

SUSTAINABILITY REPORT 2016



1. About this Report

This report is Tassal's sixth annual sustainability report, and has been compiled using the Global Reporting Initiative's (GRI) G4 requirements for an 'In Accordance – Core' report. The report outlines the performance of material sustainability topics for the Tassal Group FY2016 (1st July 2015 to 30th June 2016), presented together with year on year data trends. Restatements of previous years' data are referred to throughout the report where applicable.

Report Boundary

The report boundary has significantly changed from our 2015 report. This year's report boundary additions include:

- De Costi Seafoods (a wholly owned subsidiary of Tassal Group based in Sydney, NSW)
- A second Salmon smolt hatchery at Rookwood Road, Tasmania and,
- Tassal's new fishmeal and fish oil (Salmon) processing facility in Triabunna, Tasmania.

Reporting on Material Topics and Applying the GRI Principles for Defining Report Content

A materiality assessment was not conducted for this reporting period, as, although there have been significant changes to the business as a result of the acquisition of De Costi Seafoods, we believe that the core topics identified in our FY2015 materiality assessment are still relevant across the business. Additional contextual information as a result of the business expansion is provided. Tassal's material topics are available in Appendix 1. The GRI's 'Principles for Defining Report Content' (Sustainability Context; Stakeholder Inclusiveness; Materiality and Completeness) were applied as follows:

Sustainability Context and Completeness: The materiality assessment conducted in FY2015 provided participants with an extensive list of economic, environmental and social GRI Aspects within a local, national and global context.



Tassal Group Limited

ACN 106 067 270
GPO Box 1645
Hobart, Tasmania
AUSTRALIA 7000
tassal@tassal.com.au
www.tassal.com.au

Stakeholder Inclusiveness: A comprehensive cross-departmental representation of Tassal's internal stakeholders participated in the FY2015 materiality assessment. While external stakeholders were not specifically contacted in the preparation of this report, Tassal's extensive Community Engagement program ensures that all key stakeholders are part of everyday communication activities, the results of which are published in this report.

Materiality: Materiality assessment conducted in FY2015.

Going forward, Tassal will conduct a materiality assessment in preparation for the FY2017 sustainability report and will continue this process every second year.

Data

As we work towards fully incorporating De Costi Seafoods into Tassal Group operations, we are progressively evolving the data that we include for sustainability report readers. In this transition phase, we include the following data:

Data	Tassal Group Salmon	De Costi Seafoods
Environmental	Marine Operations, Freshwater Hatcheries and Processing	N/A*
Animal Welfare	Marine Operations, Freshwater Hatcheries and Processing	N/A*
Human Resources	All	
Quality	All	
Safety (including contractors)	All	
Financial	All (complete financial statements for the Tassal Group are available in the Tassal Group Limited Annual Report 2016 www.tassal.com.au/annual-reports/).	

**De Costi environmental and animal welfare data were not available at the time of report compilation due to a streamlining of reporting. This data will be provided in the next reporting period.*

Assurance

External report assurance was not specifically sought for this report, however, a third party review of Tassal's reporting against the GRI G4 sustainability reporting framework was conducted by sustainability consultancy ZOOiD.

The following data is independently audited on an annual basis:

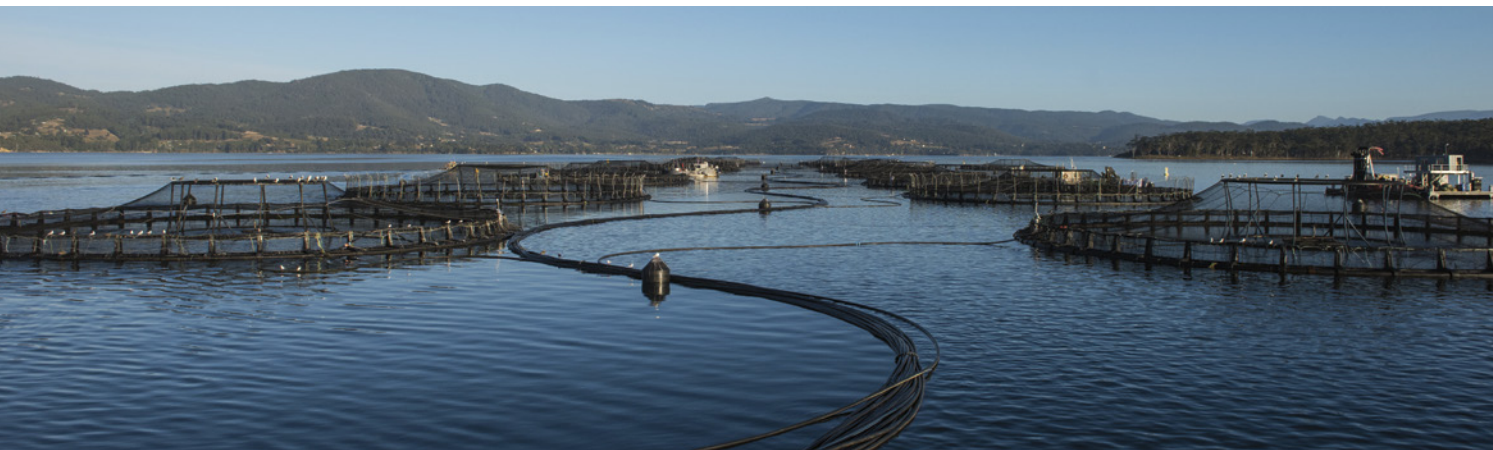
- Financial
- Food quality
- Salmon freshwater and marine operations (Aquaculture Stewardship Council (ASC) certification), and
- Safety management system (AS4801 and OHS AS 18001: 2007).

Contents

1. About this Report	2
2. Reflections	4
3. The Tassal Group	9
4. Strategy	14
5. Environment	31
6. Sustainable Salmon Feed	44
7. Animal Welfare	46
8. People and Communities	51
9. Workplace Health and Safety	61
10. Quality Assurance	66
11. Glossary	68
12. References	73
13. Appendix	74
14. GRI Content Index	77

2. Reflections

Message from Allan McCallum, Chairman and Mark Ryan, Managing Director & CEO



Traditionally, our company's annual sustainability report is published early in the calendar year and our leadership commentary is confined to the 12-month reporting period of the previous financial year. This year, however we are departing from that usual format as an acknowledgment of extraordinary circumstances in more recent months.

In sustainability terms, when we come to report on FY2017 early in 2018, we will be recording it as a most challenging period in our company's recent history.

Financial year 2016 has seen a significant change in Tasmania in the review and scrutiny of Salmon farming. By and large, the increased scrutiny has been positive and constructive with respect to the communities in which we operate, the many suppliers we deal with, the scientific community, Governments at all levels, our customers, shareholders and industry employees. As a business and industry, we have a lot to be proud of in terms of the sustainability and health benefits of Salmon as a global protein, world standard accreditations, high level of economic contribution to Tasmania, high level of innovation and continued investment in farming and processing in Australia.

At the core of our success, we owe it to our dedicated team at Tassal, who have worked tirelessly to deliver exceptional results despite the challenges experienced. We are immensely proud of all our people at Tassal and take this opportunity to thank them for their hard work.

Overall, Tassal farms the ocean to produce a high quality / healthy source of protein, leveraging its industry leading scientific know how, that is both sustainable and efficient in its production, respecting the resources of the earth and the wider society in which it operates.

We have delivered earnings growth in nine out of the past 10 years, and in the past five years our Total Shareholder Returns have been in the top quartile of the ASX 200. Consumption of Salmon has approximately doubled in Australia since 2004/05, which has been largely led by Tassal's focus on domestic per capita consumption initiatives, significant investment in marketing and education to consumers, and investment in Salmon value added products. Tassal has also delivered strong capital investment in hatchery and farming infrastructure, underpinning future growth. The outlook and demand for Salmon and Seafood protein is significant, both domestically

and internationally, and Tassal is well placed to continue to meet this growing need from consumers.

As Tassal and the Tasmanian Salmon industry seek to grow Salmon farming output, we acknowledge that this will bring a heightened level of stakeholder interest. Growth will also bring an element of risk to optimal growth and forecast plans, particularly as we grow into newer regions or increase the level of farming in existing regions. Ensuring social license and operational planning are co-dependent through strategic planning processes will be critical.

In late calendar year 2016, conditions at Macquarie Harbour required careful response and adaption. The challenges at Macquarie Harbour are complex. No one should be in any doubt as to how seriously we take the issues. We acknowledge a number of environmental non-compliances over the summer of 2016-17 at one of our marine leases in Macquarie Harbour. Thankfully, by autumn of 2017 a substantial recovery and a return to compliance was underway at Macquarie Harbour. This was the culmination of an incredible amount of work from Tassal and peak science and environmental experts who worked nimbly to ensure recovery solutions were in place.

A key learning we've already embraced is that the sustainability journey Tassal embarked on more than five years ago, is a journey of continuous improvement, with no room for complacency. Sometimes it can be one step forward and two steps back. Our company and our people must be both resilient and humble in the face of disappointments, as well as being jubilant when we have important wins.

We are determined to play our part to ensure the health of Macquarie Harbour. We must learn from this experience to improve future performance across our operations, and wherever fish are being farmed. What happened in Macquarie Harbour was unexpected and at odds with Tassal's record of sustainable production science-based processes and careful stewardship. After at least six years of consistently high compliance ratings that were of global leadership standard, this event demonstrated that environmental stewardship must remain a focus; every minute, every day.

While we always strive for 100% compliance across our operations, and on average achieve a Tasmanian industry-leading 95%-plus, recent events remind us that perfect scores are a very high bar indeed. Nonetheless we must try to do better in the future, and we will.

Beyond our dedicated team, we are very appreciative of the support we have received from key partners including our sustainability mentors at WWF-Australia, who have stood by our partnership in what has been a period of great public interest. WWF's local and global commitment to sustainable food production is an inspiration to Tassal and our team. We are proud to be guided by them and to provide support for their ongoing efforts to ensure that Salmon aquaculture in Tasmania leads the world on sustainability. Tassal and WWF-Australia have a lot more work to do together to excel at sustainability for Salmon and Seafood.

We also acknowledge the efforts of the industry's primary regulator, the Tasmanian EPA, which has been firm but fair. Firm in that when environmental conditions deteriorated unexpectedly in Macquarie Harbour it acted purposefully and decisively. Fair in that the EPA

recognised the importance of balancing environmental, economic and social factors in assessing sustainable farming for the waterway, which is also helping to protect jobs in the local community, while not impeding environmental recovery.

The managers and independent auditors from the Aquaculture Stewardship Council (ASC), the global leaders on sustainable farming of fish and Seafood, also have been firm and fair. Tassal signed up to the ASC's international accreditation program voluntarily several years ago, hoping to certify all our operations under the world's highest certification standards for aquaculture. Subsequently, in FY2015, Tassal became the first aquaculture company in the world to attain ASC certification across all its farms and facilities. Maintaining that record was always going to be a challenging commitment, yet we see no alternative than to always strive for world's best performance.

The fact that the EPA and our international auditors at the ASC both identified the issues we encountered in Macquarie Harbour via their science-based, non-compliance findings is evidence that the system works. Each of them placed formal and public pressure on Tassal to respond with remedies. It's been difficult, but we know being held to these highest standards provides assurance to the communities in which we operate and to the consumers who buy and eat our Salmon.

Whatever we do as a company and an industry, we accept that ongoing growth of the fish farming sector in Tasmania means that we will face more public scrutiny and in some situations community concerns. We farm on leases in public waterways, and robust public debate about our industry and its performance is both legitimate and desirable.

Tassal was fully aware that the public expected more and that is why it set about achieving ASC certification several years ago. We remain adamant that the best standard is always the one with the most independent processes, the best international recognition and the greatest community and consumer acceptance. For aquaculture, that is unquestionably ASC and Tassal won't support any

dilution of its quality or replacement with any lesser version. In fact, we support the ASC level being the benchmark for all Salmon aquaculture in Tasmania, policed independently by the EPA.

Extending beyond Salmon, our team has pleasingly integrated the major Seafood processing and distribution business De Costi into the Tassal Group. Having purchased De Costi in 2015, this is the first year in which the Seafood business has been included in our annual Sustainability Report. We are focused on ensuring that the Seafood operations, based at the Lidcombe facility in Sydney, match the sustainability standards we have set for Salmon. Achieving this is a learning experience for our team, also providing an expanded focus for our work with WWF Australia, and our voluntary engagement with the ASC and in addition the Marine Stewardship Council (MSC) which leads sustainability certification for wild-caught fisheries internationally.

Finally, we approach the next year and future years with great optimism for Tassal and our industry, despite the challenges. Our adaptive sustainability journey includes building our focus on climate change, both in terms of mitigating its impacts on our operations and being part of the solution by reducing emissions and producing a lower-carbon food protein option to land-based meat products. We will do more on the ground in Tasmania at our sites and in the communities where we operate, and more at a higher level including integrating the UN Sustainable Development Goals across our business. Our employees are driven by a pride in our activities that have supported our history of successful achievements and sustainable growth.



Allan McCallum



Mark Ryan



Message from Linda Sams, Head of Sustainability



I grew up farming cows, pigs and chickens and, like most farmers, the people who farm fish care deeply for the wellbeing of our animals and environment. We also are proud of the jobs we do and passionate about the industry we work in. Our paddocks are sea pens that share Tasmania's public working waterways with other people and industries, and with nature itself, and all of us benefit from a healthy marine environment.

Fish farmers need a healthy marine environment to raise the best stock; and our quality-conscious end consumers want ethical and ecologically safe production as well as healthiness, convenience and affordability.

As a career fish farmer, first in the Canadian province of British Columbia

and for most of the past decade in Tasmania after choosing to make this amazing place home, I've devoted my professional life to making our industry sustainable. Aquaculture done our way is good for local communities and safe for the environment that these communities call home.

