity less goodwill and other intangible assets)/shares on issue*
- *ROE : Net profit after tax/total equity*
- *ROCE: EBIT/Net debt plus total equity*
- *ROA: EBIT/total assets.*

Notes:

- *Full financial disclosure can be accessed in our 2013 Annual Report (see: www.tassal.com.au)*
- *Since the last reporting year, we have changed the way we report a part of our tax expense in FY13. The FY12 numbers reported now reflect a 'like with like' comparison. Consequently, the reported income and EBITDA increased by $981,000 (non-refundable tax offset for eligible R&D activities) as did the tax expense. The net profit after tax number is the same.*
- *Payments to capital providers and government are not included as Tassal does not separately disclose this information. Employee compensation and payments are not included in this table (key management personnel and payments are disclosed in our Annual Report*

Awards

Seafood Intelligence International Benchmarking

Tassal was excited and proud to be benchmarked as one of the world's top three salmon and trout farming companies in corporate, social and environmental reporting by Seafood Intelligence.com in August 2012.

This was a significant improvement from the previous 12 months having moved up from 21st position against the same international benchmarks from the previous year.

SeafoodIntelligence.com is an independent international seafood market intelligence news service and information portal aimed at all global seafood sector stakeholders. The seafood intelligence report is an annually published comprehensive and technically-detailed review of the global industry. The report is designed to help key players and stakeholders (including environmental NGOs and retailers) assess the level of proactive/voluntary transparency and communication displayed by Salmon farmers worldwide as they relate to corporate, social and environmental sustainability reporting.

Employer of Choice Award

Tassal won the Tasmanian Employer of Choice Award in FY2013. Tassal was recognised alongside 13 other Tasmanian organisations. The award criteria are linked to people-based initiatives and programs demonstrating an organisation's commitment to its people. As part of the selection process, employees are interviewed directly and the judging panel assesses career development pathways, leadership, communication and the encouragement of innovation.

Employers of Choice have lower levels of staff turnover and absenteeism, higher levels of productivity, are profitable and successful, and, because of their reputation, receive unsolicited applications from highly skilled people.

2013 Tasmanian Seafood Industry Awards

Tassal was honoured with two awards by our peers in the Seafood Industry at the Tasmanian Seafood Industry Awards hosted by the Tasmanian Seafood Industry Council. We received the Environmental Stewardship Award for our demonstrated leadership, commitment and innovation in developing and implementing our sustainability initiatives across the business and for the leadership and substantial contribution to improving environmental stewardship/ sustainability within the seafood industry.

Tassal also received the Business Award. We were honoured to share this award with shellfish grower Spring Bay Seafoods. The award was received on the basis of our sustained business growth, innovation, excellence in product, service and marketing, and the contribution we have made towards a positive future for the seafood industry.

Australasian Reporting Awards

Tassal was pleased to be a finalist in the 2013 Australasian Reporting Awards in the category Special Award for Sustainability Reporting. The Awards recognise reports that not only provide a balanced and reasonable picture of their economic, environmental, and social performance, but also facilitate comparability, benchmarking and assessment of performance and address issues of concern to stakeholders. The credibility of the information is also assessed.

The journey to sustainability: WWF-Australia and Tassal Group in partnership

Since 2012, WWF-Australia and Tassal have worked together in a partnership for sustainable aquaculture. The aim of this partnership is to ensure that all Tassal seafood is produced through the highest global standards of responsible aquaculture practices by 2015.
As the industry leader in Australian aquaculture, Tassal's commitments will have a far-reaching impact on the seafood supply chain in Australia.

In this second year of partnership, WWF-Australia and Tassal have made great progress together. Tassal has:

- Been benchmarked as one of the world's top three salmon and trout farming businesses in corporate, social and environmental reporting in 2012
- Invested in significant resources to roll out new, predator-proof 'Kikko nets' and seal-proof birds nets to minimise interactions between people and seals. Tassal staff are also now fully trained on seal interaction and behaviour
- Developed and implemented fish health management plans for all operational sites around Tasmania
- Reduced the use of copper based anti-foulant paints from 107KL to 30KL, signalling progress ahead of schedule towards a commitment to eliminate these chemicals by 2014. In addition, Tassal invested in in-situ cleaning technology to assist in moving away from all forms of anti-foulant products
- Continued to openly and transparently report all seal interactions within aquaculture operations
- Reduced wildlife interactions with seabirds, seals and other marine mammals
- Reduced the amount of wild fish in Salmon feed.

Key to the partnership is Tassal's aim to become the first aquaculture operation in the Asia-Pacific to achieve Aquaculture Stewardship Council (ASC) certification for salmon. WWF-Australia is helping Tassal on this journey by providing expert advice on the development and implementation of Tassal's sustainability strategy, reviewing Tassal's operations and providing guidance through the various stages of ASC certification.

"We are proud of our partnership with Tassal, a company which is demonstrating leadership to mitigate the environment impacts of aquaculture.

Poorly managed aquaculture operations can have impacts on our marine species and environments. But when done properly, aquaculture can indeed take pressure off marine ecosystems by reducing exploitation of wild caught fisheries.

Tassal may become one of the first salmon farms in the world to be deemed responsible through ASC certification - an independent and scientific certification process.

I would like to congratulate Tassal on their continued efforts, and look forward to working in partnership over the coming years."

Dermot O'Gorman,
Chief Executive Officer, WWF-Australia

The ASC's standards include strict requirements for minimisation of escapes, chemical use, predator control and effluent release. There are also strict requirements for feed ingredients from sustainable sources, habitat protection and freshwater smolt production. These requirements ensure that only the most up-to date operators and those with the best sites will be able to comply with the standards and gain ASC certification. This journey is progressing well, with a robust analysis of Tassal operations against the ASC salmon standard now complete and pre-assessment completed during the reporting year. We're looking forward to the next step in the journey to becoming certified.

More information about WWF-Australia's Sustainable Seafood Charter can be found at: www.tassal.com.au/sustainability/accreditations

Stakeholder Engagement

Tassal recognises and values that strong stakeholder relationships are essential to the success of our sustainability strategy. What is important to our stakeholders is of importance to Tassal and we are always working to improve our understanding of varied stakeholder perspectives so that we can respond accordingly, either by enacting operational change, or communicating the reasons why we are unable to change the way we do things.

There are many examples of how we have altered operational practices in response to feedback from stakeholders. (e.g. reducing forage fish inclusion ratios in our sites as feed is a direct response to feedback from Environmental NGO's, noise mitigation at some of our sites as a result of feedback from neighbours). The content of this report is a direct reflection of stakeholder feedback and the material issues that were communicated to us, indicating our ongoing commitment to transparency.

How we present our sustainability information to stakeholders is also a focus for us, and we will produce fact sheets on key material issues to ensure that this information is accessible to a broader range of stakeholders. Our stakeholder engagement model is benchmarked against national and international Salmon and other food industry producers and retails as well as Australian resource based industries.

Each year, our Sustainability Report Advisory Committee provides input into the development of the report. Our primary stakeholder groups are customers, investors, employees, suppliers and contractors, government, Environmental Non-Government Organisations (ENGOs), research organisations, neighbours and industry.

In the FY2013 reporting year, our stakeholder engagement activities included the following:

Topic	Antibiotic use
Category (Environmental, Social, Economic)	Environmental
Stakeholder Group	ENGOs
How we engaged	Sustainability Report Advisory Committee, Environmental Defenders Office (EDO) Conference, media monitoring and websites, one-on-one liaising
What stakeholders told us	For Tassal to reduce amount of antibiotics used in growing our Salmon
Our response	We invested in vaccines and preventative fish health, and transparently reported information regarding antibiotic use in our operations
Outcomes	• FY2013 level of antibiotic use is 53% of FY2012 use (g/tonne of fish produced) • Completed implementation of the Fish Health Management Plan

Topic	Copper based anti-foulant
Category (Environmental, Social, Economic)	Environmental
Stakeholder Group	ENGOs, Community
How we engaged	Sustainability Report Advisory Committee, EDO Conference, media monitoring and websites, one-on-one liaising
What stakeholders told us	Stakeholders expressed concern regarding the environmental impacts of copper based anti-foulant used on Salmon sea cage netting
Our response	We developed the in situ Marine Inspection Cleaner (MIC) which is now used across the industry in Tasmania and overseas
Outcomes	As at 30th June 2013, only seven anti-fouled nets were left in the water, representing less than 4% of Tassal nets in the water. Tassal's last anti-fouled net will be out of the water early in 2014.

Topic	Environmental certification
Category (Environmental, Social, Economic)	Environmental/Social
Stakeholder Group	ENGOs, community groups
How we engaged	Sustainability Report Advisory Committee, EDO Conference, media monitoring and websites, one-on-one liaising
What stakeholders told us	Third party certification of activities would give some level of assurance that environmental and social impacts are minimised
Our response	• Consolidated our partnership with WWF-Australia • Aligned internal reporting systems • Improved practices across certification parameters
Outcomes	• All Marine Operations and primary processing facilities are now certified to Best Aquaculture Practices (BAP) Salmon Farming Standards • Pre-assessment started for Aquaculture Stewardship Council, ASC Salmon Standard certification with public 'intention to certify' declared as part of WWF-Australia partnership

Topic	Reduction of wildfish inclusion in feed
Category (Environmental, Social, Economic)	Environmental
Stakeholder Group	ENGOs
How we engaged	Sustainability Report Advisory Committee, EDO Conference, media monitoring and websites, liaison, partnership with WWF-Australia
What stakeholders told us	They wanted us to ensure that we took steps to preserve wild fish stocks
Our response	Aggressive substitution of feed ingredients, commitment under WWF-Australia partnership agreement (Sustainable Seafood Charter)
Outcomes	• A reduction in fish meal in our feed of 4.4% since FY2012 • Wild fish sourced from responsibly fished forage fisheries

Topic	Reduction of noise from farms
Category (Environmental, Social, Economic)	Social/Environmental
Stakeholder Group	Neighbours that reside close to our operations
How we engaged	One on one liaison, responded to complaints, informed on our activities through regular contact
What stakeholders told us	Some farms disturb the rural peace and quiet
Our response	• Introduced noise reduction protocols • Worked with regulators • Engaged acoustic specialists and invested in sound mitigation • Developed anew equipment policy regarding minimum noise requirements • Educated staff
Outcomes	• Significant noise reductions • Reduction in complaints • Improved neighbour relationships

Topic	Reduction of wildlife interactions
Category (Environmental, Social, Economic)	Environmental
Stakeholder Group	ENGOs
How we engaged	Sustainability Report Advisory Committee, EDO Conference, media monitoring and websites, one-on-one liaising
What stakeholders told us	Reduce wildlife interactions
Our response	• Employed a dedicated wildlife management team • Developed protocols • Educated staff • Invested in infrastructure • Invested in staff training
Outcomes	• Significant reduction in entrapped birds and bird mortality • Significant reduction in seal mortality • Public commitment not to euthanise seals

Topic	Expansion in Macquarie Harbour
Category (Environmental, Social, Economic)	Environmental/Social
Stakeholder Group	ENGOs, West Coast community, tourism operators
How we engaged	Sustainability Report Advisory Committee, media monitoring and websites, one-on-one liaising, public representations received by DPIPWE regarding the expansion
What stakeholders told us	We need to: • Look after water quality in the harbour • Not impact the ecology of the harbour • Move shore-based operations out of the central tourist district of the town
Our response	• Investment in research • Commitment to the Aquaculture Hub • Consultation with tourism operators regarding navigational concerns
Outcomes	• Maugean skate research funded • Establishment of an approvals process to establish Aquaculture Hub underway (construction due to commence FY2014) • Additional sampling points and depths to evaluate bottom water conditions in harbour • Research underway examining the characterisation of benthic pelagic interactions in Macquarie Harbour • Re-positioned lease boundaries and re-configured navigational lights

Goals and Targets

Setting ambitious goals and targets are an important part of improving outcomes across all business areas. Last reporting year, we set many goals and targets, some of which were not achieved due to the ambitious number that we set.

We do hope to get the balance right in the future. This reporting year, we have focused on committing to fewer achievable yet challenging goals and targets. All goals and targets are endorsed by the Tassal Board.

Progress on FY2013 Goals and Targets

Further integration of sustainability measures at Tassal			
FY 2013 Sustainability Goals	Target	Did we achieve them?	Commentary
Achieve accreditation of an Environmental Management System (EMS)	Achieve third party accreditation	No	The EMS has been superseded by our BAP & ASC Certification
Achieve Best Aquaculture Practice (BAP) certification	Report on progress	Yes	All marine farming regions certified & FY2014 focus on certifying primary processing facility at Dover.
Achieve Aquaculture Stewardship Council (ASC) certification	Report on progress	In progress	Pre Assessment for ASC began June 2013
Develop actions to address inefficiencies highlighted in the Life Cycle Assessment (LCA)	Report on progress	In progress	A LCA Action Plan will be developed that includes the development of a LCA metrics database
Complete implementation of Fish Welfare Standards across operational regions	Report on progress	Yes	Fish Health Management Plans rolled out to all sites
Implement comprehensive Amoebic Gill Disease (AGD) Strategy	Report on progress	Yes	Incorporated in Fish Health Management Plans

Environment			
FY 2013 Sustainability Goals	Target	Did we achieve them?	Commentary
Further focus on dissolved nutrients and water quality	Communicate modelling results	In progress	A scientific review has been conducted by IMAS
Review state of knowledge of seal populations and conduct ecological risk assessment for seals in Tasmania	Complete reports	Yes	Recommendations have been implemented into our wildlife interaction plan
Set targets to reduce energy use	Report action plan	No	To be reviewed as part of LCA commitments for FY2014
Interaction with critical or sensitive habitats and species	Map and describe interactions	Yes	Skate research, macroalgae assessments, baseline surveys
Report on freshwater use across company	Report freshwater used	Yes	
Commercial application of KikkoNets	Report results	Yes	
Report on Joint Conservation projects with WWF-Australia	Report results	Yes	
Increase Staffing in wildlife management	Implement staff increases	Yes	
Develop framework for skill sharing with developing countries	Report results	In progress	Commitment to begin first project
Develop Life Cycle Assessment Action Plan	Report progress	In progress	Data collection methodology under review

People			
FY 2013 Sustainability Goals	Target	Did we achieve them?	Commentary
Continue focus on improving safety	Ensure compliance with new National WHS requirements	Yes	Significant improvement in safety culture achieved – on journey to interdependence
Continue focus on improving safety	Further Certificate IV OHS training	Yes	Program support continued with intention to continue into next FY
Improve communication	Launch Corporate Strategy Pack	Yes	Increase in briefing sessions and formal and informal communication plans
Revise performance review process	Achieve better alignment to Corporate Strategic Plan	Yes	Format revised - further revision due next FY reporting period
Update induction program	Revise method of delivery	In progress	Induction process reviewed – electronic platform under development

Community			
FY 2013 Sustainability Goals	Target	Did we achieve them?	Commentary
Increase community engagement events	Report number of events	Yes	
Create newsletter	Implement newsletter	No	This deliverable will be re-examined as part of a community communication strategy review
Implement community trust fund in Strahan	Trust fund implemented	No	Not implemented within report scope
Create Framework for knowledge bank	Report on knowledge bank	In progress	Skills for Sustainability and WHS Skills programs have begun.

Food Safety & Quality Accountability			
FY 2013 Sustainability Goals	Target	New or Ongoing goal	
Introduce reviewed document management system	Implement QPulse Implementation	Yes	
Expand supplier audit program to better align sustainability and ethical aspects	Fully revise current process	In progress	

Goals and targets for FY2014

Goals	Targets
Environment	
Achieve best Salmon farming practice certification across all operations	Achieve ASC certification across all marine and freshwater operations
Operate responsibly alongside wildlife	Develop a seabird rescue strategy
People	
Continue our journey to safety interdependence	Achieve AS 4901 compliance
	Conduct safety climate survey
Improve induction delivery	Launch web based induction platform
Community	
Improve communication with key stakeholders	Develop a series of fact sheets about our activities and practices on key material issues
	Hold two open days in regional centres
Food Safety & Quality Accountability	
Better align sustainability & ethical aspects of supplier audit program	Fully revise current process
Ensure factory practices align to best practice	Pilot new standard with external partners

Compliance

At Tassal, we realise that compliance is not optional and that it is tied to the law, environmental, health and safety requirements and relevant community expectation. Compliance forms the first step in an effective risk management system. Tassal is moving beyond a 'compliance only' culture towards being a more proactive champion of sustainable business practices. Compliance remains a key indicator of the success of our processes and a benchmark to alert us to areas requiring improvement.

Compliance in Hatcheries

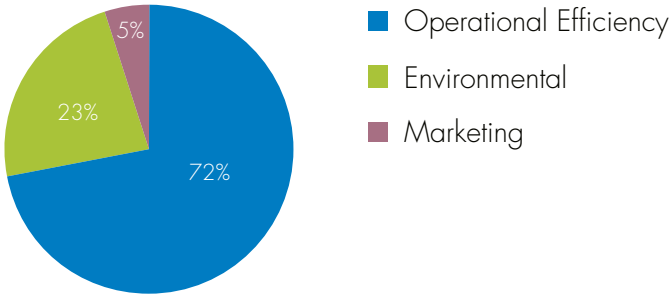
In the reporting year, we achieved 98.4% compliance at Rookwood Road Hatchery and 100% compliance at Russell Falls and Karanja.