We've learnt so much in the three decades since Tasmania's aquaculture pioneers started farming Atlantic Salmon in the 1980s, but we still have much more to learn and improvements to make. Where are the best places to grow out the stock? How can we adapt to climate change impacts like rising sea-water temperatures? Who should we listen to about the science and processes that can sustainably deliver successful fish crops while preserving the marine environment?

How do we maintain community confidence in our industry? In summary, how can we continuously get better at farming fish? Answering these questions is no trivial thing.

The essence of sustainable development is that today's generations meet their needs without prejudicing future generations' ability to meet theirs, which includes preserving ecological integrity.

Perhaps the most critical need for people now, and into the future, is food. Sustainable food, including food with a low-carbon profile; and with superfood characteristics like natural omega-3s, which are headline features of farmed Atlantic Salmon. Sustainable Seafood that won't lead to further collapses in the world's stressed natural fisheries. The time has come for consumers to

become more educated about what they eat. Find out where and how the Salmon and Seafood they buy is farmed and/or harvested, whether there are best practice environmental and social protocols in place, and use this knowledge to make a well informed decision.

Transparency in operational practices and reporting is key to driving accountability and continuing improvement. Sometimes scrutiny can be uncomfortable but it is the way modern business should operate. Tassal has led the way in Australian Seafood in terms of corporate, social and environmental reporting and certification. This year we were benchmarked as the number one Seafood company in the world in the 2016 Seafood Intelligence's Benchmarking Report of the World's Top 100 Seafood Firms' Sustainability Reporting & Transparency. We were also benchmarked by Seafood Intelligence as the world's top Salmon and Trout farming company in corporate social and environmental reporting. We are committed to further improving our communications in this area.

We have also successfully maintained our Aquaculture Stewardship Council certification across our operations during this time period. When we saw years ago that nothing less than a commitment to world's best practice on sustainability would suffice, we set out to achieve the top accreditation at a global level. Maintaining this level of standard is challenging and does open us up for further scrutiny and criticism, which can be confronting. However it is this criticism and scrutiny that will drive a better performing industry over time.

Quality science needs to permeate every aspect of aquaculture, but we also know that science can be fallible. Nonetheless, scientific modelling along with baseline

studies remain the best tools to decide where to farm, at what scale, and under what regulatory conditions and process refinements.

Science is critical to how we can adapt our fish stock and our farming practices to address climate change; to introduce restorative or compensatory processes, such as seaweed farming to take nitrogen out of the seawater, and trials aimed at controlling invasive sea urchins; and, to develop new cage designs for farming in high-energy offshore sites, and improved netting solutions to hold out hungry seals.

Farmed Atlantic Salmon from Tasmania already is Australia's number one most-purchased Seafood, and Salmon aquaculture is one of our state's anchor industries. It is a given that further growth needs to happen in ways that won't cause any lasting harm to the environment, and that will add value to communities. Achieving this requires ever-better science, relentless adaptation and an expanding mix of partnerships.

A core understanding of the ambitious but globally vital United Nations Sustainable Development Goals, which Tassal is embracing wherever applicable to our industry — is that achieving them will require the partnership of governments, private sector, civil society and citizens, all working together.

We listen to our critics as well as our friends, and we will work with them all. We are learning a lot from every additional year of farming, we do heed the lessons and we are improving.



Linda Sams



Senate Inquiry into the Regulation of the fin-fish aquaculture industry in Tasmania

This reporting year offered Tassal a unique opportunity to work with the Tasmanian Salmon industry to tell our sustainability story. Working collaboratively with the Salmon industry, Tassal provided a significant contribution to the Tasmanian Salmon Growers Association (TSGA) submission to the Tasmanian Senate's Standing Committee on Environment and Communications Inquiry into the 'Regulation of the fin-fish aquaculture industry in Tasmania'. The specific Terms of Reference were:

- Adequacy and availability of data on waterway health
- Impact on waterway health, including to threatened and endangered species
- Adequacy of current environmental planning and regulatory mechanisms
- Interaction of state and federal laws and regulation, and
- Economic impacts and employment profile of the industry.

Recommendations from the Inquiry focused on the Tasmanian Government's statutory obligations, planning and monitoring and compliance of the sector. Tassal's actions in response to the Senate recommendations can be viewed in Appendix 2.

The Inquiry provided a valuable learning experience for our company and our industry. We learnt that public scrutiny of our industry is a positive motivator to share our story, including Tassal's position as a leader in best practice aquaculture production on the key topics outlined by the Senate Committee:

- The efforts by the industry to actively engage with stakeholders and the community
- The Tasmanian Government's comprehensive and robust



- monitoring regime on which to base its management of the fin-fish aquaculture industry, which is comparable to world's best practice
- Adaptive management, must be based on sound data collection and analytical regimes and facilitate the effective incorporation of identified improvements into management practices
- Scientists and consultants who undertake research and monitoring of aquaculture work to the highest ethical standards
- The importance of ensuring the health of Tasmania's waterways in areas where fin-fish farming is undertaken
- The efforts of the Tasmanian fin-fish industry to proactively manage its interactions with threatened and endangered species and the introduction of management programs and changes to fish farm infrastructure to limit bird entanglements
- The development and implementation of new pen and net infrastructure is the most effective solution for the fin-fish industry to deal with seals, as it reduces the industry's reliance on relocating problem seals
- The importance of the health of the marine environment in Macquarie Harbour given that it is only one of two stratified water systems in Tasmania, its proximity to the Tasmanian Wilderness World Heritage Area and as a habitat for the endangered Maugean skate
- Industry's commitment to ensuring the ongoing health of Macquarie Harbour, including timely and appropriate response to issues related to fluctuations of dissolved oxygen in the harbour
- Ongoing research and adaption of farming practices will ensure that the environmental impacts on the Tasmanian Wilderness World Heritage Area are not significant, and,
- The important contribution of the fin-fish aquaculture industry to the economic prosperity of Tasmania.

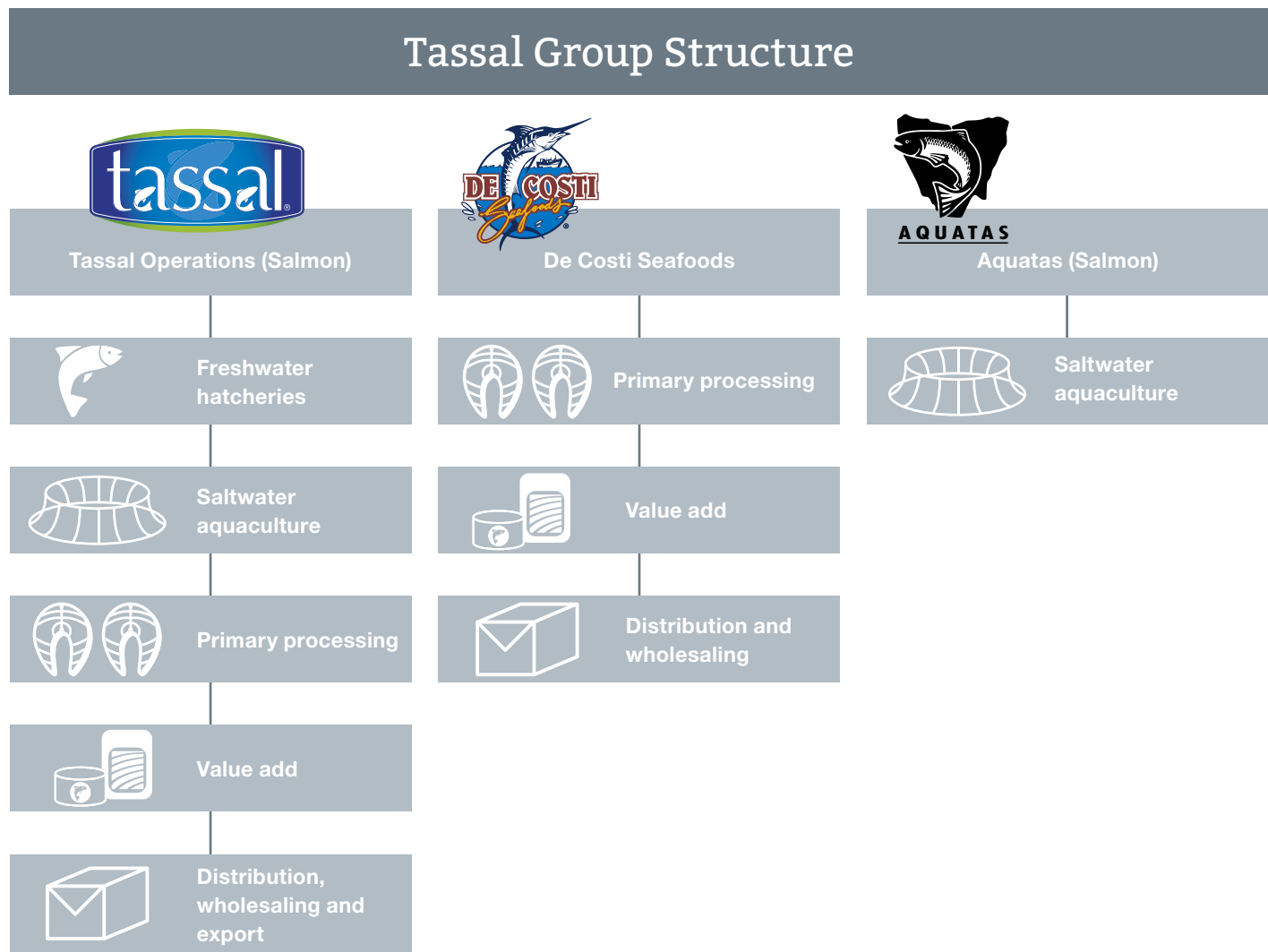
Reference: http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Fin-Fish/Submissions - submission # 33.

3. The Tassal Group

For over 30 years, Tassal has been bringing delicious, fresh and healthy Tasmanian Atlantic Salmon from our cool southern waters to tables around the country. Today, Tassal is Australia’s leader in Salmon and Seafood.

Since 1986, with the opening of our first marine sites, our company has transitioned from a privately owned operation to a public company listed on the Australian Stock Exchange (ASX Code: TGR). Our controlled entities are Tassal Operations Pty Ltd, Aquatas Pty Ltd and De Costi Seafoods Pty Ltd.

The Tassal Group is located in Australia, and head office in Hobart, Tasmania.



Transparency and Accountability



Tassal aims to achieve best practice across all operations and is committed to maintaining high standards of corporate governance to operate in a unique environment, effectively manage risk, and enhance corporate responsibility. Tassal is committed to the ASX Corporate Governance Principles and Recommendations.

We take the view that governance is not just a matter for the Board and management, and that a good governance culture should be embedded across the business. Tassal is focused on achieving a whole of organisation approach to governance and is working towards the Governance Institute of Australia's guidelines on whole of organisation governance focusing on transparency, accountability, stewardship and integrity.

Reflective of the scale, nature and complexity of Tassal's operations, we have in place a detailed corporate governance framework under which the company operates. This framework

outlines Tassal's commitment to act ethically, openly, honestly and fairly and allows us to manage risk in line with organisational and strategic objectives.

Our commitment to transparency, accountability, stewardship and integrity is highlighted through our sustainability reporting, certification to the Aquaculture Stewardship Council (ASC), real time provision of data through our ASC Dashboard, online publication of ASC Audit Reports, and, online publication of Environmental Impact Statements (EIS) when seeking lease approvals or amendments.

One of the key aspects that makes ASC certification stand out from other schemes is its third party stakeholder engagement and transparency of audit reports.

Furthermore, our focus on minimising sustainability risk through implementation of our enterprise wide Risk Management System, aligned with the precautionary approach, ensures that we are accountable for each decision that we make.

Tassal is an innovative company operating in an ever changing environment. Tassal invests heavily in research and we rely on this as well as external research to ensure compliance, accountability and improvement throughout our operations. Reliance on research and scientific evidence establishes accountability and diligence in our decision making and fosters a culture of good governance.

Tassal has a strong history and focus on compliance across our operations and we continue to emphasise the importance of governance and compliance throughout our business.

Tassal's Corporate Governance policies can be viewed at: <http://www.tassal.com.au/governance-policies/>

About Tassal – A Snapshot

Financial Performance (\$Am)

Statutory Results	2016	2015		Change
Revenue	430.92	309.79	↑	39.1%
EBITDA	97.29	93.97	↑	3.5%
EBIT	76.28	75.60	↑	0.9%
NPAT	48.49	49.99	↓	(3.0%)
Operating Results				
Operating EBITDA	82.18	72.59	↑	13.2%
Operating EBIT	61.17	54.22	↑	12.8%
Operating NPAT	37.92	35.03	↑	8.2%
Operating cashflow	50.22	42.70	↑	17.6%
Final dividend - cps	7.50	7.00	↑	7.1%
Total dividend - cps	15.00	14.00	↑	7.1%
Gearing Ratio	33.5%	17.6%		
Funding Ratio	44.6%	34.9%		

• Increased gearing ratio and funding ratio due to De Costi Seafoods acquisition funding

• SGARA (post tax) was \$10.57m in FY16 (FY15: \$14.97)

*A comprehensive overview of financial data is available in the Tassal Group Limited Annual Report 2016: <http://www.tassal.com.au/annual-reports/>.

Our Brands



Branded vs unbranded volume and revenue*

	FY15		FY16	
	Volume	Revenue	Volume	Revenue
Unbranded	70%	65%	66%	62%
Branded	30%	35%	34%	38%

*Salmon volume and revenue only

Network

- 3 directly controlled Salmon hatcheries and a majority ownership of industry hatchery Salmon Enterprises of Tasmania Pty Ltd (Saltas)
- 4 diverse marine farming zones
- 5 processing facilities
- 2 owned retail outlets
- 3,375 points of retail presence



During the reporting year, our six marine operations regions were restructured into four marine zones which provides us with operational, logistical and biosecurity benefits and allows us to continue to deliver on our strategic objectives. The previous Dover and Huon regions have merged to become the Southern Zone and the North West Bay and Bruny regions have merged to become the Channel Zone.

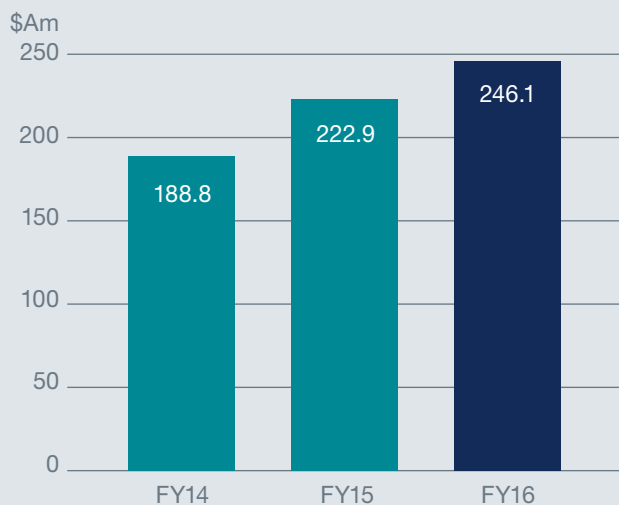


Salmon

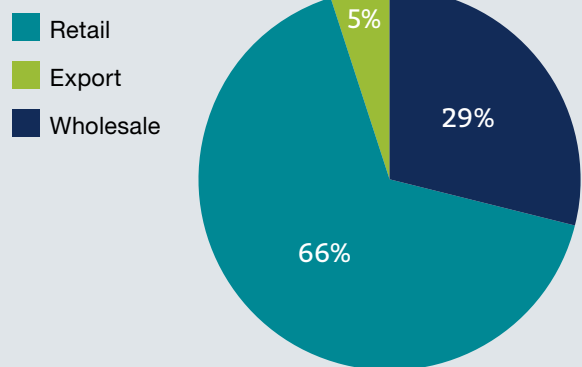
Tassal Salmon species of Atlantic Salmon is *Salmo salar*.

All Tassal's broodstock are kept at freshwater flow through facilities in the highlands of Tasmania. Young fish are reared up to smoltification at our flow through or recirculation hatcheries. Once transported to our marine sites, all our Salmon are housed in polar circle sea cages.

Biological Assets



Our Markets



Markets include Tassal and De Costi Salmon products only

Harvest Tonnage

25,532 hog tonnes 

Fish in sea water

9,935,586 fish 

Fish biomass in sea water

15,614 live weight tonnes 

Combined processing output

25,577 hog tonnes  

Fish Meal and Fish Oil

2,066,760 kg 

*All asset, harvest, fish, biomass, fish meal and fish oil is Tassal only data as it refers specifically to the farming of fish, in which the De Costi business is not involved. Combined processing output includes both Tassal and De Costi data specifically for Salmon processing as this is an activity of the De Costi business.

4. Strategy



Tassal is a global pioneer in sustainable Salmon production. We believe that a key role for us is as a custodian of the marine environment, and we accept that environmentally and socially responsible, sustainable production is a precondition for the company's long term development, growth and acceptance by the broader community. Sustainability at Tassal moves far beyond our commitment to environmental sustainability.

Tassal farms the ocean to produce a high quality and healthy source of protein, leveraging its industry leading scientific know-how that is both sustainable and efficient in its production, respecting the resources of the earth and the wider society in which it operates. Specifically, we:

- Leverage the scale of our vertically integrated supply chain to optimise value and ensure product quality and freshness
- Access the market via multiple channels (i.e. direct, retail, wholesale and export) to maximise penetration and stability of earnings

- Expand customer offers to continually meet more of their Seafood requirements.

Tassal strives to generate and maintain sustainable margins and returns, however, external circumstances can dictate a requirement to rebalance the sales mix within our sales channels to ensure we optimise the returns generated.

In the reporting period we experienced supply restrictions due to warm summer and autumn water temperatures slowing the growth of our fish. Reduced supply in the Australian market saw wholesale prices increase, at the same time as export prices also increased as a result of global supply constraints. We were unable to adjust retail prices to accommodate for the increased cost of growing fish and as a result, when these fresh Salmon supply agreements came up for renewal, and with an eye to ensuring we optimised returns, we took a view that if we were unable to generate a minimum return level from fixed price agreements, we would withdraw and realign our sales mix in a managed and sustainable way to sell more into the Australian wholesale

market and the export market where more attractive returns could be achieved.

Overall, Salmon performance and returns over FY2016 were in line with our expectations given the challenging operating environment that saw the warmest temperature profile on record. The warm water temperature continued for an extended period of time and in turn, resulted in higher operating costs and lower growth in overall Salmon biomass.

Tassal's strategic shift from a purely vertically integrated Salmon company to a Salmon and Seafood company has opened up strong growth opportunities. The acquisition and successful integration of De Costi Seafoods has positioned Tassal as the market leader in Salmon and Seafood in Australia.

In line with Tassal's Strategic Plan, the overarching focus for FY2017 is to continue to increase domestic Salmon and Seafood consumption while ensuring that operational and asset returns are maximised.

Feeding the Future with Salmon and Seafood

The world's oceans are at risk of collapse, with significant implications for fishing industries, food security and marine biodiversity (CPD, 2014). As the world population grows, so too does the demand for fish.

According to the United Nation's Food and Agricultural Organization (FAO), the share of fish stocks within biologically sustainable levels has trended downwards by 21% in the period 1974 to 2013, when 68.6% of fish stocks were identified as fished at biologically unsustainable levels. Of all fish stocks assessed, 58.1% were fully fished by 2013 (FAO, 2016).

With global demand for Seafood increasing, Salmon aquaculture, together with the sustainable and responsible sourcing of Seafood, will provide the means to meet this growing demand while reducing pressure on wild capture fisheries.

Tassal's purchase of De Costi Seafoods in FY2016 has created many exciting new opportunities within the broader Seafood sector, in Australia and beyond. As a result of this acquisition, we now provide customers and consumers with a large variety of Seafood species under the De Costi brand, in addition to Tassal's traditional Salmon products.

Along with these opportunities comes great responsibility and expectation by our stakeholders that Tassal, in addition to being Australia's leader in sustainably grown Salmon, ensures that Seafood supply is sourced from locations that have minimal environmental and social impact. Strong leadership will be required by us to ensure that the long-term transformation of the Australian Seafood sector to one that is truly sustainable.



Broader Impacts of Aquaculture

We measure the benefit, impact and value of sustainability by working closely with all our departments, especially production. There are many indirect benefits of our sustainability program that are difficult to quantify. However, many of these benefits can be translated to risk reduction, social license to operate, improved market share, employee satisfaction and retention and improved operational practices.

In Tasmania today, most of Tasmania's seafood production comes from the aquaculture sector, accounting for 75% of its total value, and 86% in volume terms. Farmed salmon is considered to be the most significant contributor to these figures. The significance of Tasmania's farmed salmon industry to Australia's national seafood production is also reflected in the salmon industry's contribution to strengthening the social and economic structure in regional communities throughout Tasmania. Continued growth of the industry is also an important aspect to renewed optimism in the State's economy, and this process of amendment through regulation ensures that this growth is progressed in a measured and sustainable manner.

Tassal and the Sustainable Development Goals

The release of the United Nation's Sustainable Development Goals (SDGs), as part of the 2030 Agenda for Sustainable Development has marked a watershed moment in corporate sustainability. A clear signal has been sent to global markets and all industry sectors, that, in order to achieve a sustainable future, we must all work together and commit to a climate resilient and socially responsible way of doing business.

The SDGs are a transformational, ambitious and important step towards sustainable development, yet we recognise there remain key challenges to implementation, including a practical understanding of just how to implement change.

Tassal is committed to sustainable development, and considerable strategic and operational sustainability outcomes have been achieved through Aquaculture Stewardship Certification (ASC) and reporting to the Global Reporting Initiative framework. We see the SDGs as an exciting opportunity for us to further frame Tassal's long term goals and

partnerships that will make an important contribution to achieving sustainable development in the aquaculture sector.

The Food and Agriculture Organization (FAO) notes that several of the 17 SDGs are directly relevant to the aquaculture and fisheries sector and identifies Goal 14: 'Life Below Water'- *Conserve and sustainably use the oceans, seas and marine resources for sustainable development* as key (FAO, 2016). Goal 2: 'Zero Hunger'- *End hunger, achieve food security and improved nutrition and promote sustainable agriculture* is particularly relevant also as Tassal works towards feeding the future with Salmon and Seafood.

In 2016, Tassal undertook a project to examine the SDGs (understanding that all goals are intrinsically linked), and identify (1) which goals Tassal could identify as areas of considerable current contribution, and (2) which goals could be contributed to further through strategic planning and action.

Throughout a series of meetings, members of our environment and sustainability team were introduced to the SDGs, specific goals were selected that

represented core and future lines of the business, a literature review was conducted to map the SDGs across business documentation, and a qualitative research methodology consisting of interview questions were presented to high level representatives up and downstream of the business.

The outcomes of the process was a recognition that Goals 2, 3 and 14 are already an important element of Tassal's current sustainability strategies and practices, recognising that considerable work has already been undertaken in these areas, although reporting specifically to the targets underpinning each goal will need to be incorporated into our reporting processes.

The project also helped to produce a high level commitment into incorporating the SDGs into core strategies and plans both within Tassal and to support the uptake of the SDG's more broadly in industry.

Future focus will consider Tassal's active contribution to the remainder of relevant SDGs.

Current contribution to the SDG			SDGs for future consideration to integrate into strategy		
 <p>2 ZERO HUNGER</p>	 <p>3 GOOD HEALTH AND WELL-BEING</p>	 <p>14 LIFE BELOW WATER</p>	 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	 <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>
			 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	 <p>13 CLIMATE ACTION</p>	 <p>17 PARTNERSHIPS FOR THE GOALS</p>

Sustainable & Responsible Salmon and Seafood

Sustainable and responsibly grown and sourced Salmon and Seafood is at the core of the Tassal business. Our commitment to all customers and consumers is that our Salmon and Seafood offer is of the best quality and freshness, with the lowest environmental and social impact.

With our entry into the Seafood market, the development of the De Costi Sustainable Seafood Strategy is a key component of Tassal's overarching sustainability strategy and is a focus of our renewed partnership with WWF-Australia. Performance indicators under this new partnership agreement support Tassal's objective to design and implement a road map for ecologically responsible production and sourcing across the entire supply chain.

We recognise that the pathway toward a complete sustainable and responsible Seafood offer is a journey that will require adjustment, and an inevitable transition away from high risk Seafood products. Our ambition is for the De Costi Seafood

range to represent a 100% sustainable and responsible Seafood offer to all customers by 2020.

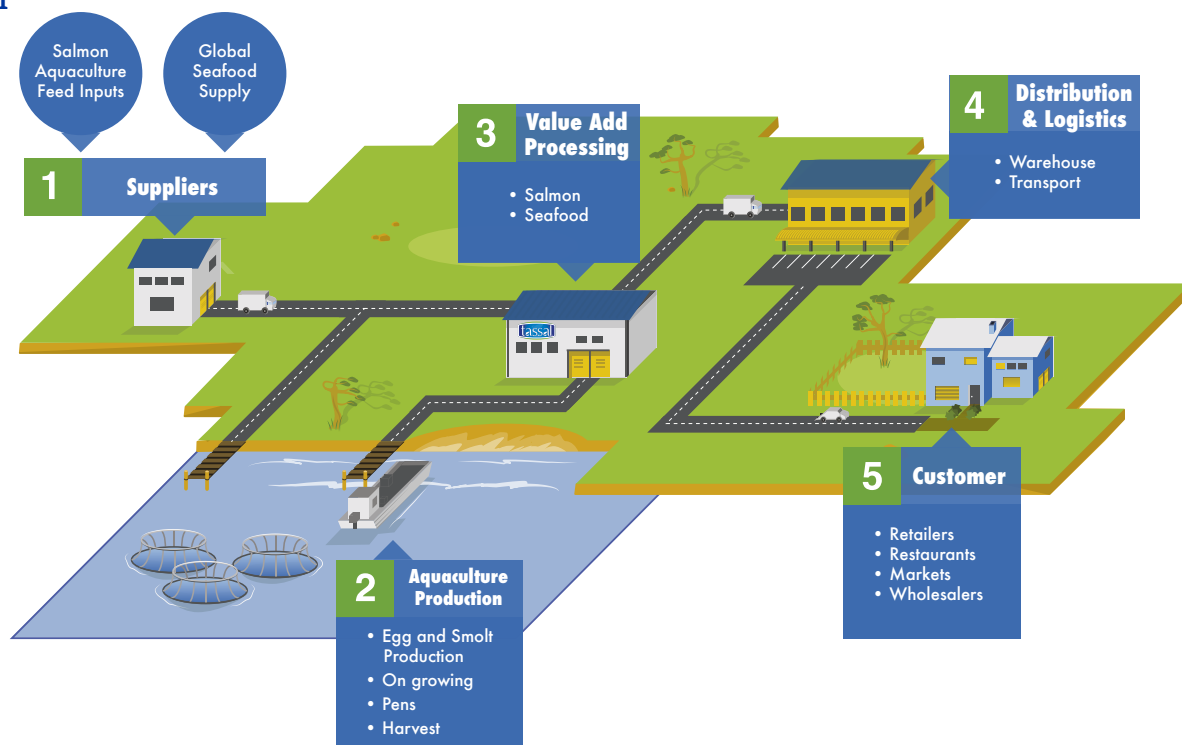
The first step in Tassal's journey towards becoming Australia's leader in the supply of sustainably sourced Seafood, has been to develop a greater understanding of our sustainability baseline for all Seafood products within each supply chain. Core to this is the development of robust traceability systems to firmly understand the product source of all Seafood species that Tassal will now market and supply under the De Costi brand. Such a system will also help to support grass roots producers in the industry and enable them to tell the story of the provenance of their Seafood.

Ensuring a robust knowledge of the environmental, social and economic implications of sourcing, growing and harvesting Tassal products, including the De Costi Seafood range throughout the entire value chain, is critical for us to maintain our position as a leader in the Salmon and Seafood industry.