Compliance in Marine Operations

Tassal once again achieved excellent compliance with regulations across our Marine Operations. In FY2013 we received nine letters from DPIPWE advising us of breaches to management controls relating to the position of moorings, buoys and navigational markers. No infringement notices were issued and no monetary penalties were incurred.

Additionally, Tassal advised DPIPWE of a benthic non-compliance in Macquarie Harbour. This is discussed fully in the Benthic and Water Quality Management section of this report.

Research and Development



Tassal has continued to collaborate with various research partners in research and development (R&D). In the reporting year, our R&D focus has shifted to optimising operational efficiencies.

Examples of R&D projects that Tassal has participated in or initiated include:

- Evaluation of predator control, bio-fouling reduction, reduction in AGD bathing, improvement in growth rates and feed conversion rates (Kikko nets)
- AGD resistance - learning from other species to bolster the natural Atlantic Salmon response
- Assessment of Orthomyxo-like virus pathogenicity in Atlantic Salmon
- Culture and cryopreservation of *Neoparamoeba perurans* (AGD)
- Characterising benthic pelagic interactions in Macquarie Harbour - organic matter processing in sediments and the importance for nutrient dynamics
- Movement, habitat utilisation and population status of Maugean skate
- Upgrading of skin trim line - waste removal. Redesign to reduce manual handling, product on floor, and save space.

Climate Change

Tassal is preparing for climate variability and climate change. Even in the face of this challenge we see potential opportunities that are emerging for us and the aquaculture industry in general. As a primary producer the climate plays an important role in Tassal's operations. The majority of climate related challenges are associated with the direct and indirect impacts on the Salmon. Understanding the probable long term impacts of climate change and potential opportunities is an important sustainability focus for the company.

Tassal has the discipline to continuously plan several years in advance and has a sophisticated and well maintained risk register to assist with benchmarking progress in all areas of risk mitigation, including predicted climate change impacts.

In addition to planning to mitigate potential risks, it is reasonable to see opportunities emerging for Tassal from climate change. As other global food production feels the stress of climate change it is likely that we may be able to provide a reliable source of protein well into the future. Opportunities also exist for us to extend our knowledge of adaptive practices to developing countries as part of a company volunteer scheme. The company is currently investigating this approach.

The main areas that have been identified to be associated with predicted climate change are:

- **Dry summers and extreme temperatures**: Dry summers can affect the supply of fresh water used in our hatcheries. Fresh water is also used for bathing fish at marine sites in order to combat the effects of amoebic gill disease (AGD). On extremely hot days there is a risk that water temperature can increase which could lead to an increased chance of thermal stress in our Salmon by the decreased availability of oxygen in the water.
- **Heavy rainfall**: Heavy rainfall can have an indirect impact on the organisation through runoff issues (e.g. turbidity, eutrophication), into waterways which could affect the health of the Salmon.
- **Extreme tides**: At present extreme tidal events have a minimal impact on the marine operations. To date there has been only one period in which there has been damage to some coastal infrastructure due to the combination of a king-tide and prevailing wind.
- **Incremental changes**: Incremental changes (e.g. ocean acidification, salinity and increase average water temperature) may have direct and indirect impacts, although this issue requires further research. Incremental changes of concern include increased average water temperature, changes to life-cycle timing, growth rates, increased risks associated with AGD, increased occurrence of jellyfish (which sting the Salmon and clog up pen netting) and the potential for unknown impacts associated with changes to ocean biological systems.

- **Storms**: Large storm events have the potential to disrupt the supply chain (e.g. transport and energy networks).
- **Bushfire**: Although it has not yet affected the organisation directly, large bushfires can pose a direct threat to land-based assets as well as affect the supply chain through supplier and transport disruptions.

Tassal anticipates and plans for these projected risks and changes through the following adaptation responses:

- **Science-based information**
  Tassal engages scientists from the University of Tasmania, the CSIRO and other organisations to identify emerging climate trends, system responses and adaptation options. Tassal also closely follows global trends, science and industry responses.
- **Selective breeding**
  The company continually engages in a selective breeding process (non-GMO) to develop fish that are more resistant to AGD in warmer waters and can thrive in lower oxygen conditions.
- **Comprehensive environmental monitoring**
  We invest in understanding the natural environment in which we operate and undertake a range of monitoring practices to identify any early indicators of concern.
- **Additional supplies** (fish and eggs)
  Tassal maintains its own internal product redundancy by having backup supplies of fish and eggs should any event affect the current population.
- **Diversification**
  The company maintains a diversified geographic portfolio of operations and constantly reassesses these locations against key performance indicators. Tassal is currently considering the viability of shifting to offshore waters should the need occur.

Tassal's approach to future challenges is framed with an optimistic lens. The company is an early adopter of innovative solutions. We believe in embracing change which is reflected in our commitment to minimising both our direct impacts on the natural environment.

Respecting the Natural Environment

Responsible Salmon farming requires the understanding and best practice management of the environment and our ecological impacts and effects to biodiversity as a result of our farming practices. Managing our interactions with wildlife, sensitive habitats combined with effective fish health management, all serve to reduce these impacts. This remains a key cornerstone of our internal environmental management program which is closely managed through compliance with regulations, environmental certifications and the setting of internal goals and targets.

We are committed to achieving best practice in our waste management practices, water quality management, freshwater use and energy use throughout our hatcheries, processing and marine operations, in addition to our core focus area of species interactions including predation and competition, genetic impacts, disease impacts, and habitat alteration.

Best Aquaculture Practices (BAP) certification and embarking on our Aquaculture Stewardship Council (ASC) certification has assisted us enormously in reviewing, improving and implementing best practices across each of these areas.

Life Cycle Assessment

Last year's report provided an overview of Tassal's first detailed supply chain focused 'cradle to grave' Life Cycle Assessment (LCA). The impact categories assessed were water use, cumulative energy demand (CED), global warming potential (GWP) and eutrophication (EUT). The marine farming phase was found to be the most significant contributor to all impact categories, particularly eutrophication of nutrient emissions which account for 99% of all impacts. Recommendations were that Tassal supports research and development around the reduction of the food conversion ratio which would subsequently significantly decrease effects on CED, GWP and EUT.

Energy use (especially diesel), water use at the marine stage of production and transport operations were highlighted as specific areas of future focus to reduce operational impacts. In the previous reporting year we committed to develop actions to address these inefficiencies particularly around reducing energy use, and the development of a Life Cycle Assessment Action Plan.

To meet these commitments, a company-wide LCA metrics database is needed, one that is easily used and reported. This underpins our plan to produce a full LCA of Tassal's supply chain every two years. The challenge for us is to devise ways of systematically and continually achieving and measuring reductions in these areas - a key target and foundation for the LCA Action Plan in 2014. The next LCA will also be undertaken in FY2014.

Waste

We are committed to achieving best practice in our waste management practices throughout each operational area. Waste is generated throughout various stages of the production process. We continuously undertake activities to reduce and where possible recycle each waste stream including nutrient recovery of fish waste products from our processing plant and plastics and cardboard throughout the business. We are also committed to responsibly managing historically accumulated waste from anti-fouled nets.

Nutrient Recovery

Our processing plant generates 82% of our waste. Waste products include the heads and frames of the fish, viscera (guts), trims, skins and fish mortalities. As this waste has valuable levels of protein and Omega-3 oils, it is recovered and recycled through other food production systems in the form of fishmeal and protein hydrosylate (liquid fish protein) that is used as both a feed for other aquaculture species and fertiliser for farmland.

Since the fish viscera has a higher Omega-3 content than the remainder of the fish carcass, significant volumes of this valuable oil are available for recovery.

Wastewater Impacts to Amenity

Seafish Tasmania provides re-use services for our organic waste. Seafish operates a rendering plant at Triabunna on Tasmania's South East Coast which has experienced significant challenges with odour, wastewater emissions and

regular community complaints in relation to these. The rendering plant is operating under Environment Protection Notice 8921_1 issued by the EPA. We understand that our responsibility does not end at our company door and during the reporting year, we continued to work with Seafish to resolve these issues. Tassal is also looking at economically viable and environmentally sustainable alternative options.

Recovery of nutrients from biomass sent to Seafish

	Weight (tonnes)		Protein (tonnes)		Omega-3 (tonnes)	
Biomass	FY2012	FY2013	FY2012	FY2013	FY2012	FY2013
Heads & Frames	2688	3381	323	406	27	34
Guts	2918	3311	642	728	298	338
Trims	699	881	140	176	7	9
Skins	90	403	18	81	1	4
Mortalities	2250	1405	421	263	113	70
Total nutrients recycled	**8645**	**9381**	**1544**	**1654**	**446**	**455**

Note: An increase in biomass in this reporting year reflects greater volumes of fish processed.

Contaminated waste management and site remediation

We have previously reported on our historic net cleaning waste. Tassal no longer uses copper treated nets, with our last copper treated net expected to be removed from the water in 2014.

Tassal has stored approximately 2,929 tonnes of this contaminated waste in two EPA approved land based facilities and at our net cleaning operation at Hawkers Point whilst we explore beneficial reuse options to avoid disposal to landfill. There is some hope that this material which, in the correct concentration, can be beneficial to soil through its micronutrients and trace elements, can be utilised by the agricultural sector or that the copper component can be recovered. Negotiations with companies capable of incorporating the waste into their product or that can recover the copper are presently underway.

The copper contamination of soil at our Hawkers land based site is the combination of a legacy issue when Tassal took over the operation, combined with the ongoing negative impact associated with the cleaning of copper anti-fouled treated nets. The downstream effects of copper anti-fouling is one of the reasons that Tassal has made the decision to discontinue their use.

The remediation of this site will take five years at a projected cost of $883,388. It is planned to remove and dispose of up to 1,000 tonnes of contaminated soil (subject to EPA approval) in 2013 – 2014 at a cost of around $200,000.

Plastics Disposal and Recycling

Plastics, particularly marine farm related plastics, are a major component of our waste stream. Marine farm plastics made of polypropylene and polyethylene include:

- Various pipe used for feed distribution and water supply on farms
- Bulk bags for feed supply
- Fish and bird nets, rope, and
- Fish farm cages.

Plastics that do not have a ready alternative application or are readily recyclable, such as fish pen stanchions and broken buoys, have historically ended up in landfill, while plastic pipe is a popular commodity and generally finds alternative uses.

In January 2013 Tassal and farm cage manufacturer Plastic Fabrications jointly undertook a pilot project to chip medium and high density polyethylene materials such as pen stanchions and plastic pipe for recycling, and also recover recyclable steel as part of a 'clean up' operation on the West Coast.

The project resulted in the Victorian recycling company Integrated Recycling purchasing 14.75 tonnes of recyclable chipped plastic from Tassal. While this was a labour intensive process, the financial cost after accounting for reusable pen components was about half that of landfill disposal.

A significant waste stream is bulk fish feed bags but unfortunately opportunities for recycling them are limited. Our aim is to cost effectively divert this entire waste stream to recycling. We have an opportunity to do this with a recyclables exporter based in Victoria with a recycling program expected to commence later in 2013 for our South East bags.

Polystyrene continues to be returned to our supplier for recycling. Much of the clear soft plastic used to transport the containers clean is recycled by a third party.

Waste Disposal and Recycling

	FY2011	FY2012	FY2013
Waste Stream	**Weight (tonnes)**		
Plastic and paper	*33.0	**31	52
Cardboard		156	171.6
Co-mingled	3.2	14.6	11.7
Fish Waste	7,486.4	***8,824	9,380.8
Total Waste Recycled	7,522.6	9,025.6	9,616.1
Total tankered liquid waste to external wastewater treatment*	not reported	not reported	1,657
Total waste sent to landfill (includes a proportion of fish mortalities and hard waste)	1,095.2	884.7	575.3
TOTAL WASTE	8,617.8	9,910.3	11,848.4

Notes:

- **In FY2011, the plastic and cardboard waste stream volumes reported were combined*
- *The comparative volumes of cardboard recycled between FY2011 and FY2012 reflects a significant increase in cardboard recycling in subsequent years*

  In our FY2011 and FY2012 reports, plastics and cardboard were reported as combined
- *The 2012 figure stated in last year's report referred to combined plastics and paper in error. Presented is the plastics figure (31t) and the much higher cardboard recycling figure for FY2012*
- *** Volume of paper recycled is not a significant waste stream. The FY2012 plastic data has been updated with the plastics only figure*
- ****In our FY2012 report, fish waste volumes recycled were incorrectly reported and has been corrected*
- *Increases in fish waste are due to increases in fish harvest biomass and processing by-product*
- *FY2013 is the first year that tankered liquid waste to external wastewater treatment has been reported as it has been identified as a significant waste stream*
- *All data for plastic, cardboard, co-mingled recycling, and liquid waste, is obtained from Tassal's service provider, Veolia or from 'in-house' records (i.e. farm plastics recycling project). At least 95% of data for and solid waste is obtained from Tassal's service provider, Veolia. Minor landfilled waste data, including landfilled mortalities, is approximated in isolated cases (isolated farms). Fish waste figures are based on fish waste receivables data provided to Tassal by the waste processor Seafish.*

Managing Water Quality

Water quality in the marine environment sustains ecological processes supporting marine fauna, flora and birdlife. Maintaining good water quality is a condition of our marine farming licences and the health and welfare of our Salmon depends on it. We continue to invest in research to improve our understanding and mitigate the impacts that Salmon aquaculture may have on water quality.

Benthic and water quality management

Benthic and water quality management continue to be a priority for Tassal. This is demonstrated by our excellent compliance record across our marine sites.

	FY2011	FY2012	FY2013
Number of ROV Dives	90	114	183
Number in Compliance	90	114	180
% Compliance	100	100	98.3

Note:

- *The increase in ROV dives between FY2012 and FY2013 is due to new site surveys in Macquarie Harbour.*

In FY2013, three compliance dive positions at the Gordon (MF219) farm site (Macquarie Harbour Region) were found to show signs of Dorvilleid Sp. which may indicate the presence of organic drift from the nearby stocked cages. In response, Tassal reported this situation to DPIPIWE. Tassal moved these active cages to more central locations within the lease and follow up surveys were conducted to confirm that this corrective action was effective. This lease will see a biomass reduction of approximately 30% next year as new lease sites in the harbour are stocked.

Broadscale Environmental Monitoring Program

Tassal participates in a Broadscale Environmental Monitoring Program (BEMP) that evaluates the nutrient inputs from Salmon farms in the D'Entrecasteaux Channel and Huon Estuary.

In the FY2013 reporting period a scientific review of the BEMP data from 2009-2012 was conducted by the Institute for Marine and Antarctic Studies (IMAS). The purpose of the review was to determine if nutrient emissions from the regions' Salmon farms are having adverse effects in the area.

This report represents a comprehensive summary of both the water and sediment quality data collected as part of the BEMP from 2009-2012. It also provides an evaluation of the data in the context of the major system drivers, previous environmental data sets and broader ecosystem performance measures. Collectively the information in the report has improved our understanding of the key processes and interactions and forms a comprehensive reference point for future assessment of the Huon and Channel system.

The report also provides an assessment of ecological functioning at the whole of ecosystem level.

Assessment of the monitoring data has shown that at current levels of industry production, which is capped, the ecosystem has the capacity to assimilate the inputs from Salmon farming activities as well as other human and natural sources.

A full copy of the Broadscale Environmental Program 2012 Report can be found at www.dpipwe.tas.gov.au

Expansion in Macquarie Harbour

As part of Tassal's expansion in Macquarie Harbour, a robust ecological monitoring program was developed and implemented through the multi-company Area Management Agreement. As a result of the program, a notification of the referral decision (a not controlled action if undertaken in a 'particular manner' Marine Farming Expansion, Macquarie Harbour, Tasmania (EPBC 2012/6406) was relayed to all three salmonid farming companies in Macquarie Harbour, including Tassal. The 'particular manner' translates to a set of measures that must be taken to avoid significant impacts on:

- World Heritage properties
- National Heritage places
- Listed threatened species and communities.

(see: http://www.environment.gov.au/epbc/notices/assessments/2012/6406/2012-6406-referral-decision.pdf)

In response to stakeholder concerns, additional bottom water quality monitoring stations were added to the fish farm environmental management program for Macquarie Harbour. The three companies through the Tasmanian Salmon Growers Association co-funded two projects:

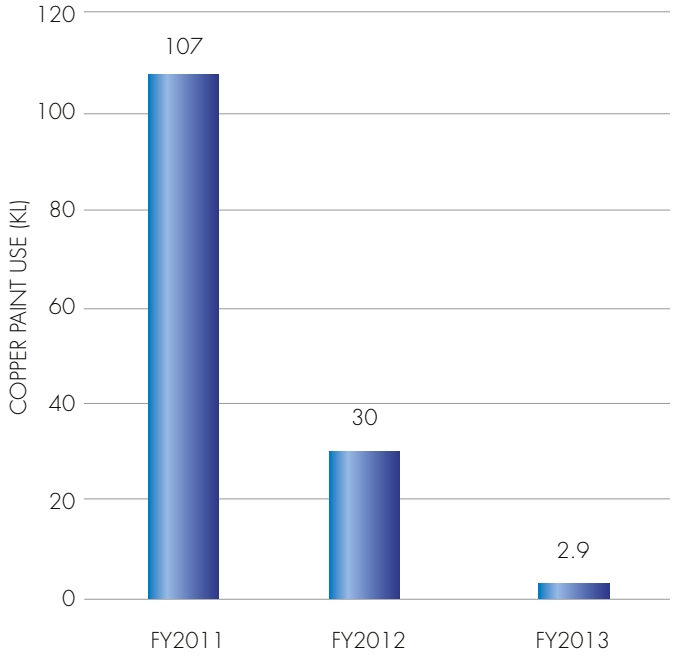
1. A three year research project to examine the movement and habitat utilisation of endangered Maugean skate in Macquarie Harbour with an evaluation of interactions with current and proposed marine farming sites

2. A three year research project to examine the characterisation of benthic pelagic interactions in Macquarie Harbour.

Net antifoulant use

Our target to cease using anti-foulants in our farming operations by the end of FY2014 is tracking well. We expect to pull out our last anti-fouled net out of the water early in 2014. As at 30th June 2013, only seven anti-fouled nets are left in the water, representing less than 4% of Tassal nets in the water.

Copper Paint Use



A critical component of achieving this target was Tassal's participation in and support of the Caring for our Country Project 'Improving water quality in cage finfish aquaculture: managing net biofouling'. The draft best practice guidelines developed as a result of this study has now been incorporated into Tassal's Integrated Management System.

Wastewater Treatment Compliance

In line with an increase in production, greater focus has been required to ensure that the performance and management of our wastewater treatment plants are in line with all regulatory requirements.

Processing Plants

Dover

Dover Wastewater Treatment Plant (WWTP) is an older facility that has exceeded its capability as a result of increased growth and production. Water quality was not meeting Environmental Protection Authority (EPA) requirements. As a consequence of this performance, Tassal submitted a design to the EPA for facility improvements.

Compliance parameters for wastewater are measured monthly and include Biological Oxygen Demand (BOD), Total Suspended Solids (TSS), oil and grease, ammonia and total phosphorus, total Kjeldahl nitrogen (TKN), coliforms, copper and zinc. In the reporting year, the site had 42% compliance across these parameters. Tassal has committed to resolving this issue through the design and development of the new Dover Wastewater Treatment Plant. A Development Proposal and Environmental Management Plan (DPEMP) was approved by EPA Tasmania. (see: http://epa.tas.gov.au/documents/tassal_dover_dpemp.pdf.)

Construction of the new Wastewater treatment plant commenced in late 2013 with commissioning of the plant due for April 2014.

Dover operates under a permit issued by the Huon Valley Council (DA 229/2010) containing EPA issued and regulated conditions for the operation and management of the site.

Margate

Margate WWTP achieved 78% compliance across similar water quality parameters specified in EPN 7098. EPA Tasmania has advised Tassal that a complete review and wastewater management plan will be required. Tassal is actively pursuing improvements to the WWTP for the Margate site.

Margate operates under Environmental Protection Notice (EPN) 7098/1 containing EPA issued and regulated conditions for the operation and management of the site.

Huonville

Huonville operates under a permit issued by the Huon Valley Council (DA 54/2009) containing EPA issued conditions associated with the operation and management of the site and is 100% compliant.

Freshwater Use

Freshwater is a valuable natural asset which we have a responsibility to use as efficiently as possible. Access to clean freshwater is critical to the food safety of our product and the health and wellbeing of our fish in our hatcheries and marine farms. As our production of Salmon increases along with climate variability, we need to be smart about how we utilise Tasmania's freshwater assets.

Tassal is developing a freshwater framework to standardise information regarding water use across the business and to better understand the potential ecological impact of extracting this water from our waterways. The freshwater framework will evaluate and describe the use of reticulated water used in our Russell Falls hatchery and processing facilities and bore water used in our Rookwood Rd Hatchery. Additionally, it will describe the use of freshwater for bathing in our south east marine sites, including points of removal, river, stream dam and catchment as well as volume used, distance from marine waterway and proximity to known conservation values.

Freshwater used in Processing

All three of our processing facilities use reticulated water. This water is used for the washing of equipment and is treated onsite prior to disposal.

Freshwater used in our Hatcheries

All water used at the Rookwood Rd Hatchery is extracted from the Mountain River aquifer, with all wastewater utilised for beneficial reuse as irrigation water on two properties approximately two kilometres from the hatchery. The removal of water from an aquifer (bore water) can have potential negative impacts on downstream communities, however, given the high rainfall volumes experienced in the Huon Valley and the comparatively low levels of water extracted by Tassal annually compared to approximately 19,000 ML input (CSIRO Huon Estuary Study, 2000), there is a low chance of any negative impacts on the Mountain River aquifer.

Quarterly water quality monitoring is carried out at Russell Falls by Tassal at three sites:

1. upstream
2. downstream, and
3. discharge from the hatchery.

This monitoring is conducted in accordance with the EPN issued by the Derwent Valley Council.

Together with this ongoing compliance monitoring, Tassal recently had a macro invertebrate survey conducted in the Tyenna River adjacent to the Russell Falls hatchery. The results of this were positive, indicating that hatchery operations at this site do not have a detrimental effect on invertebrate communities within the Tyenna River.

Freshwater used in our Marine Operations

Tassal's South East marine farms extract water from a variety of locations close to the coast which is used to combat amoebic gill disease (AGD). In all cases, the water is sourced low in the catchment and is unaltered during bathing. Fish are bathed every six to 12 weeks depending on the season and no chemicals are added to the bathing water. Tassal's selective breeding program is delivering a successful increase in AGD resistance in our stocks which is resulting in a decreasing need to bathe our fish, thereby decreasing the use of water for this purpose.

Tassal extracts freshwater from the Kermandie River, Esperance River and numerous dams close to our farms. All points of extraction are within a few kilometres of the coast and most are within a few hundred metres of the coast. The freshwater is either towed from the extraction point or delivered by underwater freshwater pipeline to the farm.

We are mindful of the potential impacts freshwater extraction may have on ecological processes in the Kermandie and Esperance Rivers and commit to working with local NRM organisations to further assess this.

Freshwater Extraction

	Operational Node	Freshwater Classification	Point of removal	Volume (ML)
Marine Farming Region	Tasman	Dam	Dam	214
	North West Bay	Dam	Dam	156
	Bruny	Dam	Dam	308
	Huon	River/Dam	Esperance River	668
	Dover	River/Dam	Kermandie River	382
Hatcheries	Russell Falls Hatchery (Incl. Karanja facility)	Flow through	Tyenna River	46150.4 Flow through Hatchery – all water returned to the river
	Rookwood Rd Hatchery	Bore Water	Mountain River Aquifer	91.2
Processing	Margate Processing	Reticulated	Local municipal water reservoir	29.2
	Huonville Processing	Reticulated	Local municipal water reservoir	50.7
	Dover Processing	Reticulated	Esperance River	41.3

Note: The brackish nature of the water in Macquarie Harbour means that this farming region is not impacted by AGD, and therefore, there is no necessity to bathe salmon in freshwater

Energy and Fuel Use

We are committed to reducing energy use throughout our hatcheries, processing and marine operations. The reduction of energy and fuel use has been identified as an area of focus in our LCA Action Plan, due for release in FY2014. A snapshot of fuel use at Tassal's major operations shows some improvement in diesel and petrol consumption - particularly the use of diesel in Marine Operations which has decreased by 14% compared with the last reporting year. Savings in towing freshwater and also vessel movement efficiencies at farm level are responsible for this reduction. Savings in energy at our processing facilities have occurred as a result of alterations in some shifts. Electricity use at our hatcheries has increased by 2.7% due to smolt lighting requirements.

Initiatives to reduce power such as a power conversion kit, and the installation of solar hot water cylinders at the Margate processing plant have contributed to a reduction in power usage at the Margate processing facility.

Energy Use

	FY2012				FY2013			
	Diesel Total kL	Petrol kL	Electricity MWh	LPG kL	Diesel Total kL	Petrol kL	Electricity MWh	LPG kL
MOPS	2,224	677	2,224	1	1,912	721	2,355	1
Processing	3	0	11,811	29	4	0	11,722	35
Hatcheries	4	0	8,699	3	6	0	8,938	4
Total	2,231	677	22,734	33	1,922	721	23,015	40

Fleet Vehicle Fuel Use

	FY2012	FY2013
	Total Fuel kL (Diesel, Petrol, LPG, Ethanol)	Total Fuel kL (Diesel, Petrol, LPG, Ethanol)
Tassal Fleet	310	369

Note: Fleet numbers have remained constant over the past two reporting years.

Salmon escapes from our farms

To reduce the potential impacts of escapes on the marine environment Tassal has a structured escape prevention and response system which is underpinned by a robust stock control system. The accuracy of the counting technology or counting method used for calculating stocking and harvest numbers is greater than 98%. The rollout of Kikko nets is further reducing the likelihood of escapes.

Tassal had one escape incident in the FY2013 reporting period. The escape occurred in Macquarie Harbour at our Middle Harbour lease on March 25th, 2013. 6,458 fish escaped at an average weight of four kilograms, due to a seal creating a hole at depth in one of the pens. The escape response protocol was initiated immediately upon discovery of the hole and authorities were notified.

Due to the absence of native salmonid stocks in Tasmania (Atlantic salmon originating from Canada were introduced to Tasmania for farming in 1960), ecological interactions between wild and farmed Salmon and genetic impacts remain a non-material issue (Tassal does not rear transgenic stocks).

In Tasmania, the potential impacts of escaped Salmon are:

- Establishment of feral breeding populations
- Negative ecological impacts on native fish populations and prey species, and
- Disease transfer from farmed fish to native fish.

Research to date in Macquarie Harbour suggests that escaped Salmon struggle to survive outside of the farm environment. The absence of native Atlantic Salmon in Tasmania coupled with the low incidence of pathogens means that the risk of transference of disease to native species is low. In addition, our Salmon do not have sea lice and so we do not use anti-parasitics or chemicals on our farms. This further reduces potential negative ecological impacts on larval and juvenile stages of local native marine species. Australia and Tasmania specifically have very comprehensive and strict biosecurity legislation, regulation and monitoring. Tassal has commissioned an evaluation of practices on Salmon farms to mitigate escapes and ecological impacts.

Best Aquaculture Practice Certification

In the reporting year Tassal has achieved certification at all six of our marine farming regions to the Best Aquaculture Practices (BAP) Salmon Farm standard and Seafood Processing standard.

Best Aquaculture Practices is a credible, voluntary, third-party certification program for aquaculture facilities. The Salmon Farm standard covers environmental and social responsibility, food safety, animal welfare and traceability at the marine operations level, while the Seafood Processing standard focuses on quality, food safety, verification and traceability as well as responsible environment and waste management at the processing facility.

Aquaculture Stewardship Council Certification Pre-Assessment

During the reporting year, we began pre-assessment for Aquaculture Stewardship Council (ASC) certification at our Middle Harbour and Gordon leases in Macquarie Harbour. The ASC standard covers legal requirements and legislation, conservation of natural habitat, local biodiversity and ecosystem function, the protection of the health and genetic integrity of wild populations, responsible use of resources, disease management, social responsibility, and community and stakeholder engagement.

It is Tassal's intention to certify all six marine farming regions in 2014.

Health and Welfare of our Salmon

The health and welfare of our fish remains a top priority for Tassal. An important piece of work completed in FY2013 has been region specific fish health management plans. The plans include a listing of all potential diseases, fish health and biosecurity measures, fish health monitoring, harvest protocols and training requirements. Built throughout this plan and marine operations standard operating procedures are specific welfare guidelines and metrics. These have been implemented across all regions.

During the reporting period, Tassal advertised to further strengthen its fish health team with the appointment of a new Fish Health Field Officer. This position will provide on farm support to the Fish Health Team in the roll out of Tassal's Fish Health Management Strategies which has now been implemented across all operational regions. A second fish health lab position due for recruitment in 2014 will be based in Tassal's new fish health laboratory due for completion in 2014. This will bring the fish health team to a full complement of four. Technical officers across marine sites and hatcheries further support the work of the fish health team.

Isolated algal events caused stress and minor mortality in the Huon Region. There have been sporadic detections made of an Orthomyxo – like virus in association with variable mortality of smolt in our South East regions. Further characterisation, including sequencing is being undertaken. Infectious Salmon anaemia virus has been ruled out through OIE (The World Organisation for Animal Health) recommended assays. Investigations are ongoing to characterise the virus, better understand its epidemiology, and to determine its significance as a pathogen for our Salmon. This virus was first detected in 2006 and is already known to Industry and relevant regulators. 100% of our smolt groups are tested for known diseases before release into the marine environment. Tassal participates in a statewide Fish Health Surveillance Program.

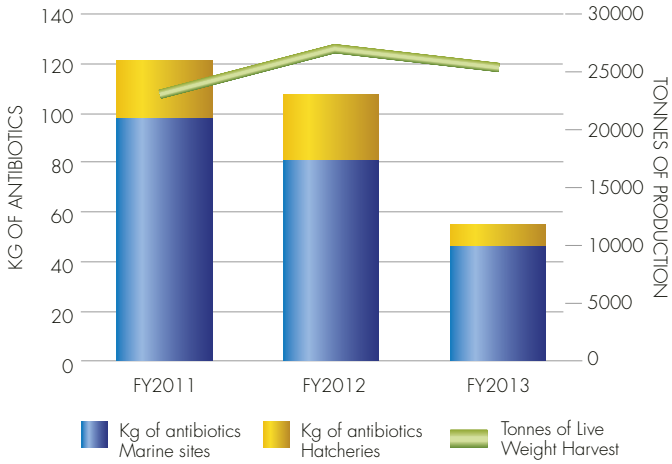
Tassal has also invested significantly in the Industry's Selective Breeding Program (SBP) which was developed as a research program in collaboration with CSIRO scientists. This program became a full commercial program with a strong ongoing research program in further collaboration with CSIRO. The SBP is yielding positive improvements in growth, survival and resistance to AGD. The SBP supports our fish health and welfare strategies.

Antibiotic Use in Fish

Antibiotic use is now sporadic and limited to isolated fish health issues. We never treat our fish with antibiotics unless they are sick. Our expectation is that our antibiotic use will now fluctuate around this very low level. As always our goal is to use no antibiotics and we will continue to invest in excellent fish husbandry and preventative health management.

Since the last reporting year, antibiotic use has been reduced in our hatcheries by 71.4% and by 43% in our marine sites – a 55.5% reduction overall.

Total Antibiotic Use



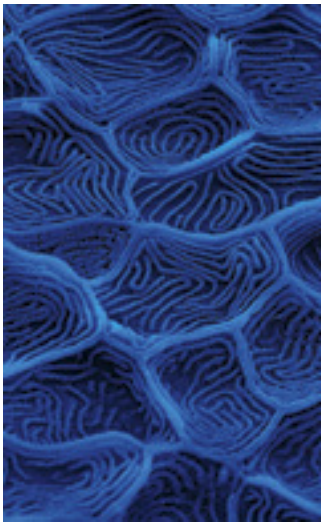
Year	Grams antibiotic used per tonne of fish produced		
	Marine Sites	Hatcheries	Total
FY2011	4.02	0.91	4.93
FY2012	2.94	1.19	4.13
FY2013	1.80	0.37	2.17

Salmon Feed

The food that we feed our fish is designed for fish health optimization. Our Salmon feed is made up of fish meal and fish oil and varying levels of land animal ingredients which may include (chicken meal and oil, and porcine and bovine blood meal) and vegetable ingredients (grain and protein meal). Tasmania has had a moratorium on the commercial release of GMO's since 2001.

As feed is one of our primary inputs into the production process, we have worked with our major feed supplier to reduce our forage fish meal input and increase protein form other sources. This strategy is important not to only reduce our reliance on, but also to reduce pressure on global forage fish resources.

The application of functional feeds from our major feed supplier Skretting has been a major focus in the reporting year. The aim of functional feeds is that they are designed to be specific in their application.



Scanning electron micrograph of fish skin surface Courtesy of Skretting Aquaculture Research Centre

Scanning electron micrograph of fish gills Courtesy of Skretting Aquaculture Research Centre

protec™ SKRETTING

Tassal is applying a host of these feeds across the Salmon production cycle. For example, hatchery feeds have physical properties that are designed to improve water quality. Similarly, transfer feeds help to reduce stress during the transfer of juvenile Salmon from our freshwater land-based hatcheries to the seawater grow-out sites. Seasonal diets help to support the fish during periods of high water temperatures.