Supplier Risk Assessment

Our key supplier groups cover feed, ingredients, packaging, logistics, warehousing and third party processing. While we work to incorporate robust supplier risk assessment systems for our De Costi Seafood range, Tassal's Quality Assurance department works closely with all existing and new suppliers for our traditional Salmon products to assure that all (100%) have management systems in place and relevant policies in place which are appropriate to the supply. These may include quality and food safety, the environment, sustainability, workplace health and safety, ethical sourcing and/ or social responsibility, discrimination and harassment and compliance with labour laws. Our supplier program is risk based, and supplier risk ratings are reviewed annually. Records of relevant third party certifications which may be held by suppliers are maintained on an ongoing basis and supplier questionnaires are re-sent at maximum three year intervals.

Supply Chain



Third Party Certification

Tassal considers the Aquaculture Stewardship Council (ASC) and Marine Stewardship Council (MSC) certifications to be the 'gold standard' in well managed, environmentally and socially responsible, and sustainable Salmon and Seafood products.

Aquaculture Stewardship Council (ASC) Certification for Salmon

Tassal was the first company globally to achieve 100% Aquaculture Stewardship Council (ASC) certification for all Salmon farming operations. This achievement underlines our dedication to responsible aquaculture and allows us to provide customers and consumers with an assurance that they are purchasing Salmon from farms that stringently manage their impacts on the environment and communities.

The ASC Standards were created to address the most pressing environmental and social impacts of aquaculture. The standards are developed in line with the United Nations Food and Agriculture Organization (FAO) Technical Guidelines Aquaculture Certification. The ASC is the only aquaculture certification scheme to be recognised as a full member of the ISEAL Alliance, which requires inclusive and transparent standard setting.

The Certification Process

The ASC is the standard holder, and is not involved in the certification process. A third party verification system is used and all organisations seeking to become ASC certified must be audited by qualified external and independent assessors.

Key Organisations

Auditors, and the Conformity Assessment Bodies (CAB) that they are employed by, are assessed and monitored by the Accreditation Services International (ASI) to ensure they have the skills and processes in place to undertake independent assessments to evaluate whether farms and those seeking chain of custody certification meet the ASC standard.

The ASC assessment procedures are independent, transparent and allow for a high level of stakeholder engagement. The criteria for certification are robust and require best practice performance including record keeping, measurements and clear parameters for important indicators of environmental and social performance.

Audit scope

The unit of certification for the Aquaculture Stewardship Council (ASC) Salmon standard is the marine farming lease from which fish are harvested. This is what we call a 'grow out lease' and is where our fish over 1.5kg are kept. During the reporting period Tassal held ASC certificates for the 10 grow out leases that covers Tassal's entire production across the four Marine Farming Zones. Although smolt leases, where our fish under 1.5kg are grown, are not listed on the ASC certificate, they are still captured in the assessment process.

ASC audits are comprehensive and look at our entire operation. It is not just our marine farms that the auditors assess, but our hatcheries, Workplace Health and Safety system, Human Resources and Chain of Custody from harvest through to distribution and sale. Community and stakeholder engagement is also a

requirement of each audit, with feedback sought through community meetings and written submissions. Our employees work hard to maintain our compliance against the 152 individual compliance criteria within the standard. We are continuously making improvements, and preparation for each audit is ongoing.

Variance Requests

Tassal currently has two approved variance requests under the ASC standard. One is related to single year class stocking and another for water quality and benthic monitoring methodologies.

Certification for the De Costi Seafood Range

The De Costi Seafood range consists of a large variety of species from diverse sources across the globe. Due to this diversity, and the currently limited number of certified fisheries or farms worldwide, the majority of stock is not sourced from certified fisheries or farms, nor from fisheries or farms that have entered into a Fisheries Improvement Project (FIP) or Aquaculture Improvement Project (AIP).

As a result of this, Tassal has started to carry out sustainability assessments for each individual species currently being sourced for the De Costi Seafood range. An independent third party, FishListic, has been engaged to conduct these assessments using the Marine Stewardship Council (MSC) scientific assessment methodology for wild caught species and the Aquaculture Stewardship Council (ASC) methodology for farmed species. To date, species that cover over 40% of De Costi sales (excluding salmon) have been independently assessed. In the next reporting period we hope to have completed independent assessments of species that cover 60-70% of sales.

Tassal will preferentially source MSC and ASC certified product as reasonably practical, and, if available, make certified products the first choice when sourcing new product lines.

For De Costi farmed aquaculture products, credible certification schemes such as GLOBALG.A.P. and Best Aquaculture Practice (BAP) will be used as stepping stones toward ASC certification. Tassal will accept products that are certified by these schemes. There are no such stepping stone schemes for wild capture fisheries.

The De Costi range of Seafood currently has limitations (i.e. diversity and availability) regarding sourcing and securing supply from MSC or ASC certified primary producers.

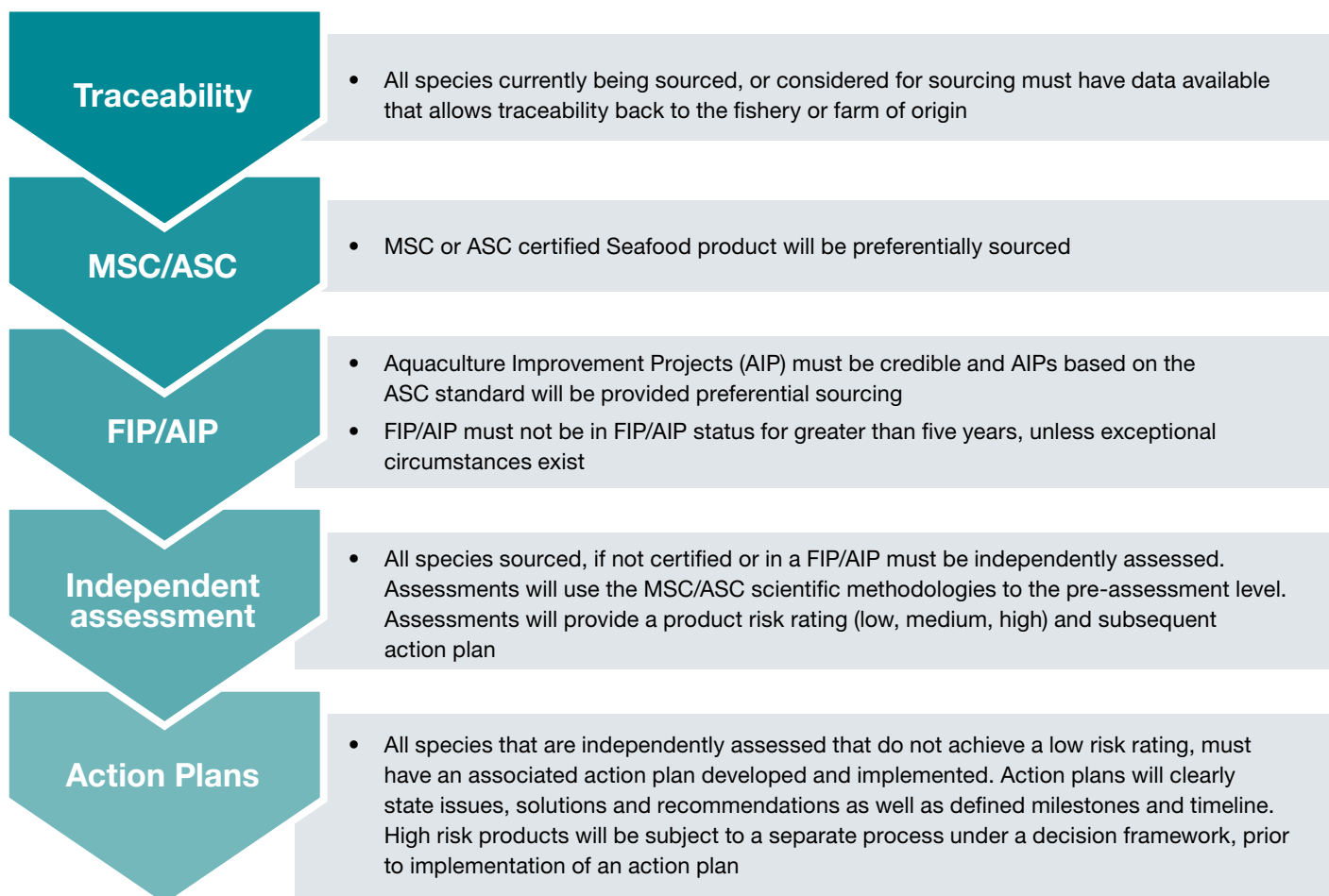


Partnering with FishListic

FishListic is a sustainable Seafood consultancy that provides Tassal with a science-based solutions orientated approach for assessment of wild capture fisheries and aquaculture operations. We have partnered with FishListic on our sustainability journey to assist with our Seafood strategy development, mitigate risks and to support transformation of the Seafood industry. FishListic provides both value and opportunity in partnership with industry and key stakeholders, with realistic strategies to ensure the sustainable future of marine resources.

For many fisheries or farms, particularly in the developing world and small scale operators, the resources and costs associated with such certification systems can be demanding. Tassal will support those operators that have entered into a journey toward sustainability and responsible harvesting through either a credible FIP or AIP that is audited and meets the required milestones. Each FIP and AIP from which we source will be independently assessed by FishListic.

To ensure our progress towards a sustainable Seafood offering, all current and future sourcing will follow a stepped process:



Chain of Custody

Tassal's internal Integrated Management System (TIMS) consists of policies and procedures that ensure that only products originating from Aquaculture Stewardship Council (ASC) or Marine Stewardship Council (MSC) certified sources are labelled with the ASC or MSC claim. The ASC and MSC Chain of Custody procedures comply with the requirements of the MSC (ASC) Chain of Custody Standard. The MSC Chain of Custody Standard is a traceability and segregation standard that is applicable to the full supply chain from a certified fishery or farm to final sale. Each company in the supply chain that handles or sells an MSC or ASC certified product must have a valid MSC/ASC Chain of Custody certificate. This assures customers and consumers that MSC/ASC labelled Seafood comes from a certified sustainable fishery. All (100%) of Tassal's processing facilities have ASC Chain of Custody certification for farmed Atlantic Salmon products. Our De Costi processing facility has MSC Chain of Custody certification for Hoki and Blue Grenadier products.



Certifications*

Certification	Auditing body	Coverage	Main Purpose	Audit Frequency
Quality				
Export	Department of Agriculture (formerly AQIS)	<ul style="list-style-type: none"> • Dover • Huonville • Margate • Harvest boat- as catcher boat only 	Export compliance	<ul style="list-style-type: none"> • Dependant on site rating and previous audit results - between six and nine months • All facilities currently have an A rating
ISO 9001:2008	ISO standard was voluntarily discontinued from all sites, including De Costi in 2016. As other standards, such as HACCP, SQF and other customer standards have evolved over the past few years and now contain requirements comparable to ISO 9001, it was deemed that there was limited value in continuing to be certified to this standard			
HACCP	SGS and BSI (during 2016 we changed certification bodies from SGS to BSI)	<ul style="list-style-type: none"> • Dover • Huonville • Margate • De Costi 	International Standard	Annual recertification/six monthly surveillance (processing sites only)
SQF Code (Safe Quality Food) Level 3	SGS and BSI	<ul style="list-style-type: none"> • Huonville • Margate • De Costi 	International Standard/ Customer requirement	<ul style="list-style-type: none"> • Annual recertification for Huonville and Margate • Six monthly surveillance for De Costi
WSE (formerly WQA)	SGS and BSI	<ul style="list-style-type: none"> • Huonville • Margate • De Costi 	Customer requirement	Six monthly
Aldi	SGS and BSI	<ul style="list-style-type: none"> • De Costi 	Customer requirement	Six monthly
Coles (CFMSR or CSR)	BSI or Coles	<ul style="list-style-type: none"> • Margate - CFMSR • De Costi - CSR 	Customer requirement	Annual
ASC/MSC Chain of Custody	SCS Global Services	<ul style="list-style-type: none"> • Dover • Margate • Huonville • Petuna • George Town Seafoods • Huon Valley Seafoods • De Costi – ASC and MSC 	ASC/MSC traceability for Chain of Custody	3 year recertification/annual surveillance
HALAL	Halal Australia	<ul style="list-style-type: none"> • Huonville • Margate All products	Sell product with Halal approval	Annual audit
KOSHER	Kosher Australia	<ul style="list-style-type: none"> • Dover • Huonville • Margate Most products	Sell product with Kosher approval	Annual audit
ARA Code of Practice	AUS-MEAT Ltd	Triabunna	Certification to Australian Rendering Standard	Annual audit
Safety				
AS 4801	TQCS	All sites	Australian standard	Annual audit rotation basis/three yearly recertification
OHS AS 18001:2007	TQCS	All sites	International standard	Annual audit rotation basis/three yearly recertification
Environmental				
Aquaculture Stewardship Council (ASC)	SCS Global Services	Marine Operations	International standard	Certification for three years with annual surveillance
Best Aquaculture Practices (BAP)	In 2012 Tassal implemented Best Aquaculture Practices (BAP) certification across all operations. In 2013, we conducted a pre-assessment against the Aquaculture Stewardship Council (ASC) standard, and following this, conducted full ASC certification of our marine operations. We maintained both ASC and BAP certification for some time, however in late 2015 made the decision to only maintain ASC for our marine operations, and did not continue BAP certification of our Salmon.			

*All (100%) of products are third party certified



Climate Change

Climate change and a subsequent increase in water temperature may create operational issues for Salmon farming, and poses a significant risk for the health and welfare of farmed fish if mitigation measures are not in place. This in turn may negatively impact our volume of stock, and ability to take stock to market.

A report by the Tasmanian Aquaculture and Fisheries Institute and CSIRO Climate Adaptation Flagship predicts that average temperatures in southern Tasmanian waters could increase by between 1°C to 3°C by 2030 (Battaglene *et al.*, 2008).