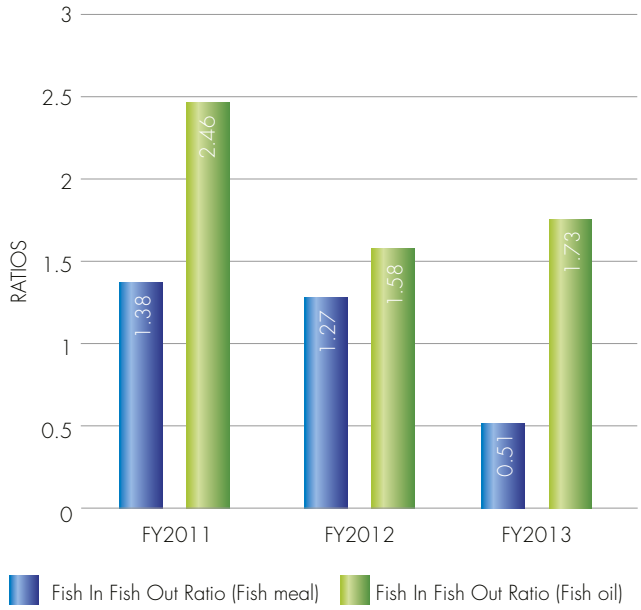
Protec™ is a specific functional feed developed by Skretting that is focused on three basic elements: Shield, Support and Balance. The feed is designed to help our fish cope with disease, environmental insults and subsequent recovery from these stressors.

Protec™ is widely used around the world for salmonids and other species helping to shield the skin, gut and gills. The feed supports the immune system, provides building blocks for new cells and optimizes the balance between fish, microbes and the environment.

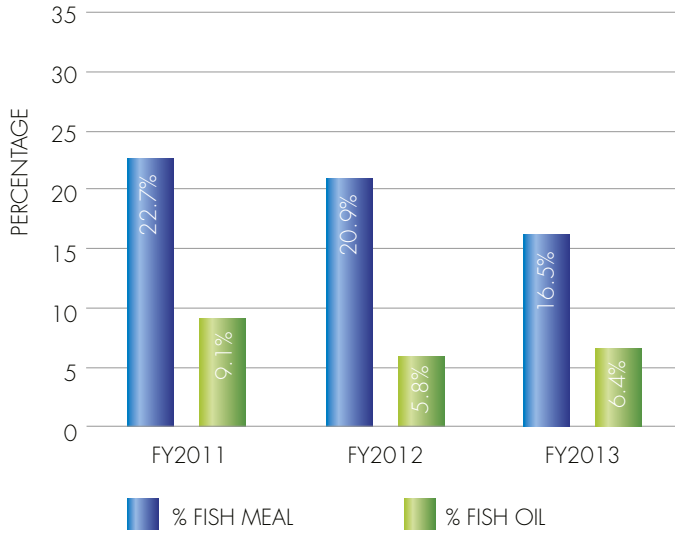
The major health challenge for the Tasmanian salmon industry is amoebic gill disease (AGD), a disease that results in mortality if not managed through costly freshwater bathing. In a commercial scale trial, led by Tassal's Fish Health Manager, Carlos Zarza, the effects of Protec™ on the salmon's response to AGD were tested. Results demonstrated that salmon fed with the feed had a greater potential to deal with respiratory insults which are a consequence of AGD infection.

This is one example of how the Fish Health team at Tassal is actively working with its feed supplier to identify new solutions through the use of functional feeds which benefit the welfare, productivity and sustainability of Tassal's Salmon.

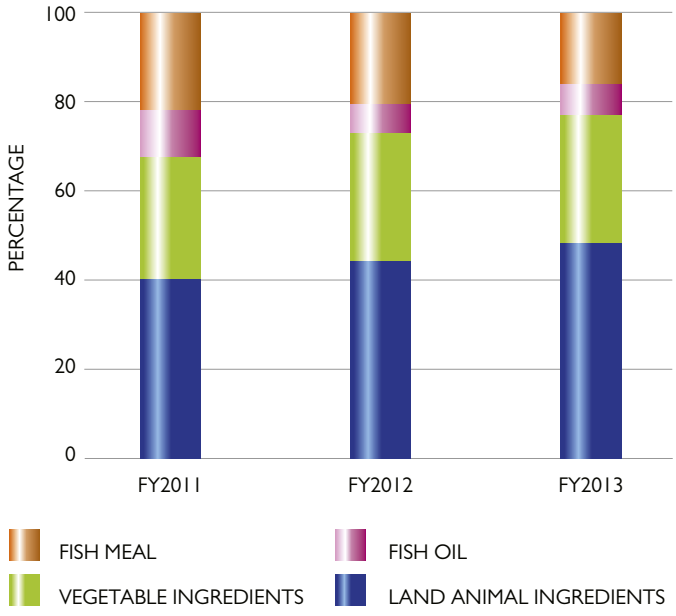
Fish In : Fish Out Ratio



Fish meal and fish oil levels in feed



Raw Materials in Tassal Salmon Feed



Wildlife Management

Protecting our unique Tasmanian wildlife is integral to how we manage our business.

Seal and bird interactions occur at our Salmon farms, and in fact seal numbers are increasing in the areas in which we farm. Our wildlife interactions require responsible management to ensure that minimum harm occurs to both wildlife and our Salmon.

We employed an additional wildlife management officer during the reporting year to assist the senior wildlife management officer and team of casual staff to support responsible management of wildlife interactions at our farms.

We want to understand how to better share the environment we occupy with seals and also to ensure that our practices are not unduly impacting seal populations around Tasmania. To help us with this, in FY2013, we commissioned two reports.

The first report details the status and trends of Australian and New Zealand fur seals (in Australia and New Zealand) which found that the rates of population increase in both species is similar to other species of fur seals also recovering from past commercial exploitation.

The second report is a risk assessment of fur seal interactions with aquaculture in Tasmania. This report concludes that the current level of seal mortality from the activities of the Tasmanian Salmon aquaculture industry is not adversely affecting the population trajectory of either species. The risk assessment provides a series of recommendations and where possible, these have been adopted.

We are currently working with the Seal Management Forum to achieve consistent data collection across the various Tasmanian Salmon companies.

Seal Interactions

All of Tassal's South East marine farming regions have again experienced an increase in seal numbers which is particularly evident at the Nubeena farms.

The Tasman region has experienced a marked increase in seal numbers during the reporting year. Re-established breeding colonies on Tasman Island and Cape Hauy mean that a proportion of seals are not travelling to Bass Strait for the breeding season. This, coupled with a successful breeding season, has resulted in an increased number of sub-adult seals frequenting the Nubeena leases.

Our 2011 agreement with WWF-Australia to cease euthanasia of seals has been put to the test on a number of occasions and in FY2013 it became necessary to euthanise one seal. This was a very difficult decision to take, and one undertaken in close consultation with WWF-Australia and the Wildlife Management Branch of DPIPWE.

The behaviour of this particular seal was such that experienced wildlife management staff saw no other option than to euthanise the seal as it posed a high risk to human health and safety. Failure to act would have constituted a breach of Tassal's duty of care to staff.

Tassal remains committed to the use of passive seal deterrents in accordance with our 'no harm' policy towards seals. Tassal does not use acoustic harassment devices.

Should a seal gain entry to a pen, the first step taken is to lower the sides of the pen to the surface of the water to allow the seal to simply swim out. Some seals however are inexperienced or reluctant to leave the nets once they enter. When this occurs it becomes necessary to sedate the seal in order to facilitate their safe (for the seal and staff) removal from the pen. Young seals in particular are inexperienced at exiting the nets and this has led to a higher than usual number of relocation events.

Regrettably, two seal deaths occurred whilst the individuals were under sedation. The sedative used by Tassal is called midazolam. The individual response of a seal to sedation varies, with some becoming more deeply sedated than others. Seals are closely monitored for at least two hours after sedation. On occasions where a seal has become deeply sedated, the seal may regurgitate their stomach contents. This may result in inhalation of the vomitus causing asphyxiation.

To counter the possible consequences of deep sedation, we have been investigating the use of the midazolam reversing agent known as flumazenil. To date, we have used flumazenil on three deeply sedated seals and it has proved to be successful in reversing the effects of midazolam. The use of flumazenil is on a case by case basis at the discretion of the supervising veterinarian.

Of the 144 relocation events reported across all farming regions, 95 of these were relocated from the Nubeena farm. 28 sedations were required at this location from a total of 37 sedations across all of Tassal's southeast operations.

Seal Interactions

	FY2011	FY2012	FY2013
Relocation events	183	29	144
Euthanised	8	3	1
Accidental death (relocation)	3	1	4
Accidental death (entanglement)	1	5	7

Kikko Net Roll-out

Last year we reported the successful trial of two Kikko nets. The aim of deploying the nets is to protect both wildlife and our Salmon by making it very difficult for seals and diving birds to enter our Salmon pens.

Kikko nets are integral to the management of wildlife interactions for both seals and diving birds. Because they are so effective in excluding this wildlife, our fish are no longer experiencing the stress associated with this predation and we are seeing benefits associated with improved fish health and welfare.

The net consists of a semi-rigid net system made from polyester monofilament. The highly successful trials have resulted in Tassal making the significant decision to invest $10 million in this technology with the roll out of the Kikko net across all marine operations.

At the end of FY2013, 19 Kikko nets have been rolled out in our Dover and Huon farms (38 in total). A further 85 Kikko nets will be installed at our Huon, Dover and Tasman regions in FY2014.

Bird Interactions

The vast majority of our bird interactions are with silver gulls and self-introduced New Zealand kelp gulls, although during the reporting year we did experience unusually high numbers of Black Cormorants at our Russell Falls (Karanja) and Macquarie Harbour sites. In all Tassal marine operational regions, accidental death due to entanglement in bird netting has reduced. This is evidence that our 'Tassal Code of Best Practice: Waterbirds and Birds of Prey' protocols are working, although, as always there is room for improvement. Tassal's Macquarie Harbour farms have old bird nets which have been upgraded and we expect to see a reduction in entrapment in the next reporting year. The Tasman Peninsula bird nets are older and increased seal numbers has resulted in more stress and holes in bird nets, increasing the opportunity for birds to enter.

All seabird species are protected in Australia under the EPBC Act. There were no deaths of any threatened or endangered seabird species in the reporting year.

Training and support of our staff continues to contribute to decreased numbers of interactions between birds and our farms. In November 2012, Tasmania's Bonorong Wildlife Sanctuary hosted a Sea Bird rescue and Rehabilitation training course. The course was presented by world renowned seabird rescuer Elizabeth Hall who manages the Taronga Zoo Veterinary clinic and travels world-wide for sea bird rescues at major oil spills, providing a wealth of information, expertise and experience. Three Tassal

staff members were able to attend this course providing a valuable and hands on opportunity to learn how to safely capture, handle and provide initial care and treatment to a wide range of seabirds. The outcome of the course was that Tassal will develop a seabird rescue strategy, providing adequate resources to capture, provide initial care and transport birds to Bonorong animal sanctuary where a Sea Bird Rehabilitation Centre is being built. Tassal will support this great initiative by providing some surplus equipment for its construction.

In June 2013, Tassal staff participated in the BirdLife Tasmania winter gull count in South East Tasmania. This is an annual gull count which has been conducted for approximately 30 years and shows long term trends in gull populations in South East Tasmania.

Bird Interactions

	FY2012 (3 months)		FY2013 (12 months)	
Region	Accidental death	Alive and released	Accidental death	Alive and released
North West Bay	4	92	3	96
Bruny	4	139	7	65
Great Taylors Bay/Huon	4	58	2	237
Dover	17	168	2	53
Tasman Peninsula	1	16	0	183
Macquarie Harbour	2	48	1	268
Total	32	521	15	902

Note:

- *FY 2012 Bird data pertains to 1st April 2012 to 30th June 2012 only as this was when Tassal started collecting bird interaction data*
- *All birds in the table above were either common silver gulls or New Zealand Kelp Gulls except for six cormorants (one Great Cormorant dead and five released alive) and one sea eagle, released alive.*
- **Denotes Great Cormorant.*

New bird netting at Karanja hatchery facility

Cormorants

In the reporting year, Tassal's Macquarie Harbour Farms and Russell Falls Hatchery came under unusually high predation pressure from Great Cormorants (Phalacrocorax carbo). The Inland Fisheries Service also reported a very high predation pressure on freshwater fish species by these birds through migration to Tasmania.

The black cormorants impacted two of our operations. At the Russell Falls hatchery, the cormorants killed broodstock and smolt housed in outside tanks and in Macquarie Harbour, cormorants predated heavily on newly introduced smolt. At our Russell Falls hatchery, 111 black cormorants were culled and at Macquarie Harbour, 387 cormorants were culled. As these birds are viewed as a pest species, no licence was required for the cull, however, we informed DPIPWE. We recognise that this kind of interaction is unacceptable from a stock loss perspective and also from a bird welfare perspective. Historically, we have not faced this level of predation from birds before and we did not have mitigation measures in place. Innovation is required to avoid this situation in future years.

The company will take a step by step approach to this, which has already begun with accountability through transparent communications and new record keeping processes. A staff member from the Russell Falls Hatchery that entered Tassal's Dragons Den internal innovation program suggested that a solution to stock loss through bird predation may be to construct bird netting to protect the exposed tanks. A business case was put forward to receive the funds, and the project was completed in February 2013. The netting has proved successful, with no cormorants entering since installation.

Dolphins

No dolphin deaths or interactions occurred at any Tassal farm in the reporting year. In future we will report dolphin interactions if they occur, however, we will not report a 'null event'.

During the reporting year, there were no incidents of non-compliance with laws and regulations and voluntary standards related to the transport, handling and slaughter practices for live terrestrial and aquatic animals.

Spotlight on our Processing Facilities

Tassal owns and operates three separate processing facilities. They are all located in Tasmania, south of the capital, Hobart. Tassal's Dover, Margate and Huonville processing facilities provide flexible working opportunities in small rural/semi-rural communities. Each facility plays a different role in the post-harvest, value added production of quality Tassal products.

Before our fish are processed, they of course go through the harvest operation.

Harvest operation

The ultimate eating quality of any fish is critically dependent on how that fish is treated during the harvest process. Decreasing the stress on our fish is not only closely aligned with our fish welfare standards but it makes good sense when it comes to the end quality of our product. For these reasons, Tassal has invested in a state of the art UK- RSPCA Atlantic Salmon Standard recommended humane harvesting system.

The harvest operation begins when our harvest vessel (Tassal 1) pulls up alongside the cage to be harvested and the harvest crew pull the net in close to the vessel so that the fish can be pumped aboard. At this stage, the operation is identical to the freshwater baths that the fish experience approximately six times during their lives.

The fish are pumped into a darkened tank with flowing water and swim head first into the flow (simulating a current) where they deliver themselves into a self-activated pneumatic stun and bleed system. The fish are in water right up until the point of stunning which consists of a blow to the head rendering the fish unconscious. After this, bleeding is automatic and instantaneous. Fish are monitored immediately after the stun and bleed and a backup stun/bleed system is available if required for individual fish.

The fish then fall down a chute and into the hold of the vessel into an ice water slurry, where they are chilled. Chilling profiles for the fish vary dependent on different water temperature, fish conditioning and seasonal variations. This means that our fish are heading to our processing facilities in the very best condition possible.

Bloodwater from the harvest boat in South east is sent to the Dover Processing Wastewater Treatment Facility and from Macquarie Harbour to an approved wastewater treatment facility.

Dover

Dover is Tassal's primary processing facility, receiving whole fish straight from the harvest vessel. Fish are gutted here and then either sent as Head on Gutted (HOG) fish to retail and wholesale customers around the country or sent to one of our other processing facilities for further 'value added' processing. Dover has been operating since 1986 and was the original Tassal processing facility. Significant funds have been invested in this site over the last five years to ensure that it meets the highest standard of compliance and technology. Dover is the first processing plant in Australia to receive BAP accreditation.

HATCHERIES

Fresh Water

RUSSELL FALLS
Hold broodstock and produce eggs

SALTAS
Hold broodstock and produce eggs (Industry Selective Breeding Program)

ROOKWOOD ROAD
receive eggs, do not hold broodstock

Smolt

Smolt

SMOLT

Smolt can go from any hatchery to any farm

FARMING REGIONS

Salt Water

MACQUARIE HARBOUR

TASMAN PENINSULA

NORTH WEST BAY

BRUNY

HUON

DOVER

Harvest fish by boat

Transport fish by truck

Harvest fish by boat deliver direct for processing

PROCESSING

Primary Processing
MACQUARIE HARBOUR
Multiple Locations
Fish are gutted and graded

Primary Processing
South East
DOVER
Fish are gutted and graded

HUONVILLE
Processing
Cold Smoking

MARGATE
Processing
Value Adding

MARKET
Local and Mainland

Dover receives fish from our South East farming regions and all fish arrive on the harvest vessel to the wharf next to the factory. The factory receives between 5,000 to 25,000 fish per processing day dependent on production orders. The harvest vessel delivers fish early each morning after having harvested the previous day. Fish are pumped from the harvest vessel directly into insulated bins and are iced ready to be processed on the same day.

When the factory is ready to process a particular bin of fish, they are tipped onto a conveyor where they are transported to the fully automated gutting machine. Each fish is then graded according to quality and size and packed either into polystyrene boxes or bulk collapsible bins for transport direct to retailers and wholesalers. Fish are also transported to our value added processing facilities in Margate and Huonville via insulated bulk bins.