To put this predicted sea temperature rise into an operational perspective, Tassal works with an annual fluctuation in temperature of over 10°C. We have developed mitigation strategies and contingencies to cope with daily temperature fluctuation, temperature variation between farming zones and vertical temperature stratification within the water column.

The transfer of cooler water from moderate depths of between five to eight metres with air (also known as venturation), is just one of the measures implemented throughout periods of warmer weather to minimise the impact of warmer water on our fish stock. Other measures include minimising fish handling, increased oxygenation during crowding and planning so that pen locations within the lease are exposed to maximise water flow.

Managing stock performance in different environmental conditions is an ongoing husbandry focus. Tassal works closely with the local research community on a variety of issues aimed at supporting the sustainability of farmed Tasmanian Salmonids in gradually warming oceans. Tassal has supported research undertaken at Deakin University into understanding the mechanisms behind thermal tolerance in fish stock.

Thermal tolerance refers to the ability of fish to cope with higher temperatures. The research also ties in with industry's Atlantic Salmon Selective Breeding Program (SBP) of which Tassal is a major stakeholder. The SBP actively targets genetic lines that have an increased temperature tolerance, assisting Tassal with the challenges of climate change.

Sustainable Agriculture Initiative

During the reporting period, Tassal became a member of Sustainable Agriculture Initiative (SAI) Platform Australia to connect with similar minded business in Australia to progress a shared vision of sustainable food production. The SAI aims to inform and advise on the key issues that impact sustainable food and beverage production in Australia. The focus of the SAI is to connect the farm-gate, manufacturers, buyers, policy makers, retailers, academics and investors to solve sustainability problems in the best interests of industry, farmers and productivity.

Note from WWF-Australia CEO, Dermot O’Gorman



Aquaculture – the farming of food in sea or freshwater, including animals and plants – plays an increasingly important role in feeding the world. For Australian consumers, Salmon is one of the most popular aquaculture products and Salmon farming is Australia’s largest Seafood sector. With good management and the right government policies, aquaculture can be carried out responsibly to reduce environmental impacts and maximise social benefits.

One challenge currently facing the Tasmanian Salmon farming industry as a whole, is that as the industry expands, public expectations can change as new evidence of impact comes to light. These are important issues and meeting the challenge of all three elements of sustainability: environmental, social

and economic, requires timely and constructive input from all stakeholders: business and government, local and scientific communities.

That’s why WWF works with Salmon farmers in Tasmania and around the world, helping to guide industry and encouraging adoption of the world’s best sustainability standards for farmed Seafood, which are set by the independent Aquaculture Stewardship Council (ASC).

WWF first realised this challenge back in 2012, when it partnered with Tassal - offering expert advice on its sustainability strategy and guiding the company as it implemented higher standards of responsible Salmon farming. In April 2016, WWF and Tassal announced the renewal of their partnership. We remain committed to transparency by publishing what we do together annually.

Our aim is to improve production and sourcing practices across the entire Tassal-DeCosti Group Seafood supply chain. We are also working together to raise public awareness of the increasing availability of certified sustainable Seafood, under the Aquaculture Stewardship Council and the Marine Stewardship Council (MSC) standards.

At the same time, Tassal continues to support WWF conservation action to help safeguard our oceans. During this financial year, Tassal has:

- Supported a Fishery Improvement Project (FIP) for the Peruvian Anchovy Fishery, the largest single-species fishery in the world which supplies raw material for the aquaculture feed manufacturing sector



- Funded a Girringun Traditional Use of Marine Resources Agreement (TUMRA) Seagrass Monitoring project in Queensland, to conduct seagrass monitoring and assess sites for the health and regeneration of seagrass meadows - a vitally important food source for sea turtles and dugong within the Sea Country boundary of the Girringun people
- Assisted the establishment of a Turtle Rehabilitation Centre by the Gudjuda Reference Group Aboriginal Corporation in Home Hill, Queensland. The turtle hospital cares for injured and stranded turtles, helping to increase survival rates and promote recovery of marine turtle populations in the area, and
- Supported work to compare and harmonise the methods commonly used to assess ecological risk for wild-caught Seafood, in order to improve understanding and uptake of sustainable Seafood by both producers and consumers.



WWF is proud of what we have achieved with Tassal over the past five years, although we also know that sustainability is a never-ending journey and with improving scientific knowledge there is always more work to be done. We look forward to supporting sustainability in the Tasmania Salmon industry in the year ahead.

Setting Targets for Sustainability

Setting appropriate commitments to environmental and social sustainability through measurable goals and targets provides us with clarity of purpose. We commit to our goals publically in order to drive accountability within our various business units, and also to ensure adequate resourcing is available in order to achieve each target. In taking a leadership role in the aquaculture sector, we have challenged existing business models. All goals and targets are endorsed by the Tassal board.

Progress on 2016 Goals and Targets

Environment			
Goal	Target	Did we achieve our target?	Commentary
Improve compliance across hatcheries	Investigate non-compliances at Rookwood Road hatchery Review non-compliances with regulators relating to reuse and potential impacts	Yes	Excess water from the press is now returned to the buffer tank and is again re-processed, meaning that any water that now makes it to the dam is cleaner. A new and more accurate polymer dosing pump has allowed for water processed to be of much better quality
Increase stakeholder engagement around wastewater reuse	Supply stakeholders with relevant information regarding the reuse of wastewater Undertake additional monitoring of freshwater reuse	Yes	
Further develop health management and disease surveillance programs for hatcheries	Develop a health management and disease surveillance program for each individual hatchery	In progress	The process has begun for an overall plan re-vamp across all Salmon hatchery sites. A Freshwater Fish Health Management Plan will be complete and implemented in FY2017
Optimise feed management	Remove 25% of 2.5 inch spinners from Salmon leases	Yes	Over 50% of 2.5 inch spinners have been removed from Salmon leases reducing feed breakage from 0.5% to below 0.06%
Work with feed supplier to maintain feed sourcing and traceability compliance for Salmon	Achieve ASC compliance	Yes	
Improve environmental performance	Reduce water used for bathing through selective breeding program Complete annual greenhouse gas assessments for each Salmon marine farming site in addition to biennial Life Cycle Assessment	Yes	Average bath per cycle reduced from 12-13 for the 13 year class of fish to 8-9 average baths for the 14 year class of fish GHG and Energy Use assessment conducted for each farming site as per Aquaculture Stewardship Council (ASC) certification requirements
Restructure marine operations	Restructure the six marine operations regions to four operational zones	Yes	
Reduce plastics waste	Begin feedpipe recycling program to reduce plastics waste going to landfill Investigate potential recycling and reuse opportunities for waste feed pipe	Yes	

Fish Health and Welfare			
Goal	Target	Did we achieve our target?	Commentary
Optimise fish health and welfare	Implement Zero Harm to Fish – freshwater and harvest programs	In progress	Implementation was delayed. The program was re-assessed to consider a more streamlined approach incorporated with our Zero Harm for People program and to ensure final RSPCA criteria were captured. Implementation is on track for FY2017
	Incorporate biosecurity guidelines into Zero Harm scorecards	Yes	Biosecurity procedures have improved across all of our sites as a result of incorporating the guidelines
	Ensure all sites are compliant with RSPCA Approved Farming Scheme standard	Yes	Although Tassal has not pursued RSPCA certification to date, our operations comply with the intent of the standard and we support the Principles underpinning the RSPCA Approved Farming Scheme
	Complete pre-assessment to draft RSPCA Approved Farming Scheme Standards – Farmed Atlantic Salmon	Yes	Tassal completed a scoping exercise across all operations with an RSPCA assessor
People			
Goal	Target	Did we achieve our target?	Commentary
Maintain high standard of labour conditions	Design and launch employee engagement survey. Analyse and report on results	Yes	Completed as part of the safety culture survey
Achieve Zero Harm for People	Achieve >95% overall score for WHS compliance scorecard	Yes	TRIFR and MTIFR was 24.46
	Implement 'Driving Safety Culture Scorecard' and achieve >90% overall score	Yes	
	Achieve leading indicator targets: - >60% controls to be level 1 or 2 - actions outstanding 0% overdue	Yes	
	Achieve lagging indicator targets: - TRIFR <20 - Fatalities 0 - LTIFR 0 - MTIFR <20 - Incident Rate 0 - Average Time Lost 0	No	
Focus on gender diversity	Appoint a female board member	Yes	Appointed Raelene Murphy in September 2015
Food Safety & Quality Accountability			
Goal	Target	Did we achieve our target?	Commentary
Ensure factory practices align to best practice	Become formally certified to new standard with major external partner	Yes	
Improve quality incident reporting and analysis	Implement improved recording and widen distribution of quality incidents reporting. Develop analysis tool for trending incidents	Yes	
Develop Zero Harm for Consumer program	Develop strategy and roll out plan for Zero Harm for Consumers program	Yes	Zero Harm for Consumers has been added to the Zero Harm platform

Goals and Targets for 2017

Goal	Target
Environment	
Improve recycling and reuse of waste across Salmon marine sites	Implement a net, rope and high-density polyethylene recycling program across all marine sites to reduce waste going to landfill and find reuse opportunities
Initiate Integrated Multi-Trophic Aquaculture Project	Have ongoing trials deployed at marine sites to initiate growth of seaweed and urchin species in conjunction with Salmon
Fish Health and Welfare	
Reduce use of antibiotics	Implement Yersinia IP vaccination for all Salmon All 17YC smolt to be vaccinated
Build fish health capacity	Upskill technical teams and staff members on best practice husbandry and welfare
Support industry goals to have a commercial pilchard orthomyxovirus vaccine	Support successful completion of vaccine development by the Fish Health Unit (Aquatic Animal Health and Vaccines Centre of Excellence)
People	
Revamp Workforce Transition programs that have greater reach	Work with local school community to offer school based apprenticeships
Strengthen Leadership Development Program	Appoint Learning and Development Advisor
Establish New Eastern farm working with local community base	Employ 70% from local communities
Achieve Zero Harm for People	<p>95% overall score for WHS Compliance Scorecard</p> <p>Driving Safety Culture Scorecard target >92% overall score</p> <p>Leading indicator targets:</p> <ul style="list-style-type: none"> >60% controls to be level 1 or 2 Actions outstanding 0% overdue <p>Lagging indicator targets:</p> <ul style="list-style-type: none"> - TRIFR <15 - Fatalities 0 - LTIFR 0 - MTIFR <15 - Incident Rate 0 - Average Time Lost 0
Food Safety & Quality Accountability	
Expand export approval for Dover, Margate and Huonville to include the EU	Obtain European Union certification for Dover, Margate and Huonville
Establish De Costi Seafoods as an export approved site	Obtain export certification at De Costi operations
Reinvigorate QMS aligned with best practice	Redevelop and implement a QMS which is based on Tassal maturity and risk profile, and aligns with best practice
Strategy	
Implement relevant Sustainable Development Goals across the business	Investigate specific Sustainable Development Goals and their applicability to Tassal
Gain cross sector traction on the Sustainable Development Goals	Key staff to engage and collaborate with broad range of Australian business leaders on the Sustainable Development Goals.

Investing in the Future through Research and Development

Underpinning all of Tassal's environmental and fish health performance targets is a focused dedication to research and innovation. We take a collaborative, forward focused approach to our research partnerships and work closely with environmental specialists, local researchers, local councils and natural resource management organisations. We are committed

to implementing environmentally robust business practices throughout our operations, which is reflected in the significant investments made in research and development. Protecting and conserving the environment for current and future generations is a critical priority for us and forms a fundamental part of Tassal's licence to operate.

Environment			
Project Name	Description	Impact on Sustainability	Project Status
Managing ecosystem interactions across differing environments	Building flexibility and risk assurance into environmental management strategies	<ul style="list-style-type: none"> • Reduce environmental impact through adaptive management strategies resulting from a better understanding of the working environment • Improving fish health and welfare 	New
Re-assessment of intertidal macroalgal communities	Assess macroalgal communities near to, and distant from Salmon farms and an evaluation of using drones to survey macroalgal distribution	<ul style="list-style-type: none"> • Improving fish health and welfare • Reduce environmental impact through adaptive management strategies resulting from a better understanding of the working environment 	New
Predicting marine currents	Predicting marine currents, nutrients and plankton in the coastal waters of south eastern Tasmanian response to changing weather patterns	<ul style="list-style-type: none"> • Improving fish health and welfare • Reduce environmental impact through adaptive management strategies resulting from a better understanding of the working environment • Minimise cost of production by providing the ability to predict events that will allow for early implementation of prevention methods. This will reduce fish loss and halting of operations. 	New
Fish Health and Welfare			
Centre of Excellence in Aquatic Animal Health and Vaccine development	Commissioning of a challenge facility with DPIPW, FRDC and Industry funds	<ul style="list-style-type: none"> • Improving fish health and welfare 	Ongoing
Thermal stress project – Deakin University	Determining thermal stress markers in Salmon	<ul style="list-style-type: none"> • Assists with breeding thermal resistance into our stock to improve fish health and welfare 	Ongoing
ATP-ase project – Deakin University	Accurate determination of smolt 'readiness' for optimal entry time into salt water	<ul style="list-style-type: none"> • Improving fish health and welfare 	Ongoing
CSIRO Collaborative Research Agreement – Amoebic Gill Disease (AGD)	Develop a better understanding of amoeba biology and optimising farm management techniques for AGD	<ul style="list-style-type: none"> • Reduce freshwater use • Improve fish health and welfare 	Ongoing
POMV Vaccine development	Development of a POMV vaccine for Salmonids	<ul style="list-style-type: none"> • Improve fish health and welfare 	Ongoing
Breeding and Genetics			
Whole genome selection	Development of technology and methodology to utilise modern genomic markers in the selection of resistance to Amoebic Gill Disease (AGD) within the Tasmanian Selective Breeding Program (SBP) broodstock	<ul style="list-style-type: none"> • Reduce freshwater use through less bathing <p>The genetic gains for each of these traits will be significantly improved through the use of whole genome selection, and cost of production is lowered by getting more fish through to harvest size in less time with less handling events.</p>	Ongoing
Genetic correlations between ploidy status and the effects of the environment within the Selective Breeding Program (SBP)	Examination of the effects of ploidy on fish performance in the two major Atlantic Salmon growing areas of Tasmania: Macquarie Harbour, and the South East region	<ul style="list-style-type: none"> • Maximise fish health and welfare and performance • Improve feeding efficiency to reduce environmental impact • Non-reproductive fish reduces risk to local ecology 	Ongoing
Environmental effects on the developmental physiology and performance of Atlantic Salmon (<i>Salmo salar</i>)	Examination of the influence of early rearing conditions on subsequent fish performance	<p>Optimising hatchery rearing conditions will ensure that smolts coming from these hatcheries are better conditioned for performance at sea.</p> <p>Cost of production is lowered through greater numbers of these smolts surviving to harvest size and through greater growth rates which can be achieved when fish are in good health.</p>	Ongoing
Salmonid Maturation – Recommendations for control within the SBP	Develop improvements to the current methodologies for the control of maturation in Atlantic Salmon	<ul style="list-style-type: none"> • Improve fish health and welfare • Minimise cost of production 	Ongoing