The factory has the capacity to process 2,000 fish per production hour and the average time for a fish to travel through this factory is three minutes.

Tassal's Dover factory employs 72 people and unlike the other factories, the majority of employees based at Dover are employed on a temporary seasonal basis (41). 26 full time staff in addition to a few casual and part time staff make up the remainder.

Tassal has recently spent $3.6m to upgrade the Dover fish processing factory's wastewater treatment plant. This upgrade ensures that the factory is compliant with all water quality discharge requirements in the long term as production expands to up to 25,000 tonnes per annum. The upgraded facility includes construction of a new balance tank, including improved screening, mixing and pre-aeration and construction of a new aeration, settlement, sludge removal, clarification and disinfection Sequencing Batch Reactor treatment process.

Margate

Tassal's Margate processing facility is 25 years old and has seen a number of incarnations over that period. The site was purchased by Tassal in 2005 in order to process Atlantic Salmon products. During the reporting year, Margate processing employed 65 full time, one part time and 49 casual staff. Margate produces around 27% of Tassal's total production as value added products.

Tassal's Margate processing facility consists of two separate processing factories on site as well as a state of the art product Innovation Centre.

All salmon arriving at Margate Processing is delivered from Dover or Macquarie Harbour as HOG Salmon. Margate processing produces a range of value added Atlantic Salmon products for sale under the Tassal logo. These

include Tassal's range of quick and healthy easy bake plain and flavoured products, hot smoked plain and flavoured Salmon, vacuum packed fresh fillets and packed fresh portions.

The fish are transported from Dover to Margate by truck in large bins and on arrival, immediately chilled for up to three days in order for the fish to pass through rigor mortis to render them suitable for value added processing. Each bin holding 400kg of HOG Salmon is tipped onto a conveyor belt and sent to the de-heading machine and then also filleted by machine. Depending on the end product desired, the fillets may be manually trimmed and then the small 'pin bones' present in all Atlantic Salmon are removed by machine also. The fillets then travel through the portioning machine and are then packaged into 'Modified Atmosphere Packaging (MAP) cartons, iced and boxed into cartons and then sealed ready for transport. Before portioning, the fillet may be directly vacuum packed as a whole fresh fillet product. This factory currently processes between 20-25 bins per hour.

From the tipping of the HOG product from the large bin, it takes between 2-3 minutes for the Salmon product to be sealed into a carton and returned to a separate chiller where it is held at between 0-2°C and ready for transport to market. The majority of our freight is transported daily by road, with a small portion travelling by air fright to the Northern Territory and far north Queensland.

The bottom factory is where all of our Easy Bake and selected private label frozen products are produced. This is a manual operation utilising 14 staff members to manually fillet, trim and further process the Salmon into 130g portions vacuumed packed and packed into inner cartons ready for the market.

In the Smokehouse, fresh portions (from the main value added processing area) are salted and racked on smoking racks and placed in the chiller for between eight and 36 hours to cure. Once cured the racks are placed into the smoke ovens and undergo a cook for six hours. This gives the final product a golden texture and the flavour of the woodchip smoke. After smoking, the product sits in the chiller to cool down for packaging. Portions are graded out and only the best produce is packed through the tray and shipped out to the local markets.

The automation of the Margate processing facilities over the last 4 to 5 years has seen the introduction of specialised equipment with the goals of speeding up production, gaining better management control of the products, decreasing the number of handling steps in the production process as well as increasing the yield. During this mechanisation process, no permanent positions have been lost, rather the staff, whilst still taking pride in the product, now also take a great deal of pride in the machinery used.

Innovation Centre (Margate)

In December 2008 Tassal opened its Innovation Centre in Margate, Tasmania. The state of the art facility is specifically designed to aid in the development of new and innovative seafood products tailored to meet our consumer's requirements.

Since opening, hundreds of products have been developed and tested in the Innovation Centre. These products range from the country's only truly Australian made and packed canned Salmon range to bespoke custom developed and produced smoked Salmon for our private label customers.

The centre includes a full commercial kitchen, office space, a meeting space and a complete pilot factory for large scale trials.

Huonville

Tassal's Huonville processing plant has been in operation for 15 years. The plant employs 192 people, two thirds are employed on a full time basis, and the remaining either part time, seasonal or casual employees.

As with Margate, Huonville receive HOG Salmon from Dover processing. Fish is held in a chiller until they pass through rigor mortis (2–3 days) and then filleting occurs on an automated filleting line in preparation for being cold smoked. Up until the fillets are placed on racks to cure with salt, they are not touched. We produce a salt reduced cold smoked Salmon which is injected with a low salt brine solution rather than allowing the flesh to naturally take up the salt. Cured overnight in a chiller, the fish is then placed in an air tight room (the smokehouse), where it is cold smoked for between six and 12 hours.

The cold smoking process does not cook the fish with heat, rather flavours the flesh with the rich aroma of the wood chips used in the smoking process. All wood chips used in the smoking process are sourced from sustainably managed Beechwood forests.

In addition to cold smoked products, Huonville processing plant also produces a small quantity of other branded products for our major retail customers.

The Huonville processing plant has the capacity to produce 13 tonnes of finished product per day or 25 tonnes of HOG per day.

Food Safety and Quality

Food safety is of paramount importance across our entire business. We continuously monitor our production process and pro-actively manage risk through a HACCP framework and through Tassal's Integrated Management System (TIMS). TIMS is an integral part of ensuring this is achieved across elements such as food safety and quality expectations in a reliable, productive, safe and environmentally sensitive manner. Our Zero Harm approach sits broader than the traditional safety arena and includes food safety.

Our system is the audited consolidated platform for key aspects of quality, environment and health and safety management ensuring a consistent approach to all of our work processes. Our systems and processes are designed to increase effectiveness through consistency and communication of required standards and practices.

Procedures include testing of finished goods, corrective actions, traceability, rapid alerts and policies for the recall of products. Each of our factories works closely with the sales and marketing team to understand delivery expectation and demands on each factory required to meet the demand for our product.

Mock traceability from point of harvest to customer (and vice versa) is managed through the 'WiseFish' information system. Lot codes are created in WiseFish and allocated at key points in the process from harvest through to wet processing and value adding. The format of the lot code reflects the date of production but also has a pre-fix which identifies the origin of the lot, including the processing site and the process type. The "harvest lot" allocated in WiseFish, links into the FishTalk information system which provides traceability from receipt of eggs at the hatchery through to harvest (and vice versa). Traceability and recall exercises are conducted regularly to verify that the system is working as intended and to identify any opportunities for improvement.

A complete list of our quality auditing and certifications can be found at www.tassal.com.au/about-us/food-quality

Managing our Sustainable Supply Chain

All suppliers of goods and services to Tassal undergo assessment before being deemed an approved supplier. These assessments are designed to enable us to make decisions on business partners based on their consistency of approach to items such as quality and food safety, environment and sustainability, WHS, ethical sourcing, social responsibility and labour practice policies.

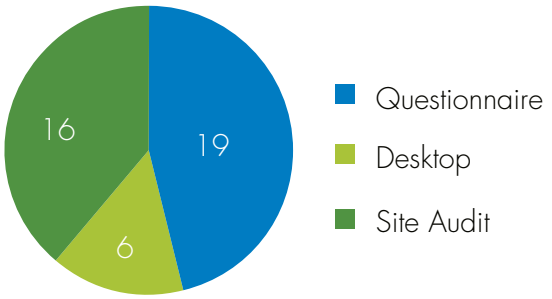
Assessments are undertaken prior to committing to partnerships in aspects such as suppliers of raw materials, ingredients, packaging and warehousing as well as contract manufacturers and providers of services such as pest control, cleaning chemicals, transport, testing, calibration and waste removal.

Our largest input is fish feed, 100% of which is supplied by feed producer Skretting. Skretting recommends that suppliers of their marine products are accredited by IFFO RS or MSC accreditation of their utilised fisheries.

As a minimum, suppliers who provide goods or services that may impact on product safety or quality are required to complete a questionnaire which covers topics such as external certifications, policies and key quality programs. In addition, suppliers may be asked to complete a more comprehensive self–assessment, or, an on-site audit may be conducted by trained Tassal staff. The decision to conduct a site audit is based on the risk of the material or service to be provided. Risk assessments and supplier performance are reviewed at least annually.

The graph below is a current summary of each assessment category. One of the key drivers for variation on the proportions based on the previous reporting cycle is our standard auditing program – i.e. not all suppliers require an annual site audit. As a result the number of site audits conducted in this cycle has decreased when compared to the previous reporting period.

Assessments of Approved Suppliers

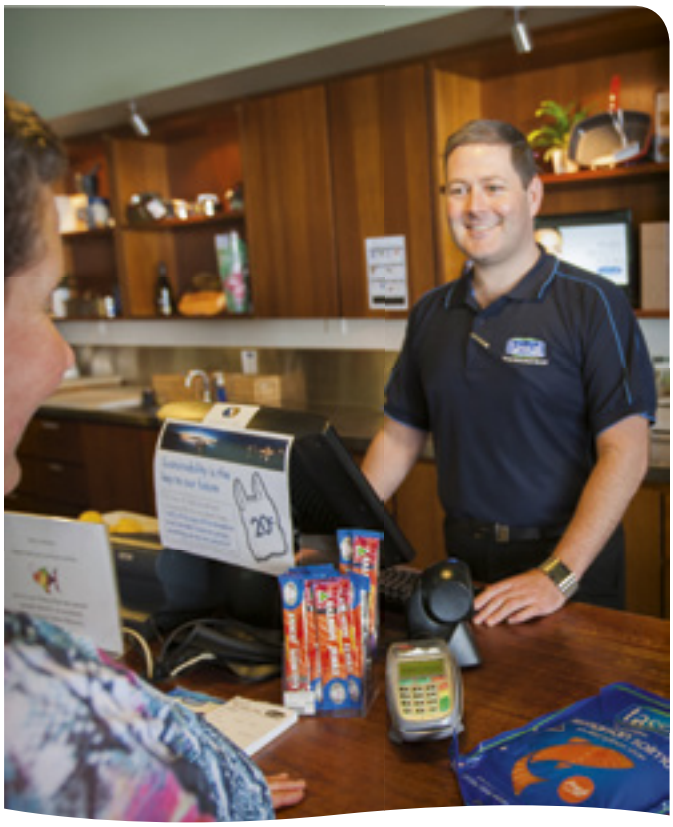


**Numbers refer to the actual number of assessments undertaken.*

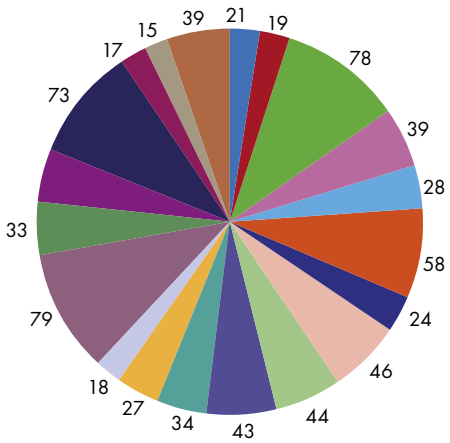
Customer Satisfaction

Tassal continually seeks to improve processes to enhance our products and service to customers. During the reporting year our customer feedback system was further enhanced to include additional categories such as packaging issues, cooking instruction, foreign objects, and use by date and gaping to enable us to better identify key issues and improved transparency. Trends for key feedback areas are monitored and reported at quality review meetings.

Tassal received 770 instances of negative feedback, and 21 of positive feedback in FY2013. This was a 3% increase on the previous reporting period in the negative feedback received but in line with volume growth with no significant isolated trends identified.



Customer Satisfaction



- *Blemishes*
- *Burst Bags*
- *Bones*
- *Colour/Discolouration*
- *Cooking Instructions*
- *Dry/Tough/Chewy*
- *Foreign Objects*
- *Gaping/Soft*
- *Misleading Descriptions*
- *Use By Date Issues*
- *Poor Presentation*
- *Salt*
- *Size/Shape/Appearance*
- *Other*
- *Slicing, Slice Thickness*
- *Smell*
- *Taste*
- *Trimming/Smoking/Texture*
- *Weight Issues*
- *Packaging Issues*

Our People

Within an economy that has seen its fair share of challenges, we have not only continued to survive but more importantly thrive from a people perspective. During this reporting period a major milestone was achieved with Tassal being awarded Tasmanian Employer of Choice status. We are now one of a select number of businesses that have undergone external review and assessed to be leading the field in its commitment to people in aspects of leadership, communication, learning and development, terms and conditions and in general culture. Tassal is extremely proud to have achieved this status as it is external recognition of our commitment to our people.

We remain one of Tasmania's largest employers and continue to take our responsibility seriously to ensure that we provide a safe, productive and rewarding work environment for our people, whether they are full-time, part-time, casual, or seasonal employees. We value our people and are valued by our people. During the reporting period, no industrial action was taken by the union or employees.

In today's competitive marketplace it's becoming more apparent that happy, motivated and engaged employees are key to organisational success. We pride ourselves on our 'can do – safely' attitude, and, as a result, continue to remain achievement focused and agile whilst maintaining a risk identification and minimisation approach to our daily, weekly and annual strategies. We see our approach in the following key areas critical to achieving and maintaining our solid positive culture:

Employer of Choice – we value our people and are valued by our people

- **Right Leadership – 'we walk the talk'.** Our senior team are committed to ensuring visibility and remaining in contact with the operations whilst designing the future vision. We share the glory of success and pain of defeat. We are committed to continue investing in developing our leaders - this point is non-negotiable as it is critical to our continued success
- **Right Direction – 'we understand our purpose'.** Our strategic plans focus around the four pillars of Zero Harm, Optimise the business, Maximise cashflow and Deliver acceptable returns. All key elements fit within this structure and our people can understand what and why we are taking desired actions
- **Right People – 'right people, right time, right place, right skills'** – simple.

Zero Harm for Everyone, Everywhere - we believe this is possible and live it everyday

Safety - Zero Harm for Everyone, Everywhere

Zero Harm for Everyone, Everywhere is our focus and we continue to firmly believe that no job is so important that it cannot be done safely. Our aspiration remains consistent to be among the global best practice companies in health and safety and is committed to a safety agenda that delivers on our zero harm vision. Building in a tolerance for anything less than zero harm is not acceptable and we are continuously working to identify, eliminate or mitigate risks and hazards that potentially compromise the safety of our employees.

Our safety performance for the reporting period did not achieve the standards we believed appropriate given its importance in our strategic direction. Although two out of our three objectives were below targets set, they were above actuals achieved for the previous reporting period and therefore not in line with our projections. As a result we have reviewed our actions which has ensured additional focus and drive from the CEO and Executive Team. Our 'ROCK' safety program has been launched and three members of our Executive team have embarked on a Certificate IV in WHS, with remaining Executive members commencing the internal safety leadership program.

ROCK - underpins our safety and safety cultural journey:

R*esilient Leadership – leading by appropriate example*

O*bservation – active participation and involvement*

C*ommunication – ability to communicate effectively on safety issues*

K*nowledge – understanding the requirements that underpin a safe culture and practices.*

Tassal continues to strive for improved safety performance and the ROCK program provides a solid platform that proactively supports the physical and emotional wellbeing of our people whilst maintaining a strong compliance focus. We firmly believe that a sustainable safety performance is achieved through a culture that acknowledges and respects the need to operate safely. Culture is effectively what people do when you are not looking and ours is to continue to build a culture that results on all employees, contractors and visitors on site being safe at all times.

WHS Lag indicators

12 month rolling comparison	June 10	June 11	June 12	June 13	FY2013 Target	Var. From Target
LTIFR (Lost Time Injury Frequency Rate) Number of LTI's/Total hours Worked x 1 million hours	10.4	10.39	5.42	8.3	=<10	-1.7
Incident Rate (LTI's) Number of LTI's/Number of Workers X 100	2	1.7	0.85	1.28	=<1.7	-0.42
ATLR (Average Time Lost Rate) (LTI's) Number of working days lost/Number of LTI's in period	3.8	4.8	5.7	7.27	=<3	4.27

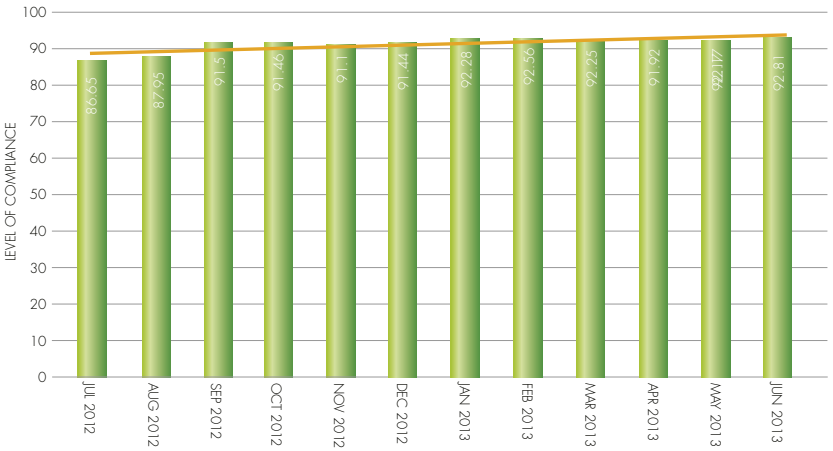
Note:

- *First aid level injuries are included in calculations*
- *Lost days are scheduled work days beginning the first full day of lost time (as per AS/NZS 1885.1-1990)*
- *LTIFR, incident rate or ATLR figures do not include a breakdown of gender as this data is not collected*
- *No fatalities occurred at Tassal in the reporting year.*

Safety targets for FY2014

FY2014	All Sites
LTIFR	6
Incident rate	1.2
ATLR	4

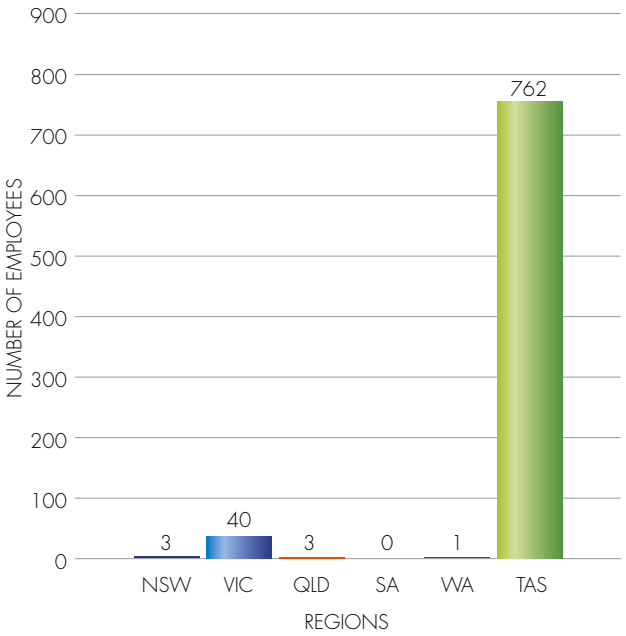
WHS Lead Indicators – Scorecard Trend



Our extensive internal audit program is supported by our WHS Scorecard, which measures standards and policy compliance based on a weighted risk based platform. This platform has and continues to be a site guide of compliance and required actions. Scorecards are conducted by a key member of the WHS team in conjunction with the site team. Current performance exceeds our target of 90%.

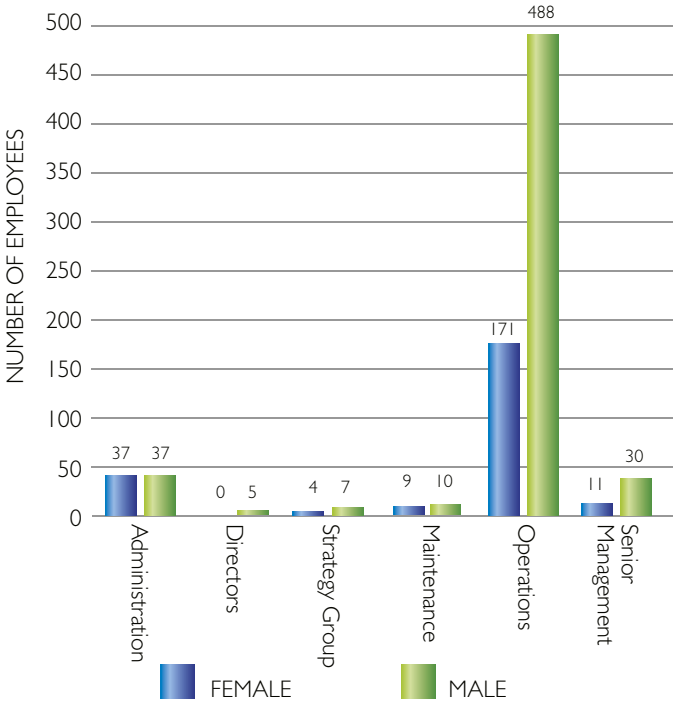
Workforce Profile

Total Workforce by Region

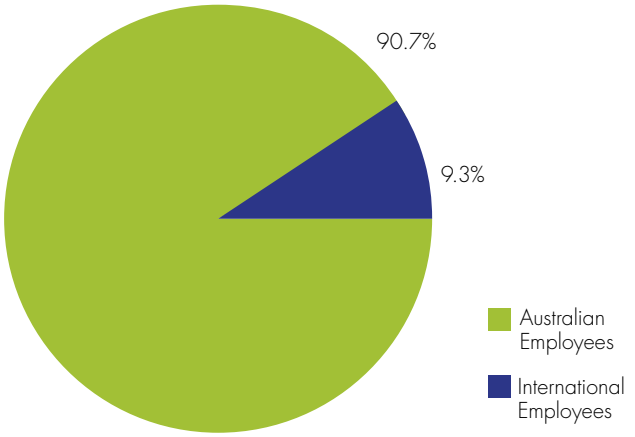


Employee numbers continue to have a dominant leaning towards Tasmanian based with our sales and marketing team location in Kew, Victoria being the main driving force around numbers on the mainland.

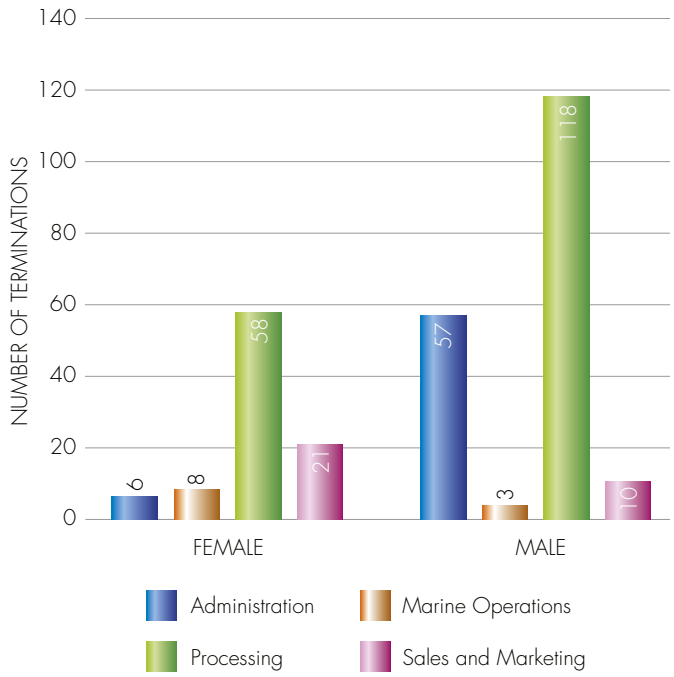
Workforce by Employment Category and Gender



Australian and International Employees



Terminations

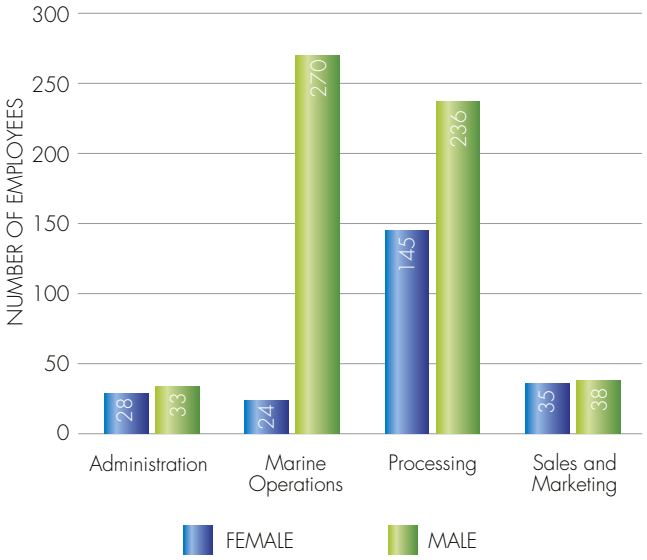


Termination data includes planned turnover i.e. casuals and seasonal employment categories. For the reporting period, true turn over for those permanent placements remained below 10%.

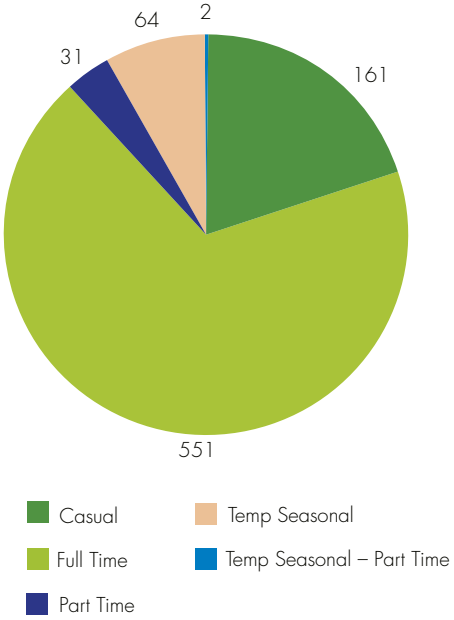
Age Range of Employees

Age Range	Female	Male
>50	57	133
30-50	105	284
<30	70	180
Totals	232	577
Combined Totals	809	

Workforce by Department and Gender



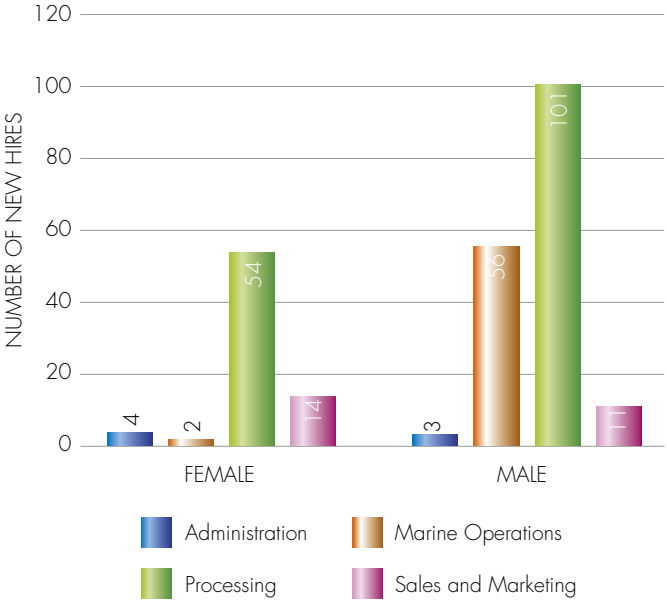
Workforce by Employment



**Casual and seasonal employees comprise a significant portion of Tassal's employment base due to peak demand periods including Easter and Christmas*

Key movement in workforce by employment data from the previous reporting period shows an increase in fulltime positions by 6% and a decrease in casual positions of around 4%, supporting our focus on regional stability through increasing income stability and predictability for an increased number of local employees.

New Hires

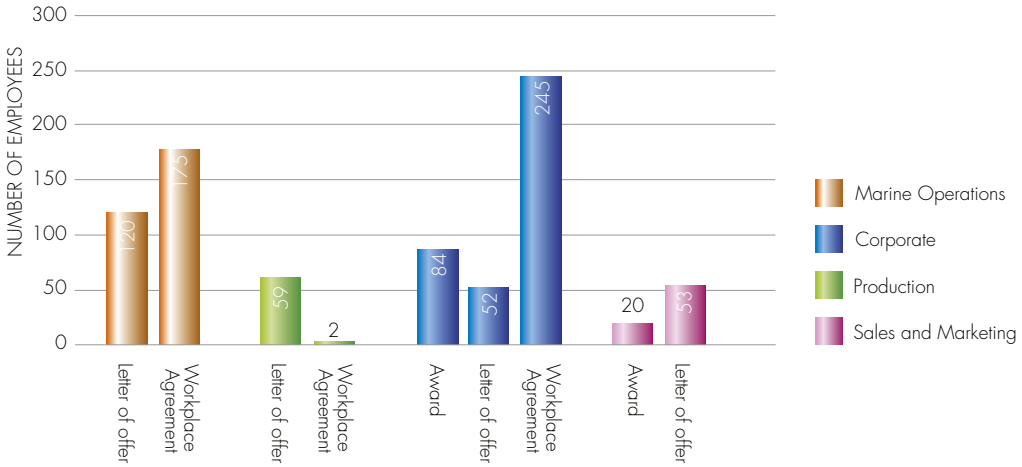


New hire figures include all seasonable, casuals, part time and fulltime staff. As expected, the seasonal nature of our processing environment, particularly around Easter and Christmas, drives volume of new recruits as required. Seasonal and casual employment options make up around 29% of our employment base.

Employee Turnover by Age, Department and Region

Department	<20	20-29	30-39	40-49	50-59	>60	Totals
Administration	2	2	2	2	2	1	11
Female	2	2	1	0	2	1	8
Male	0	0	1	2	0	0	3
Marine Operations	4	17	13	18	8	3	63
Female	0	0	2	2	2	0	6
Male	4	17	11	16	6	3	57
Processing	34	89	28	12	9	4	176
Female	7	26	14	3	5	3	58
Male	27	63	14	9	4	1	118
Sales and Marketing	2	10	10	4	4	1	31
Female	1	8	8	2	2	0	21
Male	1	2	2	2	2	1	10
Grand Total	42	118	53	36	23	9	281

Employment Type by Department



52% of workers are employed under WPAs, 13% under award, with the remaining 35% as salaried employees.

Diversity and Equal Opportunity

Tassal remains focused on the diversity aspects of placements into positions whilst operating within an environment of 'the right person for each position', regardless of gender. We expect that the long term trend for the proportion of females to males will increase steadily.

During the reporting period and increase in females in our Senior Management team rose from 13% to 35% and in our Executive team from 33% to 36%. At the Board level however we remain unrepresented by a female Director.

No incidents of discrimination occurred nor have any incidents been lodged with the Anti-Discrimination Tribunal during the period.

Tassal continues to participates in career forums, school networks and community networks to reinforce positive messages to both males and females regarding careers within Tassal.

Employee Benefits

To support of Employer of Choice status our employees continue to enjoy a range of benefits such as:

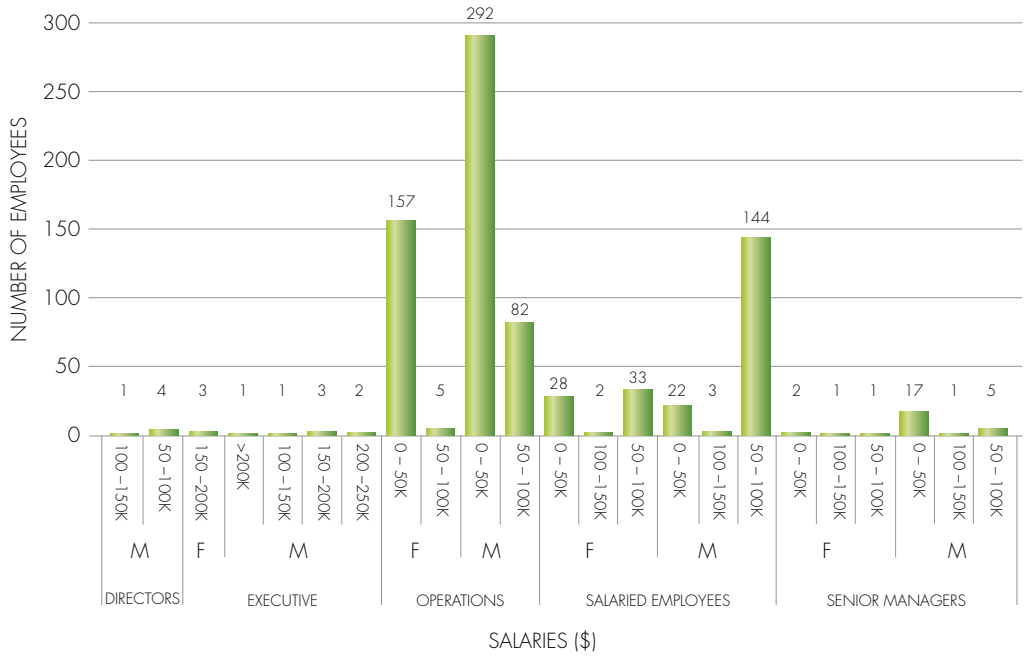
- Maternity and parental payments above the Government standards
- Discount benefits for medical insurance options*
- Birthday leave - additional day off on your birthday*
- Onsite medical and physiotherapist support one day per week (located at Huonville)
- Annual flu injections
- An externally facilitated confidential Employee Assistance Program (EAP)
- Alcohol and drug education
- Redundancy payments well above the national minimum based on age and years of service.

**New benefit introduced in the reporting year.*

Equity of Pay

Remuneration is based on individual merit regardless of gender.

Employee Salary by Category



Our Commitment to Learning & Development

As part of our leadership platform, we continue to believe that to ensure the right people are in the right place with the right skill at the right time, you need to invest in learning and development. We are now into our third round of our 'IMPACT' training program and believe the benefits received by the business are significant. This combined with our technical based training results in information below which is a solid training contribution for the industry. We also continue to support our internal Certificate IV WHS program and have again nominated employees to participate in external programs such as the National Seafood Leadership program.