R&D Highlight:

TRF Dorvilleid project

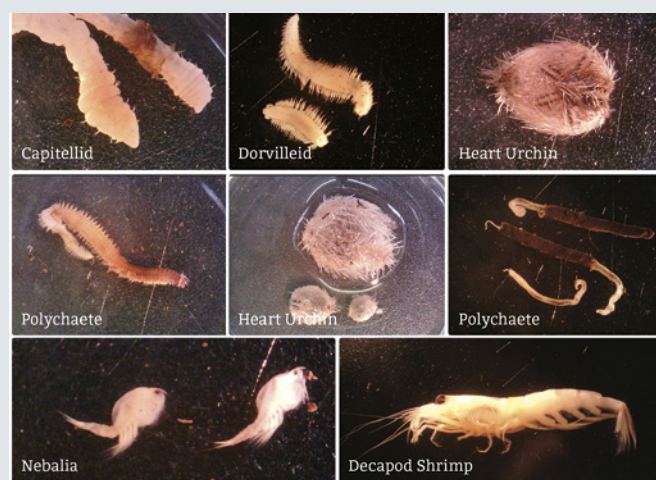
The expansion of Salmon farming in Macquarie harbour is contingent upon ecologically sustainable development. Underpinning such development are management regimes that regulate and minimise the impact of the farms on the benthic environment, and ensure that the impact is contained and reversible or not severe.

Recent responses of the benthic invertebrate communities, and most notably Dorvilleid polychaetes, in Macquarie Harbour to enrichment from Salmonid aquaculture have appeared to be somewhat inconsistent with expectations developed from southern Tasmanian regions. The limited understanding of benthic invertebrate communities and the behaviour of Dorvilleid polychaetes in Macquarie Harbour highlighted the need for focused research into this area. This report describes the work conducted by the Institute of Marine and Antarctic Studies (University of Tasmania) to address this knowledge gap.

Previous research has shown a clear impact gradient associated with cage Salmon farming operations, and that presence of bacterial mats (*Beggiatoa spp.*) and proliferation of opportunistic species are features commonly associated with high levels of organic enrichment. The presence of opportunists, such as Capitellid worms, have been classified as representative of 'unacceptable impact' and validated in south-east Tasmania.

The understanding that proliferating opportunists represents deteriorating conditions was translated to monitoring protocols in Macquarie Harbour. Although the relationship between opportunists and the level of enrichment was not explicitly tested in this region, video surveys in Macquarie Harbour suggested that in this region Dorvilleid worms rather than Capitellids were the species most indicative of organic enrichment effects.

However, recent responses of the benthos in Macquarie Harbour to enrichment from Salmonid aquaculture have appeared to be somewhat inconsistent with expectations developed from southern Tasmanian regions. This project was designed to enhance understanding of the ecology of Dorvilleid polychaetes in Macquarie Harbour and their response to organic enrichment from fish farming through a review of literature and a field study.



Example of infaunal species found on Tassal's Macquarie Harbour lease sites.

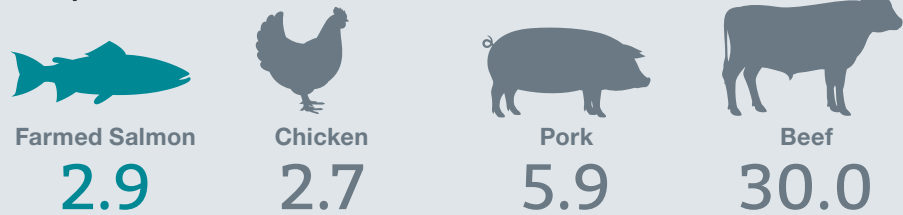
Salmon - A Sustainable and Healthy Protein Source

Salmon farming is the most environmentally efficient form of protein production. It boasts:

Carbon Footprint

- One of the lowest carbon footprints with much lower greenhouse gas emissions than land based protein production

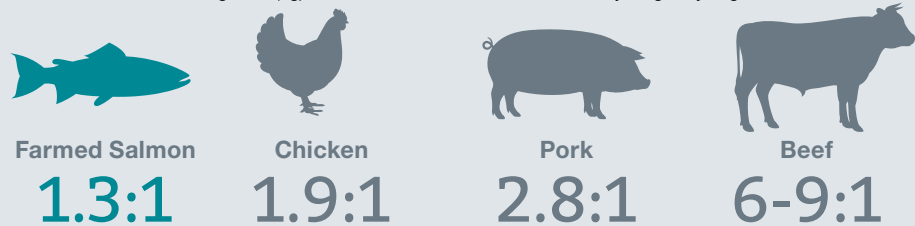
A carbon footprint measures the total greenhouse gas emissions caused directly and indirectly by the production of a product. A carbon footprint is measured in kilograms (kg) of carbon dioxide equivalent (kgCO₂e) per kg edible part of the product.



Feed Conversion

- The lowest feed conversion ratio compared to chicken, pork and cattle

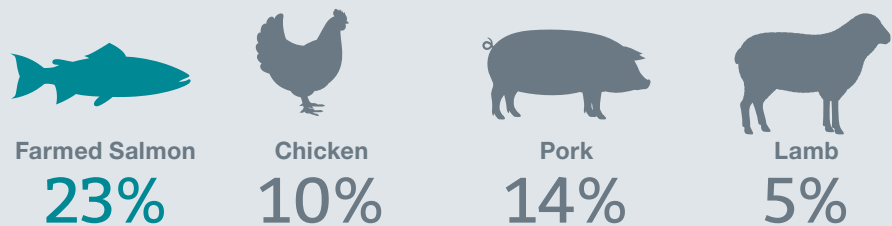
Feed conversion ratio (FCR) measures the productivity of different protein production methods. It demonstrates the kilograms (kg) needed to increase the animal's bodyweight by 1kg.



Energy Retention

- The highest energy retention (efficiency of product in retaining energy from feed) compared to chicken, pork and lamb

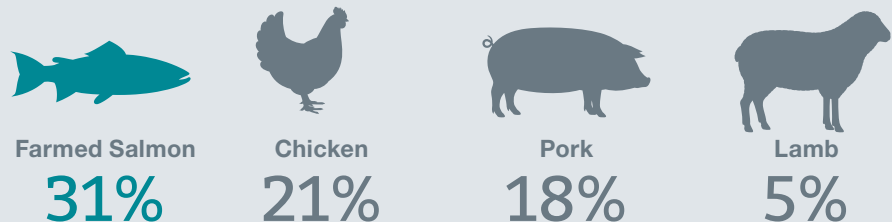
Energy retention describes the efficiency of a product in retaining energy from the feed. It is calculated as a percentage (energy in edible parts/gross energy fed).



Protein Retention

- The highest protein retention (protein gain as a percentage of the protein intake from food) compared to chicken, pork and lamb

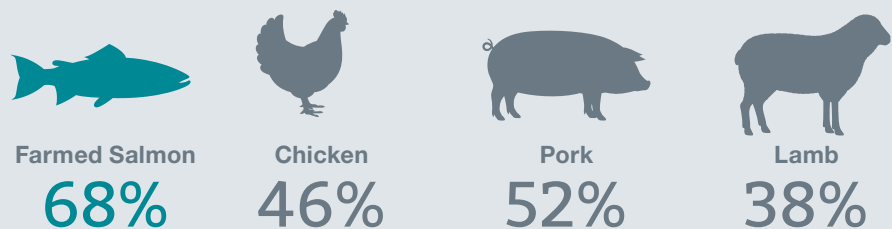
Protein retention describes the protein gain as a percentage of the protein intake from food. It is calculated as a percentage (protein in edible parts/gross protein fed).



Edible Yield

- The highest edible yield compared to chicken, pork and lamb

Edible yield is calculated by dividing edible meat by total body weight.



Source: Global Salmon Initiative <https://globalsalmoninitiative.org/en/sustainability-report/protein-production-facts/>

Salmon -
more than a
healthy source
of Omega-3

As well as the well-known benefits of healthy Omega-3, a 150g portion of Salmon provides:

A source of (>10% of %RDI*):

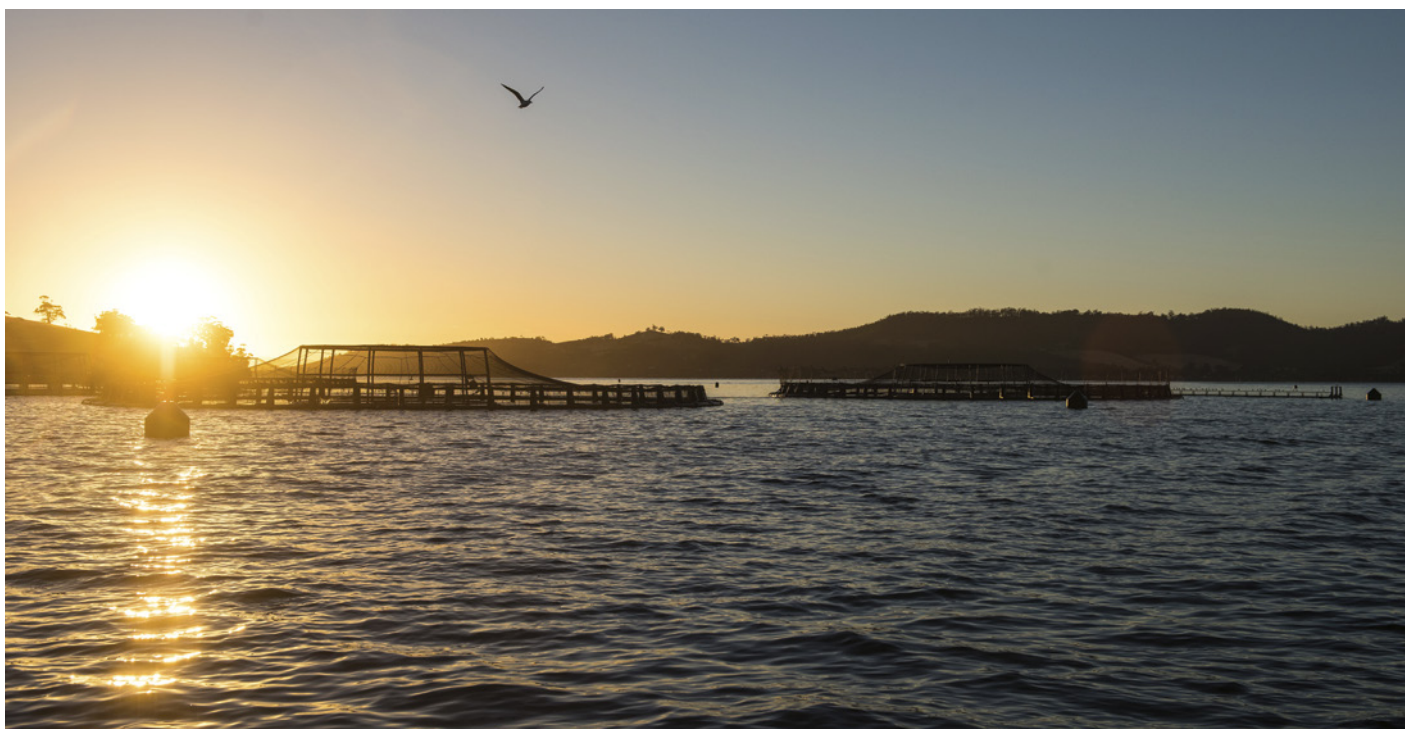
- Vitamin B1
- Vitamin D3
- Magnesium

A good source of (>25% of %RDI*):

- Vitamin B3
- Vitamin B12
- Vitamin E
- Phosphorus
- Selenium

*RDI = Recommended Daily Intake

5. 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. We use sophisticated modelling and monitoring programs to understand changes in near field and far field water quality as a result of our farming operations and invest heavily into research in this area.

Under Principle 2 of the Aquaculture Stewardship (ASC) requirements, we are required to address potential impacts from farming operations on biodiversity and ecosystem function. The criteria focus on benthic impacts, siting, effects of chemical inputs and effects of nutrient loading.

In response to this criteria, we have conducted Biodiversity Focused Environmental Impact Assessments (BFEIA) for all of our grow out leases. From FY2017, we will also conduct BFEIA for our flow through hatcheries. Annual audits at each site allow us to evaluate the effectiveness of our monitoring activities.

These assessments include habitats and species that could be reasonably impacted by the farm and incorporate:

- The identification of proximity to critical, sensitive or protected habitats and species
- The identification of potential impacts the farm might have on biodiversity with a focus on those habitats and species, and
- A description of strategies and programs to eliminate or minimise any identified impacts.

Our Future

For some time, Tassal has publically declared an intention to increase Salmon production. An increase in production does not necessarily require a matching increase in footprint (marine lease space). We have achieved significant production gains, and will continue to do so through improved animal husbandry, fish health, wildlife exclusion and selective breeding. We undertake planning 15 years (five production cycles) into the future, and, in the last ten years we have developed

one new site and amended three sites. One amended site will be opened at the Southern end of the Channel in August 2016.

Alternative rearing technologies

Tassal's dedicated Engineering Department reviews emerging marine and land based technology regularly and follows the commercial performance and viability of these systems.

When we review innovative technologies, we always consider human safety, environmental benefit, fish welfare, carbon footprint and commercial viability. Our Salmon is reared in an environmentally and ethically responsible manner, and Tassal's Salmon is one of the lowest carbon footprint proteins available in the world. Our Rookwood Road hatcheries use world class closed loop technology, recirculating water and reusing up to 98% of source water.

'Offshore' or 'higher energy' aquaculture is an emerging farming approach that Tassal is investigating. Offshore farms are

moved some distance from shore and are positioned in deeper, exposed, high energy locations.

Offshore or higher energy operations are generally located away from population centres and close to offshore islands, approximately two to three kilometres from the coast. Over half of Tassal's farms are located offshore.

Tassal is farming responsibly and sustainably in all operational areas, both inshore (close to shore) and offshore. We have optimised existing marine leases and our site selection is informed by an intrinsic understanding of the marine environment, our farming production processes and stakeholder engagement. Tassal currently farms in the most exposed, furthest offshore, and deepest leases in Tasmania. As with all good businesses we continue to learn and innovate and consider alternative technologies that may improve the sustainability performance of our operations.

New Site Development Activity

In line with our intention to increase Salmon production, we expect our FY2017 production to be approximately 25,000 metric tonnes with a stepwise progression to 50,000 metric tonnes by 2025. Over the last ten years, Tassal has developed only one new site and amended three existing sites. We have realised increased production through efficiencies and better husbandry practices over this time.

When investigating potential sites for expansion of farming, Tassal will examine various sites, some which may be suitable from an environmental and social perspective, and some that are not. Mercury Passage, located adjacent to Okehampton Bay, is one such example. We will **not** farm fish in Mercury Passage. A rigorous stakeholder engagement process is undertaken to ensure our social licence to operate.



Since 2010, Tassal has been undertaking a 'South East Optimisation' process to improve the use and management of current leases. The optimisation process aims to increase animal health and welfare, enhance fish performance and support improved environmental management and biosecurity measures. The project includes Tassal marine farms within southeast Tasmanian waterways and includes amendments to existing marine leases as well as new site developments.

Tassal has identified an area west of Wedge Island in Storm Bay for a new lease development as part of the Tasman Peninsula and Norfolk Bay Marine Farm Development Plan area (MFDP). This proposal in Storm Bay plays a key role in the South East Optimisation Plan allowing offshore development and growth for the business to meet consumer demands, in conjunction with economic benefits for one of the state's expanding industries.

With the four proposed new sites, we will have increased our marine lease footprint (hectares) by 50% - noting that the 50% increase is spread across all of our farming zones including new sites and amendments.

Lippies

During the reporting period, a proposed amendment to our East of Lippies (Lippies) lease in the D'Entrecasteaux Channel was approved after we chose to relinquish the Browns lease to the Crown in response to stakeholder feedback. This amendment and investment is part of Tassal's overall South East Optimisation Plan which is providing efficiencies for the company, improving fish performance and environmental outcomes. The Lippies marine farming lease is 40-50 m deep, is outside of the protection of the D'Entrecasteaux Channel and exposed to oceanic swells from a southerly direction.

During the development of our Lippies site, extensive environmental baseline research was conducted as part of the Environmental Impact Statement that was submitted to support the amendment.

Creeses Mistake

The Creeses Mistake lease within Tassal's Eastern Zone was amended in FY2016 to include broadscale environmental monitoring to assess the water quality and sediment health at the sites neighbouring finfish marine farms. This is a modernisation of licencing to reflect broadscale monitoring management and the removal of smolt input cap to the Creeses Mistake lease.

Okehampton Bay

Tassal entered into discussions with Spring Bay Seafoods in FY2016 to investigate use of the Okehampton Bay lease. The Okehampton Bay lease is currently used as a marine lease and is actively farmed for mussels. The site is licensed to grow shellfish, seaweed and finfish. We are planning to input salmon into Okehampton Bay in August 2017.

West of Wedge

Tassal was involved in the planning process for the West of Wedge proposal which had not yet been submitted to the Marine Farming Review Panel during the reporting period. Discussions were held regarding the proposed location with stakeholders and council and an open day was held in Nubeena to provide further information.

Our proposed West of Wedge development is 3 km from the nearest coast line, and 2 km from Wedge Island.

Navigation

Tassal understands that we share our waterways with other users and we are committed to safe navigation of our waterways. Our staff are licensed and trained professional boat handlers.

Marine farming leases are marked in accordance with International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) requirements as well as those of Marine and Safety Tasmania (MAST) and DPIPW.

Tassal is working collaboratively with MAST, Tasports, industry and recreational boaters to improve navigational outcomes for the D'Entrecasteaux Channel and Huon River, particularly in relation to marine farm lighting at night.

Tassal has also been involved in a comprehensive industry navigational risk assessment with specific reference to the West of Wedge proposal, providing a coordinated approach to navigational management in Storm Bay.



Recreational Fishing

During the reporting period, we received notice from recreational fisherman within the D'Entrecasteaux Channel and Huon River reporting catch of flathead with black flesh.

The black spots, or blotches, that are occasionally seen in the flesh of flathead, are melanin deposits in the flesh of the fish, which happens when there is old damage or inflammation that has healed. This issue is commonly known to occur in areas of Tasmania in the absence of Salmon farms, and no link has been made between this issue and Salmon farming.

Marine Debris

Marine debris poses a risk to maritime safety, wildlife and amenity. Our staff respond promptly to requests from the public to clean up marine debris and take responsibility for both the marine debris from our farms and other sources.

Tassal's marine operations waste mitigation plan covers all waste types generated on the water and their disposal, and includes steps to ensure waste does not enter the water. We are committed to a practical solution to limit and ultimately eliminate farm derived debris/waste and adding value locally by participating in broader clean up initiatives.

Whilst the presence of marine debris on beaches poses a threat to nesting birds, the removal of marine debris from beaches can also pose a threat to nesting birds unless undertaken outside breeding season. When conducting clean-ups we need to consider that beaches are critical nesting, feeding and resting (roosting) habitats for resident and migratory shorebirds, and resident each summer. All human activities on beaches during this period have the potential to disturb nesting birds resulting in nesting failure.

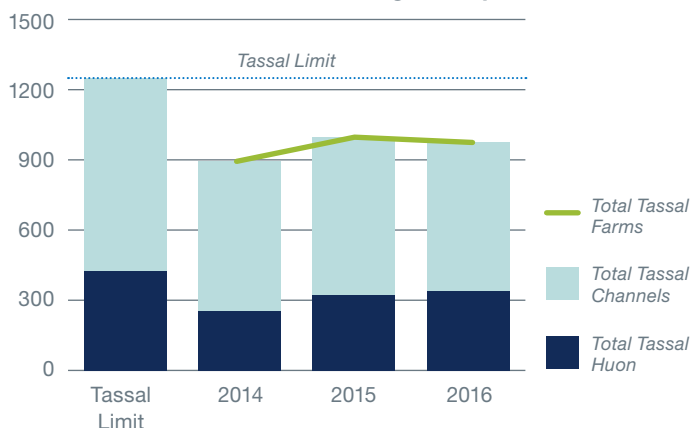
	Volume of rubbish removed m3	Hours	% attributable to Salmon farms
FY2014	29.5	342	68
FY2015	33.2	319	36
FY2016	23.5	250	65

Nitrogen cap

A range of regulatory controls are used to limit the amount of waste entering the marine environment. Primary controls such as placing a cap on nitrogen inputs, restricting the numbers of smolt that can be placed onto farms, or restricting the total biomass within a system are used in Tasmanian waters to ensure that the structure and function of surrounding ecosystems are not adversely affected by finfish aquaculture.

We are 100% compliant with our Total Permissible Dissolved Nitrogen Output (TPDNO) allocation in the D'Entrecasteaux Channel and Huon River Marine Farming Development Plan (MFDP) areas and we invest time and resources into ensuring that we stay within our limit at any given time. Our dedicated Technical Manager supervises feed use and regulatory compliance limits. TPDNO is allocated for a rolling twelve month period with quarterly reporting requirements to the Marine Farming Branch of DPIPWE. During the 2016 calendar year, the Director of the EPA determined that industry members would have the opportunity to effectively move up to 100 tonnes (each) of the TPDNO apportioned to each aquaculture company in the area covered by the Huon River and Port Esperance MFDP to the area covered by the D'Entrecasteaux Channel MFDP. A condition of this determination was that it will not result in an increase in the combined TPDNO for both marine farming development plan areas.

Total Permissible Dissolved Nitrogen Output



Note: Data for 2014 and 2015 are calculated by calendar year, and 2016 data is calculated on a financial year. From FY2017, all data will be calculated on a financial year basis.

Rocky Reef Communities

In 2015, Tassal supported a collaborative FRDC project (undertaken by independent scientists) aimed at understanding the broad scale impacts of Salmonid farming on rocky reef communities. This project established 26 reef monitoring sites across the Bruny and Freycinet marine bioregions off Tasmania's south east coast. Eleven of the 26 sites were established within three of the four Marine Protected Areas (MPAs) in these bioregions.

The project also analysed macroalgal community data across the Tinderbox, Ninepin Point and Maria Island MPA reef systems collected annually from 1992-2015 by the Tasmanian Institute of Marine and Antarctic Studies (IMAS). Analysis of

this data showed no consistent pattern of broad scale change in macroalgal community structure over time that could be attributed to the environmental effects of salmon farms. A copy of this report can be obtained from the FRDC website (www.frdc.com.au/research/final-reports/Pages/2014-042-DLD.aspx).

Independent biodiversity surveys at each of Tasmania's MPAs are undertaken annually by IMAS. Biodiversity characteristics (i.e. fishes, invertebrates, macroalgae etc.) are analysed to detect any long term trends across the dataset since monitoring commenced in 1992. As mentioned above, no consistent pattern of broad scale change in macroalgal community structure was observed over time that could be attributed to the environmental effects of Salmon farms.

The Edgar and Barrett (1997) standardised underwater visual census method is an established and recognised methodology for monitoring biotic change in Tasmanian MPAs, and is widely used for reef surveys in Southern Australia.

Environmental Regulation and Compliance

The Tasmanian Salmon industry is one of the most regulated in the world and Tassal has a long history of strong compliance with environmental regulation. While we always strive to achieve 100% compliance, this is not always possible and we have a strong commitment to continuous improvement across all of our business practices.

All of our environmental compliance and performance is transparent through our public reporting and we have a very low appetite for risk or non-compliance with respect to the environment and biosecurity. No monetary fines for environmental non-compliance were received during the reporting year.

During the scope of the reporting period, marine Salmonid farming operations in Tasmania were primarily managed under the provisions of the Marine Farming Planning Act 1995 (MFPA) and the Living Marine Resources Management Act 1995 (LMRMA) and supporting legislation. Both Acts are components of Tasmania's Resource Management and Planning System.

The MFPA provides, amongst other things, statutory processes to plan for marine farming development, and to determine the allocation of marine farming leases in State waters. The LMRMA authorises the activity of marine farming, determining what species may be farmed within a lease area and under what conditions by way of a marine farming licence.

In 2016, the Tasmanian Government announced changes to the regulatory framework for Salmon farming. The Environment Protection Agency (EPA), as the State's existing independent environmental regulator, was handed the responsibility for the environmental regulation of Salmon hatcheries and farms. The EPA's focus is on the day to day environmental regulation of both marine farming and freshwater hatcheries, while the functions of industry planning and development for the Salmonid marine farming sector remain under the jurisdiction of the Minister for Primary Industries and Water. The EPA Director will now be provided relevant delegations under the MFPA and LMRMA to manage environmental regulation.

Benthic and Water Quality Management Compliance – Marine Operations

Tassal conducts benthic compliance monitoring in line with licencing requirements on all our active marine farming leases. None of Tassal's marine farming leases are located in a protected area of High Conservation Value Area (HCVA) as defined in the Aquaculture Stewardship Council (ASC) Salmon standard. Benthic footage is collected both within and outside of each lease area at compliance points determined by DPIPWE. Results from this observational work are used in conjunction with depositional modelling as a management tool to assess and minimise organic deposition footprints.

All video work is carried out using a Remote Operated Vehicle (ROV) by Tassal's dedicated environmental team. Tassal also contributes data obtained through ROV surveys to collaborative projects with industry and research institutions. Recent work focuses on sediment characterisation around different farming regions, including differentiating between Tasmania's south east and western Salmon growing regions to gain an understanding of how the current visual component of the benthic regulation needs to be modified to suit the unique biophysical conditions of Macquarie Harbour.

Tassal conducts ROV work in line with current regulation requirements and uses this information in combination with netwash, feed inputs, stocking and fallowing data. Internal intermediate survey work is also conducted. This work informs Tassal's adaptive management of farming leases in changing environmental conditions.

We have also been working with a supplier of scientific equipment to trial a deployment of telemetered water quality logging sensors from a feed barge in the northern D'Entrecasteaux Channel, to improve our understanding of seasonal fluctuations of the channel's water quality. This will provide a stepping stone for us to acquire a profiling buoy capable of measuring above parameters throughout the entire water column, aiding in reaffirming CSIRO water quality models in the Channel.

During the reporting year, Tassal advised DPIPWE of 13 out of lease non-compliances. 12 of these non-compliances were in Macquarie Harbour and one in the South East. In response, the DPIPWE set specific management controls which were implemented by Tassal.

No cautions or infringement notices were issued by the Marine Farming Branch as a result of marine farm inspections during the reporting year.

ROV Dives & Compliance			
Year	Number of ROV Dives	Number in Compliance	% Compliance
FY2014	122	121	99.2
FY2015	329	322	97.9
FY2016	380	367	96.46

DEPOMOD

DEPOMOD (depositional modelling) is used for planning and monitoring of sea cage fish farms, and was specifically developed for Atlantic Salmon farms.