Tassal continues to be supported by government funding for our programs which we believe also confirms the programs that we adopt have external merit and support.

	Training by external providers		Internal training by Tassal		All Training (Combined)	
SITE	% Spread of training hours by department	Average training hrs per employee by department	% Spread of training hours by department	Average training hrs per employee by department	% Spread of training hours by department	Average training hrs per employee by department
MOPS	81%	55.06	45%	8.46	73%	63.52
Processing	12%	7.97	43%	6.14	18%	14.11
Administration	6%	4.1	3%	2.39	5%	6.49
Sales And Marketing	2%	1.02	9%	6.91	3%	7.93

Note: The variation between training allocation between our MOPS and other components of the business reflect the degree of compliance based licencing training required in this area.

Community Engagement

Engaging with our communities in meaningful ways is a high priority for Tassal. Building strong relationships with our communities gives us an indication of what we are doing well and where we can improve, helping us to contribute in the most effective and appropriate way we can.

We have had the privilege of being involved in some exciting community projects this year.

Your Marine Values Project

The 'Your Marine Values Project' workshops have been a great platform to share ideas and learn about what matters most about the local marine environment to all of the different communities with an interest or stake in the marine waters of the lower Huon Estuary and D'Entrecasteaux Channel. We are looking forward to participating in further workshops next reporting year as well as reviewing the outcomes of this community based research run by dedicated local research teams from IMAS and CSIRO.

Skilling Tasmania for a Sustainable Future

'Skilling Tasmania for a Sustainable Future' is an exciting new project aimed at determining the skills needed for Tasmania's business community to address sustainability issues and thrive and prosper into the future. Participants involved formulate recommendations about achieving sustainable prosperity through education and also generate impetus for action within the community. Tassal was honoured to be chosen as a 'champion' business for this project and we are looking forward to the upcoming year.

"True engagement for me is about an 'exchange'"

Fiona Ewing, Community Engagement Officer

"Tassal was at the forefront of our minds when we put our proposal to the Commonwealth back in May 2013. We needed leaders who were already on the sustainability pathway to show us what was possible for the Tasmanian industry - to provide a vision. Tassal provided many stories that unequivocally illustrate the benefits of pursuing sustainability as core to business operation. This has been invaluable in providing others with a map for their own sustainability journey and the motivation to embark on the journey."

Sarah Lowe – Project Team member, Skilling Tasmania for a Sustainable Future

D'Entrecasteaux Channel Project

A truly collaborative project of which we are proud to be a financial founding member and contributor, the D'Entrecasteaux Channel Project is a collaboration of locally committed entities including state government agencies, non-government organisations, research institutes and the local aquaculture industry who share an interest in the long term health of the waterway.

A significant output of the project during the reporting year is the release of the 'State of the D'Entrecasteaux Channel and Lower Huon Estuary 2012' and complementary 'Inventory of Scientific Information' reports. The reports and information are critical tools to inform decision making regarding the waterway. (see: http://www.kingborough.tas.gov.au/page.aspx?u=660).

Schools

Learning opportunities through Tassal site visits for school students were facilitated by the Seafood Industry Partnerships in Schools Program during the reporting year. The Woodbridge Marine Discovery Centre is a local educational facility through which many Tasmanian students experience the wonder of the marine world. We feel lucky to have them close to our doorstep and frequently welcome their boat the MV Penghana and her student passengers to our lease at Soldiers Point .

This year Tassal has supported the following opportunities for our local schools to engage with our industry through the 'Working on Water Program', a careers day held at Strahan for West and North West Coast year 9 and 10 students.

Talks and Workshops

Tassal participated in many talks throughout the reporting year including:

- Tasmanian Leaders Program
- ABARES Regional Outlook Conference, Tasmania, 2012 Burnie
- Presentation to Huon Valley Council (industry)
- ABARES Rural Outlook, National Conference, 2013, Canberra
- Primary Industry Centre for Science Education.

Tassal participated in the following workshops:

- Workshop on improving the linkages between knowledge and decision-making in Salmon aquaculture exploring a key theme of collaboration and engagement with a view to improving the social, environmental and economic outcomes resulting from Salmon Aquaculture
- Community Engagement Matters – West Coast Community Engagement Forum.

Tassal hosted Dr Eric Woehler from BirdLife Tasmania and interested stakeholders for a presentation regarding the status and trends of gull populations in South East Tasmania.

Papua New Guinea Project

Tassal is looking for ways to contribute to projects in developing countries where our skill sets may contribute towards food security and improved outcomes for communities. This is a new area for Tassal. During the reporting year, we have tentatively put ourselves forward to a number of organisations as being willing to offer assistance.

Of note is our commitment to offer technical support to a University of Tasmania project in Papua New Guinea (PNG). The project seeks to build research and project management skills in fisheries staff in PNG and will be further developed on as needs basis in Port Moresby and regional centres. We look forward to working with the project team to explore the most effective and valuable ways in which our collaboration would benefit the success of the project, particularly the individuals and communities that this project seeks to assist.

UTAS-Nubeena Field Trip

For the past three years Tassal has hosted the UTAS Birds and Mammals of the Southern Ocean Course (BAMSO) at its Nubeena farm site. This reporting year 25 marine science students (ranging from second year undergraduates to Masters students) and six staff attended the week long course. The course teaches students field experiment experience in project development, gathering data and report writing.

The four focus areas of the course are off shore birds, wading/shoreline birds, penguins and seabirds and Salmon farm interactions.

The students investigating the seabird/salmon farm interactions were both impressed and disappointed at Tassal's concerted effort to improve exclusion measures. Bird interactions have been reduced to such a level that a new project will have to be developed next year.

During the week students and staff become aware of the complexity involved in Salmon farming and the measures that Tassal has taken to become more responsible and sustainable throughout all aspects. Many thanks to all the staff from Nubeena for the knowledge passed on - the time spent with the students was invaluable.

Bushfires

In January 2013, parts of south east Tasmania were severely impacted by bushfires. The communities affected included the Tasman Peninsula where one of our farming regions is located.

Due to the topography of the Tasman Peninsula and the location of the fires, the peninsula became isolated for a number of days during the emergency. The entire locality was without electricity and the only access road was cut, stranding thousands of tourists and locals with no fresh food or medical supplies able to be delivered.

The amazing 'can do' attitude of Tassal staff really came to the fore in this terrible situation and they provided practical assistance by delivering badly needed bags of ice, water, eskies, solar showers, extension cords, coffee, fresh fruit and vegetables, and of course, Salmon.

At the same time, our farm supply boat Tassal Mariner and our contract vessel Ambush were made available to the State Emergency Service to deliver emergency supplies whilst the road was blocked. Tassal Mariner made extra trips to Nubeena with diesel, keeping our farm operating and providing desperately needed fuel to the local fire crews. Tassal generators were also transported to the Peninsula, and installed where they were needed most. Many of our staff volunteer their time in local volunteer fire brigades and risk their lives to help others. In addition, our staff raised $7000 for the Dunalley Primary School Association to assist with the ongoing support required to get the school back on its feet and replace some of their valuable prized possessions lost in the fire.

Thank you so much to the management and all of the staff at Tassal for their amazing generosity towards Dunalley Primary School right from the very outset. It is a most heartfelt gesture from an already extremely supportive business in our region and rest assured your donation will be reserved for a special purpose for the new school. It is fabulous to have the monthly donation of salmon for the Farmers Market as an on-going reminder of this generosity and it gives our parent community the opportunity to play their own role in supporting the school into the future.

We are delighted to know that none of our current families who were directly affected by the fires are re-locating out of the area which means that all of our children will return to the school. This is what really matters to all of us. Thanks for recognising the important role that country schools play in a community.

Dunalley Primary School

Complaints

We have been tracking and recording community complaints for two years. An improvement is evident with a 39% reduction in complaints from the preceding year. When complaints are received, we are committed to respectfully listening to the complainant and doing what we can to resolve or mitigate the issue. Complaints are a valuable asset and a tool for creating change. We encourage community members to voice their concerns to us.

We are making great progress in farming regions that have traditionally had challenges with noise. Noise protocols, changes in operational practices and noise mitigation works have been largely successful. Some neighbours have even expressed their gratitude for longstanding issues being resolved.

In the town of Strahan, Tassal installed a temporary ice making facility. The location was inappropriate and impacted two local accommodation businesses as well as residents in the area. The amenity of locals and visitors to the town was also affected. We are aiming to rectify this situation in FY2014.

	FY2013	
Complaint Type	Number of Complaints	Region
Trucks – safety	1	Huon & Channel
Noise – (farms)	6	Huon & Channel (4), Tasman (1), Mac Harbour (1)
Noise – (Land based)	5	Huon & Channel (2), West Coast (3 Ice facility)
Noise (Trucks)	1	Huon & Channel (1)
Marine Debris	4	Huon & Channel (3), Tasman (1)
Total	17	

Note: Complaints received about trucks may involve contractors working on behalf of Tassal. We consider these complaints to be our responsibility and work pro-actively with contractors to resolve issues as they arise.

Marine Debris

Marine debris remains a key focus area for Tassal and we accept responsibility for marine debris entering waterways from any of our farms. In the reporting year, our waste mitigation plan was rolled out across all Marine Operational sites. Part of this plan includes a schedule of clean-ups to be undertaken by each region. Farm staff are supported in meeting this schedule by our casual staff. These additional resources assist farm based staff in conducting shoreline clean-ups.

We have developed and implemented farm level waste mitigation plans across all marine sites and post storm checklists and inventory management support these. Marine debris is not only an environmental issue, but a safety issue as the collision of a vessel with marine farming debris may result in damage to the vessel and injury to vessel crew.

	Volume of rubbish removed	Hours	% attributable to Salmon farms
FY2011	27	200	not recorded
FY2012	20	335	50
FY2013	30.9	363	59

Sponsorships & Donations

Tassal's community sponsorship and donation budget is $110,000. Product and Salmon shop voucher donations comprise 13% and are used for fundraising or contributions to community events. Cash contributions make up the remainder.

Some contributions take the form of in-kind donations of time and expertise which are not included in the budget.

Seventeen local schools and 37 local sporting clubs have received a donation from Tassal and seven local sporting clubs have formal ongoing sponsorship agreements with us. Tassal is apolitical and does not make donations to political parties.

FY2013 recipients of sponsorships and donations include:

Donation Category	% of total sponsorships and donations
Local sporting clubs	52
Schools & youth	7
Environmental initiatives	8
Community initiatives	20
Charities	8
Community based arts	5

Foodbank Donation

Tassal donated 2,000 Salmon to Foodbank Tasmania just prior to Christmas, 2012. Foodbank provides food to low-income or single parent families, singles, children and the elderly via local charities.

We joined forces with Mures Tasmania, the business that processed and packaged the fish in time for distribution by welfare and community agencies for Christmas. The fish was sourced from our Russell Falls hatchery.

We are pleased to have been able to provide healthy and nutritious meals to Tasmanian families in need at such a special time of year and thankful to Mures Tasmania for their processing and packaging support.

Bountiful Bruny

Some of our local Bruny island staff had a great time this year supporting their local community. 'Bountiful Bruny' is a new event for the island showcasing the island's fantastic local produce. Our wildlife management officer Andrew Hunter and his crew decided to take some Tassal produce for the locals to taste. All money raised through the sale of our product was donated to the Lunawanna Hall Committee. The Lunawanna Hall Committee is excited at the success of this inaugural event and looking forward to the event next year.

Active Strahan	Ten Days on the Island	Bonorong Wildlife Park
Working on Water Program	Live free Tassie	Country Women's Association
Tasmanian Theatre Company	On the Edge Art Exhibition, Dover	Huon Agricultural Society
Headin' South for a cure	Healthwest	Hobart Mum's network
Rotary Club of Hobart	Tasman Peninsula Historical Society	A Day on the Beach, Kingston
Bruny Island Bird Festival	Strahan Volunteer Fire Brigade	Hamilton District Agricultural Show Society
Kingston Beach Surf Lifesaving club	Huon Art Exhibition	Mt Lyell Picnic Day
State of the D'Entrecasteaux Channel Project	Strahan Christmas decorations committee	Southern Coast Care Association of Tasmania
Lions Club	Bruny Island, Channel and Tasman Men's Sheds	Geeveston and Dunalley bushfire appeals (not including staff donations)

Glossary

Ammonia

A compound of nitrogen and hydrogen with the formula NH3. It is a colourless gas with a characteristic pungent odour. Ammonia contributes significantly to the nutritional needs of terrestrial organisms by serving as a precursor to food and fertilisers.

Amoebic Gill Disease (AGD)

A potentially fatal disease of some marine fish. It is caused by Neoparamoeba perurans, the most important amoeba in cultured fish.

Anti-foulant nets

See copper treated nets.

Anti-parasitic

A drug used to treat or prevent parasitic infections.

Aquaculture

The farming of aquatic organisms including fish, molluscs, crustaceans and aquatic plants with intervention such as regular stocking, feeding and protection from predators in the rearing process to enhance production.

Aquifer

An underground layer of water-bearing rock.

AS4801

Australian Standard that establishes an audit framework principally for use by third party bodies that have been asked by an organisation to conduct an independent audit of the organisation's OHS management system.

Aquaculture Stewardship Council (ASC)

A third party audited world recognised environmental standard evolving from the Salmon Aquaculture Dialogues.

ATLR

Average time lost rate.

Best Aquaculture Practices (BAP)

A third party audited world recognised environmental standard.

Benthic

Relating to or happening on the bottom under a body of water.

Biofouling

The gradual accumulation of organisms such as algae, bacteria, barnacles, and protozoa on underwater equipment, pipes, and surfaces, corroding and impairing structures and systems.

Biological Oxygen Demand (BOD)

The amount of oxygen required by aerobic microorganisms to decompose the organic matter in a sample of water, such as that polluted by sewage. It is used as a measure of the degree of water pollution.

Biomass

Biomass is biological material derived from living organisms such as algae, plankton or fish.

Biosecurity

Procedures or measures designed to protect a population against harmful biological or biochemical substances.

Bird interaction

Interaction between a bird and a marine farm. The bird may attempt to enter a pen, eat fish or fish feed, or damage farm equipment.

Blood meal

The dried and powdered blood of animals used in animal feeds.

Bloodwater

The liquid material that separates from the fish during storage.

Bore water

Ground water that has accumulated in underground aquifers.

Bovine

Sourced from cattle.

Broodstock

Broodstock, also known as broodfish, are a group of mature Salmon for breeding purposes in aquaculture.

Coliforms

Gram-negative rod-shaped bacteria (as E. coli) normally present in the intestine.

Copper treated nets

Net treated with copper based paint. The paint discourages growth of fouling organisms.

Cradle to grave

A method of life cycle analysis that tracks the impact of a process from creation to disposal (see LCA).

Cryopreservation

The preservation of cells by subjection to extremely low temperatures.

CSIRO

Commonwealth Scientific and Industrial Research Organisation.

Cumulative Energy Demand (CED)

Cumulative energy demand is the total quantity of primary energy required over the lifecycle of the product.

Department of Primary Industries, Parks, Water and Environment (DPIPWE)

Tasmania's State Government entity that is responsible for the sustainable management and protection of Tasmania's natural and cultural assets for the benefit of Tasmanian communities and the economy.

Ecological Interaction

The relation between species that live together in a community.

Environmental Management System (EMS)

An Environment Management System (EMS) is a tool for managing the impacts of an organisation's activities on the environment. It provides a structured approach to planning and implementing environment protection measures.

Environmental Non-Governmental Organisation (ENGO)

A non-governmental organization (NGO) with particular focus on environmental issues.

Epidemiology

The study of how often and why diseases occur in different groups of species.

Euthanasia

The act of putting to death painlessly or allowing to die, as by withholding extreme medical measures an animal suffering from an incurable, especially a painful, disease or condition.

Eutrophication

Natural or artificial addition of nutrients to bodies of water which may change the natural marine or fresh water systems.

Eutrophication potential

The potential of nutrients to cause over fertilisation.

Fallowing

The practice of 'resting' an area from beneath the sea pen to improve the health of the substrate after farming activity.

Finfish

Fish with fins as opposed to crustaceans or molluscs.

Fish in: fish out

The total kilogram of wild fish it takes to produce one kilogram of farmed salmon expressed as a ratio.

Fish meal

Fish meal is a commercial product made from both whole fish and the bones and offal from processed fish. It is a brown powder or cake obtained by rendering and pressing the cooked whole fish or fish trimmings to remove most of the fish oil and water.

Fish oil

Fish oil is oil derived from the tissues of oily fish.

Flumazenil

A benzodiazepine agonist used to reverse the effects of benzodiazepines after sedation or general anaesthesia.

Foodbank Tasmania

Foodbank is a non-denominational, non-profit organisation based in Tasmania which distributes food from the food industry's excess food to charities and community groups who feed the hungry.

Forage fish

Often called bait fish, forage fish are usually smaller fish which sustain larger predators.

Freshwater aquaculture

Aquaculture that occurs in a freshwater system.

Functional feed

A modified food that claims to improve health or well-being by providing benefit beyond that of the traditional nutrients it contains.

Global Aquaculture Alliance (GAA)

GAA is an international, non-profit trade association dedicated to advancing environmentally and socially responsible aquaculture.

Global Warming Potential (GWP)

A relative measure of how much heat a greenhouse gas traps in the atmosphere.

Hatchery

A facility where fish eggs are hatched under artificial conditions.

HOG

Fish that have been processed as 'Head on and gutted'.

Hog equivalent tonne

Head on gutted weight.

Hydrolysate

A manufactured by-product of fish waste.

IFFO RS

The IFFO RS is an independent third party auditor with a certification programme that assures that the value chain of marine ingredients are responsibly sourced and responsibly produced.

Institute for Marine and Antarctic Studies (IMAS)

IMAS pursues multidisciplinary and interdisciplinary work to advance understanding of temperate marine, Southern Ocean, and Antarctic environments.

Invertebrate

An animal that does not have a spinal column such as worms and crustaceans.

Key Performance Indicator (KPI)

A measure used to evaluate success or monitor progress towards a particular goal.

Lag indicator

An indicator that follows an event (e.g. rate of incidents/injuries).

LCA

Life Cycle Assessment (see cradle to grave).

LTI

Lost time injury.

LTIFR

Lost time injury frequency rate.

Macroalgae

Large aquatic photosynthetic plants.

Macro Invertebrate

An organism without a backbone.

Maugean Skate

A species of fish in the Rajidae family that resides in Macquarie Harbour on the Tasmanian West Coast. It is listed as endangered in the IUCN Red List.

Marine farming

Describes the process of aquaculture in a marine environment.

Marine Stewardship council (MSC)

The MSC is a leading certification and ecolabelling program for sustainable seafood.

Material issues

Material issues are those issues identified by our stakeholder groups as important to them.

Microbe

A microorganism, especially a bacterium causing disease.

Midazolam

A benzodiazepine tranquilizer, used as the maleate ester for sedation and in the induction of anaesthesia.

Modified Atmosphere Packaging

The modification of the composition of the internal atmosphere of a package in order to improve the shelf life.

MTIFR

Medically Treated Injury Frequency Rate.

Neoparamoeba perurans

An amoeba that thrives in high salinity sea water at increasing temperatures.

Non-GMO

A non-genetically modified organism.

Non-Government Organisation (ENGO)

A non-governmental organization (NGO) is any non-profit group which is organised on a local, national or international level.

Offcuts

Trimmed sections from a fish fillet not usually preferred by the consumer market.

OIE (The World Organisation for Animal Health)

An intergovernmental organisation responsible for improving animal health worldwide.

Omega-3

Being or composed of polyunsaturated fatty acids that have the final double bond in the hydrocarbon chain between the third and fourth carbon atoms from the end of the molecule opposite that of the carboxyl group. These are found in fish, fish oils, green leafy vegetables, and some nuts and vegetable oils.

Orthomyxo Virus

Any virus belonging to the family Orthomyxoviridae.

Passive seal deterrents

Seal deterrents that do not actively engage with the seal. An exclusion net is an example.

Pathogen

A bacterium, virus, or other microorganism that can cause disease.

Pathogenicity

The ability of an organism to cause disease (i.e., harm the host).

Pelagic fisheries

Fisheries which exploit fish that live in the water column, or close to the water surface.

Pneumatic

Containing or operated by air or gas under pressure.

Porcine

Sourced from pigs.

Predator

Any organism that exists by preying upon other organisms.

Reticulated Water

Treated water supplied through a system of pipes, mains and control valves.

ROV Dive

Dives that are performed without humans but with Remote Operated Vehicles.

Salmon Anaemia Virus

A finfish disease caused by a virus that belongs to a family of viruses called Orthomyxoviridae.

Salmonid

Any fish of the family Salmonidiae, which includes Salmon.

Salmo salar

The scientific name for Atlantic Salmon.

Sea lice

Tiny parasites that live on the surface of wild marine fish.

Seal interaction

Interaction that occurs when a seal attempts to enter a pen, eat fish or damages farm equipment in a marine farm environment.

Selective breeding

The intentional breeding of organisms with desirable trait in an attempt to produce offspring with similar desirable characteristics or with improved traits.

Sequencing Batch Reactors (SBR)

Industrial processing tanks for the treatment of wastewater such as sewage or output from anaerobic digesters or mechanical biological treatment facilities in batches. Oxygen is bubbled through the wastewater to reduce biochemical oxygen demand (BOD) and chemical oxygen demand (COD) which makes the effluent suitable for discharge.

Sludge

Depositional material (including faeces and excess feed) that falls out from fresh water and settles in holding tanks or pond.

Smolt

A stage in the life cycle of salmonids at which the salmon is ready to move from the freshwater to saltwater environment.

Tasmanian Salmonid Growers Association

The Tasmanian Salmonid Growers' Association Ltd is Tasmania's peak body representing salmon growers. It is a not-for-profit organisation.

Tassal Integrated Management System (TIMS)

Tassal's internal management system that includes procedures for the management of environmental, safety and quality indicators.

Total Kjeldahl Nitrogen (TKN)

The sum of organic nitrogen, ammonia (NH3), and ammonium (NH4+) in the chemical analysis of soil, water and wastewater.

Total Phosphorous

The total concentration of all forms of phosphorus found in a water sample.

Total Suspended Solids (TSS)

All particles suspended in water which will not pass through a filter.

Traceability

The ability to track any food through all stages of, production, processing and distribution. All movements can be traced one step backwards and one step forward at any point in the supply chain.

Transgenic

Relating to, or being an organism whose genome has been altered by the transfer of a gene or genes from another species or breed.

UK RSPCA Atlantic Salmon Standard

RSPCA (UK) welfare standards have been developed to represent 'best practice' in the care and welfare of commercially-farmed Atlantic salmon at all stages of their lives.

Value-added product

The enhancement a company gives its product or service before offering the product to customers, for example, 'smoked salmon' is salmon that has been modified through a special cooking process.

Wild Salmon

Salmon produced by natural spawning in fish habitat from parents that were spawned and reared in fish habitat (i.e. not farmed Salmon).

WWF-Australia

WWF-Australia is part of the WWF International Network, the world's leading, independent conservation organisation.

References

Abrantes, KG, Lyle, JM, Nichols, PD, & Semmens, JM 2011, Do exotic salmonids feed on native fauna after escaping from aquaculture cages in Tasmania? *Canadian Journal of Fisheries and Aquatic Sciences*, vol. 68, pp. 1539-1551.

CSIRO, Division of Marine Research Huon Estuary Study Team 2000, Huon estuary study: environmental research for integrated catchment management and aquaculture.

Department of Sustainability, Environment, Water, Population and Communities 2012, Notification of Referral Decision: Marine Farming Expansion, Macquarie Harbour, Tasmania (EPBC 2012/6406) [ONLINE] Available at: http://www.environment.gov.au/epbc/notices/assessments/2012/6406/2012-6406-referral-decision.pdf. [Accessed 17 March 2014].

Ross, J & Macleod, C 2014. *Evaluation of Broadscale Environmental Monitoring Program (BEMP) data from 2009-2012.* [ONLINE] Available at: http://dpipwe.tas.gov.au/Documents/Ross---Macleod-BEMP-Data-Review-2009-2012-.pdf. [Accessed 17 March 2014].

Steer, M & Lyle, J 2003, Monitoring escapees in Macquarie Harbour: a collaborative study between the salmon industry (TSGA) and the Tasmanian Aquaculture and Fisheries Institute.

Tassal Operations Pty Ltd 2010. Dover Processing Plant Production Intensification: Development Proposal and Environmental Management Plant. [ONLINE] Available at: http://epa.tas.gov.au/documents/tassal_dover_dpemp.pdf. [Accessed 17 March 2014].

Which way are you heading on the Dunphy sustainability scale? - Accelerated Sustainability. 2014. [ONLINE] Available at: http://www.cloudcitizen.com/acceleratedsustainability/which-way-are-you-heading-on-the-dunphy-sustainability-scale.html. [Accessed 16 March 2014].

GRI Content Index

	PROFILE DISCLOSURES	Full or partial reporting	Page Number
	Strategy and Analysis		
1.1	Statement from the CEO	Full	6,7
1.2	Key impacts, risks and opportunities	Full	6-8, 21, 22
	Organisational Profile		
2.1	Name of the organisation	Full	Cover
2.2	Primary brands, products, and/or services	Full	2
2.3	Operational structure	Full	2
2.4	Location of headquarters	Full	2
2.5	Countries located	Full	11
2.6	Nature of ownership and legal form	Full	2
2.7	Markets served	Full	2
2.8	Scale of the organisation.	Full	2-4, 6,7
2.9	Significant changes during the reporting period	Full	11
2.10	Awards received in the reporting period	Full	13
	Report Parameters		
3.1	Reporting period	Full	11
3.2	Date of most recent previous report	Full	11
3.3	Reporting cycle	Full	11
3.4	Contact details	Full	61
3.5	Process for defining report content	Full	11, 15
3.6	Boundary of the report	Full	11
3.7	Limitations on the scope or boundary of the report	Full	11
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities	Full	11
3.9	Data measurement techniques	Full	11
3.10	Re-statements of information provided in earlier reports	Full	11
3.11	Significant changes from previous reporting periods	Full	11
3.12	Standard disclosures table	Full	56-59
3.13	External assurance	Full	11
	Governance, Commitments and Engagement		
4.1	Governance structure	Full	www.tassal.com.au/governance-policies
4.2	Chair of the highest governance body	Full	12
4.3	Members of the highest governance body	Full	13
4.4	Mechanisms for shareholders and employees to provide recommendations to the highest governance body	Full	www.tassal.com.au/governance-policies
4.5	Compensation for board, senior managers and executives and organisation performance	Full	www.tassal.com.au/governance-policies
4.6	Conflict of interest processes	Full	www.tassal.com.au/governance-policies
4.7	Qualification and expertise of board members	Full	www.tassal.com.au/governance-policies
4.8	Mission statements, values, codes of conduct and principles	Full	www.tassal.com.au/governance-policies
4.9	Procedures for board to oversee identification and management of economic, environmental and social performance	Full	www.tassal.com.au/governance-policies
4.10	Performance evaluation of board	Full	www.tassal.com.au/governance-policies

	PROFILE DISCLOSURES	Full or partial reporting	Page Number
	Governance, Commitments and Engagement continued		
4.11	Precautionary principle	Full	www.tassal.com.au/sustainability/our-environment
4.12	Economic, environmental and social charter, principles and initiatives	Full	7, 9, 10, 14, 30
4.13	Memberships	Full	3
4.14	Stakeholder groups engaged by the organisation	Full	15-17
4.15	Basis for identification and selection of stakeholders	Full	15
4.16	Approaches to stakeholder engagement	Full	15-17
4.17	Topics raised by stakeholders	Full	15-17
	DISCLOSURES ON MANAGEMENT APPROACH (DMA)	Full or partial reporting	Page Number
	Sourcing		
	Protecting natural resources	Full	32
	Minimising toxicity	Full	26
	Fair compensation for labour	Full	47
	Traceability	Full	40
	Animal Welfare	Full	31
	Economic		
	Economic Performance	Full	10
	Environment		
	Materials	Full	32
	Energy	Full	29
	Water	Full	28
	Biodiversity	Full	22
	Emissions, effluents and waste	Full	23, 26
	Products and services	Full	22, 32
	Compliance	Full	20
	Transport	Full	29
	Overall	Full	22
	Labour		
	Employment	Full	42
	Labour and management relations	Full	www.tassal.com.au/working-at-tassal
	Occupational health and safety	Full	43
	Training and education	Full	47
	Diversity and equal opportunity	Full	46
	Human Rights		
	Non-discrimination	Full	46
	Society		
	Community	Full	48

	DISCLOSURES ON MANAGEMENT APPROACH (DMA)	Full or partial reporting	Page Number
	Product Responsibility		
	Customer health and safety	Full	40
	Animal Welfare		
	Breeding and genetics	Full	31
	Animal husbandry	Full	31
	Transportation, handling and slaughter	Full	33
	PERFORMANCE INDICATORS	Full or partial reporting	Page Number
	Sourcing		
FP1	Purchased volume from suppliers compliant with sourcing policy	Full	40
FP2	Purchased volume verified by credible and recognised responsible production standards	Partial	40
	Economic		
EC1	Direct economic value generated and distributed	Full	6, 12, 51
EC2	Financial implications and other risks and opportunities for the organisation's due to climate change	Partial	21, 22
	Environmental		
EN1	Materials used by weight or volume	Full	33
EN3	Direct energy consumption by primary energy source	Partial	29
EN8	Total water withdrawal by source	Partial	29
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	Full	19, 22, 23, 26, 33-35
EN22	Total weight of waste by type and disposal method	Full	24-25
EN26	Initiatives to mitigate environmental impacts of products and services	Full	22-24, 26, 27, 30, 33, 34
EN29	Environmental impacts of transporting products, goods and materials in operations	Partial	29
	Labour		
LA1	Total workforce by employment type and contract, region and gender	Full	44, 45
LA2	Total number and rate of employee turnover by age group, gender and region	Full	44-46
LA3	Benefits provided to full time employees	Full	46
LA4	% employees covered by collective bargaining agreements	Full	46
FP3	% working time lost to industrial disputes	Full	42
LA6	Total workforce represented in formal joint management-worker health and safety	Full	www.tassal.com.au/working-at-tassal
LA7	Rates of injury	Full	43
LA9	Health and safety topics covered in trade union agreements	Full	www.tassal.com.au/working-at-tassal
LA10	Hours of training per year per employee by category	Partial	47
LA11	Programs for skills management and lifelong learning of employees	Partial	43, 47
LA12	% employees receiving regular performance reviews	Full	www.tassal.com.au/working-at-tassal

	PROFILE DISCLOSURES	Full or partial reporting	Page Number
	Labour continued		
LA13	Composition of governance bodies and breakdown of employees per category per various diversity indicators	Full	45, 46
LA14	Ratio of basic salary of men to women by employee category	Full	47
	Human Rights		
HR4	Total number of incidents of discrimination and actions taken	Full	46
	Society		
SO1	Impact of operations on local communities	Partial	48-50
SO6	Value of financial and in-kind contributions to political parties, politicians and related institutions	Full	51
	Product Responsibility		
FP5	% production volume manufactured in sites certified by an independent third party	Full	www.tassal.com.au/about-us/food-quality
PR5	Practices around customer satisfaction, including results	Full	41
	Animal Welfare		
FP9	% and total of animals raised and processed by species	Full	2, 31, 32
FP11	% and total of animals raised and processed by species per housing type	Full	2 & www.tassal.com.au/sustainability/our-salmon
FP12	Policies and practices on use of antibiotics, hormones and growth promotion treatments	Full	32
FP13	Non-compliance with laws and regulations, adherence to voluntary standards related to transportation, handling, and slaughter practices for terrestrial and aquatic animals	Full	34, 35

GRI Application Level Check

Global Reporting Initiative™

Statement
GRI Application Level Check

GRI hereby states that **Tassal Group Limited** has presented its report "Sustainability Report 2013" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level B.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 28 March 2014

GRI REPORT GRI CHECKED

Ásthildur Hjaltadóttir
Director Services
Global Reporting Initiative

The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. www.globalreporting.org

***Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 21 March 2014. GRI explicitly excludes the statement being applied to any later changes to such material.*

Production Notes

Sustainability Report Team

Linda Sams, Head of Sustainability, Tassal Group Ltd

Kaylene Little, Head of HR, QA and Safety, Tassal Group Ltd

Fiona Ewing, Community Engagement Officer, Tassal Group Ltd

Sustainability Report Advisory Committee (SRAC)
(Note: Whilst the SRAC have provided advice in the preparation of this report, they do not necessarily endorse its contents)

Global Reporting Initiative (GRI) Advisory and Editing

GRI advisory and editing provided by Marian Gruber, ZOOiD, Australia.
ZOOiD is a GRI Certified Training Partner and Organisational Stakeholder
(see: www.zooid.com.au).

Design

Design services provided by Digital Ink (see: www.digitalink.com.au).

Paper

Printed in Tasmania, this report uses Revive Laser stock.
Text printed on Revive Laser 100% Recycled, manufactured from FSC Recycled certified fibre. Cover printed on Revive Laser 70% Recycled, manufactured from FSC Mix certified fibre. Both are certified Carbon Neutral by the DCC&EE under the National Carbon Offset Standard (NCOS), Revive Laser also supports Landcare Australia. Made in Australia by an ISO 14001 certified mill. No chlorine bleaching occurs in the recycling process.

EMS ENVIRONMENTAL MANAGEMENT SYSTEMS · FOREST MANAGEMENT · ISO CERTIFICATION · RECYCLED CONTENT · ECO BLEACHING PROCESS · CO_2 MANUFACTURED CARBON NEUTRAL · RENEWABLE ENERGY · AUSTRALIAN MADE

Contact Us

If you have any comments or questions about information contained within the Tassal Sustainability Report 2013, please contact us at sustainability@tassal.com.au.

13077

tassal®

www.tassal.com.au