Tassal uses DEPOMOD to run simulated production cycles at its leases to better understand the likely environmental footprint at a specific site given a set of production parameters.

DEPOMOD models the deposition of solid (faeces, fish scale loss, uneaten feed pellets) outputs from fish within a production cycle. Tassal couples this information with models that show nutrient dispersion in context of the receiving environment. This allows Tassal to determine appropriate fish stock and production that will align with the surrounding environment and support healthy fish production.

Carrying Capacity

Each site is unique and can handle varying levels of organic inputs, such as feed and faeces from Salmon farming. This known as the carrying capacity of the site, which refers to the volume of fish that can be farmed within a given area. The Salmon industry uses a range of tools to determine the carrying capacity of individual sites and farming areas including depositional modelling, visual (ROV) and sediment core analysis work, initial baseline survey information, hydrodynamics, site energy and exposure to wave action and other currents, land influencing factors (e.g. runoff), particle size, depth of site, and intended use (e.g. duration of stocking).

For example, we may have four sites in a Zone and one site is only suitable for smolts, and a low carrying capacity over a shorter period, and another site due to its depth, water quality profile and compliance record will be suitable to grow out a much larger tonnage to harvest.

Carrying capacity management controls include stocking densities and fallowing requirements.

Marine Dust

'Marine dust', a sediment identified on macro algae, has recently been attributed to Salmonid farming, particularly in the Huon River and D'Entrecasteaux Channel. A report commissioned by DPIPWE, the Tasmanian Abalone Council and representatives of the Tasmanian Salmonid farming industry, found no evidence that marine dust is due to Salmon farming. The study found that the dust comes from a variety of sources, including agriculture and forestry, marine farming, industrial outfall and waste treatment plants, in addition to natural sedimentation processes and is not specifically linked to Salmon feed or faeces.

The Institute of Marine and Antarctic Studies (IMAS) will conduct a further assessment of the broadscale effects of Salmonid farming including impacts on rocky reefs and sedimentation. Implicit in this is research into the origin and quantity of marine dust. In addition, a number of FRDC funded projects commenced in 2016 to assess the impact of sediments from Tasmanian Salmon farms on adjacent or nearby rocky reef systems and the potential for interactions with other marine industries.

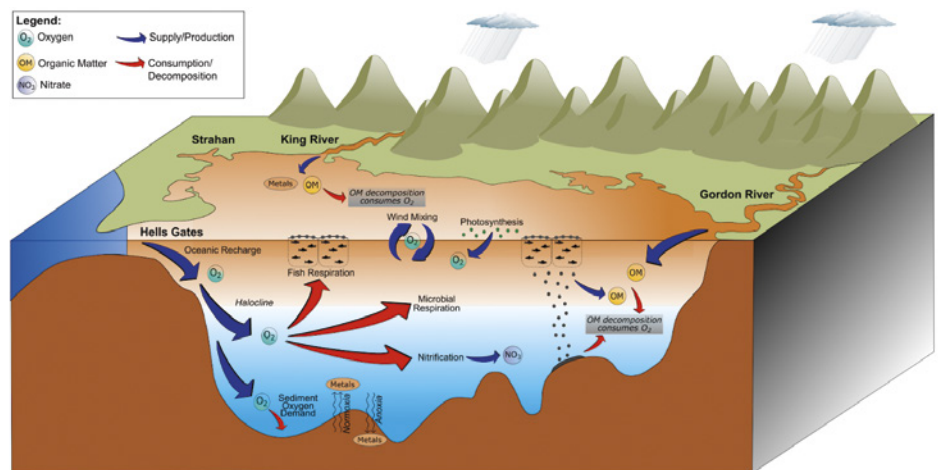


Water Quality in Macquarie Harbour

Macquarie Harbour is integral to Tassal's Salmon production cycle, with planning processes more than 30 months in the making. The harbour fills a gap in production, as triploids don't mature but are sensitive to warm temperatures and bathing for amoebic gill disease (AGD). Macquarie Harbour provides ideal growing conditions where we can grow triploids because of its cooler waters, and the site has no incidence of AGD. Our Salmon experience good growth, performance and survival in the harbour.

Macquarie Harbour has many factors that can influence water quality including historic mining runoff and legacy pollution to sediments, Hydro Tasmania fresh water pulses for power generation, flood events, aquaculture production, oceanic influences and high exposure to predominately westerly weather patterns.

While the Harbour's maximum depth is around 50m, a shallow sill of less than 5m sits at its mouth and restricts oceanic exchange. This isolation of deep water in the Harbour results in a naturally depleted dissolved oxygen (DO) environment with low natural biodiversity. DO levels fluctuate within the bottom waters and have a direct impact on the benthic management and production of aquaculture leases across the industry. The unique hydrodynamics of the



Harbour and the complexity of the drivers of this system means that 'adaptive' management practices need to be applied to all farming operations within the industry in order to 'move with the system' and achieve both compliant benthic environments and successful production.

Tassal is committed to ensuring the continued health of the Harbour and future use of its waters and participates and actively invests in Macquarie Harbour monitoring and research projects. Some of these projects include the Sense T dissolved oxygen, temperature and salinity real time network, commencement of the Pelagic dissolved oxygen consumption research campaigns, and the FRDC Dorvilleid study.

Beggiatoa

Beggiatoa is a naturally occurring bacteria. Industry regulation uses a range of indicator species such as Beggiatoa to determine whether organic enrichment (potentially caused by fish feed and faeces) is occurring in the sediment. The bacteria is often also found in areas of high organic input in the absence of fish farming. Beggiatoa is used as a measure of compliance in Macquarie Harbour.

The presence of Beggiatoa does not necessarily indicate nutrient enrichment from marine farms and is expected to disappear as oxygen levels naturally recover throughout the greater Macquarie Harbour system.

Dorvilleids

The present regulatory management protocols implemented in Macquarie Harbour were developed based on industry farming practices and conditions in the south east of the state – these two distinct farming areas are now known to be significantly different in their reaction to Salmon farming. This difference, confirmed in 2015, has highlighted the need for focused research in relation to the ecology and system response to organic enrichment in Macquarie Harbour.

As a result, it was determined that the Marine Farming Branch (MFB) of DPIWPE would not require management responses from aquaculture companies in relation to Dorvilleids and reliance would be placed on the presence of *Beggiatoa spp* at 35 metre compliance points to trigger the requirement of a management response.

Research is ongoing and to date has discovered the presence of two separate species living in the Harbour system.

Maugean Skate

Macquarie Harbour is one of only two areas known to be occupied by the Maugean skate. The Maugean Skate is listed as a matter of National Environmental Significance under the Environmental Protection and Biodiversity Conservation Act (EPBC) 1999. It is also listed as endangered on the IUCN Red List. A recently completed Institute for Marine and Antarctic Studies (IMAS) study has established that the skate is distributed throughout Macquarie Harbour and feed mainly on a diet of crustaceans. Research showed no evidence that skate feed on fish feed that enters the harbour floor. The IMAS study also concluded that the population is considerably larger than previously assumed and there was relatively limited overlap in the skate's habitat location and marine farm lease locations.

Tassal is currently in discussions with IMAS to develop a research proposal to continue research into this species. This next step in the research will focus on how the skate respond to and cope with the varying environmental conditions within the harbour system.



Environmental impact of uneaten feed

Uneaten feed can result in potentially increased environmental impacts resulting from increased suspended organic particles and nutrients released into the environment. However, fish convert food substantially more efficiently than humans, and in the context of the ocean, fish waste contributes valuable nutrients to the ecosystem.

As part of our ASC certification, internal procedures set limits on the total amount of fines (dust and fragments) in feed. Each feed system is tested quarterly. This process allows us to ensure the proper transport, storage and delivery of feed to our fish, which minimises our environmental impact.

Cawthron Report

During the reporting period, the Tasmanian Government released the Cawthron Institute report into the Salmon aquaculture industry with a particular focus on Macquarie Harbour.

The Cawthron Report details a number of recommendations which Tassal is either already implementing independently or would be prepared to implement under direction from the regulator. These recommendations include:

Benthic Monitoring

- Review of the benthic monitoring program after related relevant research work is completed

- Joint sampling sites for benthic and water quality (particularly dissolved oxygen) monitoring
- Continued control site monitoring on a routine basis during industry expansion, and
- Synthesis of Macquarie Harbour monitoring results and related data (exploring relationships between Salmon production data and environmental variables)

Water Quality

- Further targeted research on pelagic processing of organic and inorganic wastes
- Additional near real-time data from the pelagic environment
- Additional data collection, and
- Focus on estimating the effects of aquaculture in isolation at individual monitoring sites

Third party peer reviews such as the Cawthron Report validate the environmental management and sustainability approach taken by Tassal and the Tasmanian Salmon industry.

A full response to the recommendations of the Cawthron review was prepared by the Department of Primary Industries, Parks, Water and Environment (DPIPWE) and is available at www.dpipwe.tas.gov.au.



Land Based Compliance

In addition to our marine farms, we also have operations that take place on land. These include our freshwater flow through and recirculation hatcheries and our primary and value add processing facilities. Each of Tassal's processing facilities are regulated under environmental conditions issued by the Environmental Protection Authority (EPA). Tassal is directly involved in the integrated sampling regime undertaken in the Derwent Estuary and sits on the Derwent Catchment Water Quality Working Group as part of the Derwent Estuary Program. The program helps us to develop a greater understanding of the estuary – Hobart's primary source of drinking water and home to numerous primary industries.

Compliance in Hatcheries

Compliance at our hatcheries is managed by the local councils and the Inland Fisheries Services. These licence conditions broadly cover wastewater re-use, irrigation, solid waste management, vegetation management, water quality and use of bore water.

Tassal's Rookwood Rd Hatchery located at Ranelagh near Huonville is a fully recirculatory aquaculture system, with 98% of the water cleaned and reused in the hatchery. The remaining water is used for irrigation on local farming properties. No water is pumped to or

from the neighbouring Huon River. In FY2016, 97.2% compliance was achieved at Rookwood Road Hatchery, an improvement on last year's 96.8%. Tassal is currently in the final stages of finishing construction of a second recirculation hatchery at Rookwood Road which will have the capacity of producing 4 million smolts each year. The development of the second Rookwood Road hatchery will see more areas in the Huon Valley receive the reuse water.

Tassal's Russell Falls and Karanja hatcheries situated on the Tyenna River recorded 100% compliance for FY2016. The Tyenna River, a tributary of the Derwent, starts at the back of Mount Field and flows in an easterly direction for 40 kilometres before its confluence with the Derwent River above Bushy Park. Approximately 1.5 km of the river flows through Mt. Field National Park. The Tyenna River is managed as a wild trout fishery.

In addition to water quality monitoring, surveys to assess macroinvertebrate abundance, species and community composition upstream and downstream of our Russell Falls hatchery are undertaken as part of ASC certification requirements.

An ASC assessment found that the overall condition of the benthic macroinvertebrate community at both the Russell Falls and Karanja sites was rated as good, with a high rating for all

component indicators. Compositional differences between the two sites reflected a low level of organic and/or nutrient enrichment at the downstream site (also reflected by the higher area of algal growth cover on the stream bed), as previously observed in spring 2013 and 2014 (Davies and Cook 2013, 2014). There was a slight improvement in ratings and indicator scores between November 2014 and October 2015, with slightly greater community similarity between the upstream and downstream sites reflecting a relatively smaller effect of organic supplementation from the hatchery outfall.

The assessment results indicate that the communities at both sites are in good condition, and that while there is evidence of slight organic enrichment at the downstream site, it is of a low order.

Tassal is in discussions with the University of Tasmania to assist with a study project focussed on understanding river macroinvertebrate communities associated with Salmon farming activities.

During the reporting year, Tassal engaged an independent third party to undertake a sustainability survey of irrigation practices. As a result, an Irrigation and Environmental Management Plan has been completed, which incorporates the increased water reuse volumes as a result of the second Rookwood Road hatchery, in addition to the existing approved reuse scheme from the current hatchery operation.



Wastewater Treatment Compliance

Tassal's processing activities (Dover, Margate, Huonville and Triabunna) operate within a planning and regulatory environment governed by State legislation that falls under the Tasmanian Resource Management and Planning System (RMPS). Where the EPA has deemed it appropriate, biosecurity management has been integrated into environmental conditions for specific Processing activities under collaboration with Biosecurity Tasmania.

Tassal continues to make substantial improvements in wastewater treatment and compliance across processing sites, with observable improvements at the Margate factory wastewater treatment plant (WWTP) and high level performance at the Dover factory WWTP. Further enhancements to treatment processes continue to take place.

Compliance in Processing

Dover Processing Facility

The Dover processing facility operates under a land use planning permit issued by Huon Valley Council (DA 229/2010) and regulated by the EPA.

The Dover WWTP operates at high efficiency, achieving general compliance with the treatment plant maximum discharge limits consistently in the second half 2015 until May 2016

(95% compliance). During 2016/17, a waste sludge screw press system will be installed to further improve treatment.

Margate Processing Facility

The Margate processing facility operates under an environment protection notice (EPN 7098/2) and regulated by the EPA. As required under the EPN, the Margate factory WWTP is managed under a three year wastewater management plan formulated to manage wastewater from the factory and to bring emissions into compliance with the EPN tight emission limits under increasing load.

Effluent emission limit compliance performance improved overall for the year and has continued to improve. Stage 1 of the wastewater management plan, a new WWTP headworks for solids, oil and grease removal from the wastewater stream, was commissioned in early FY2016. A camera survey of the effluent discharge outfall showed no current emission impacts and a healthy benthic environment in the outfall mixing zone.

The site also operates under a comprehensive approved Biosecurity Management Plan with a very strong wastewater management and disinfection focus, as required under the EPN.

Huonville Processing Facility

The Huonville processing facility operates under a land use planning permit issued by Huon Valley Council (DA 54/2009) and regulated by the EPA.

Wastewater is discharged untreated to TasWater Ranelagh WWTP, which is monitored by Tassal and TasWater to ensure responsible discharge. Tassal continues to assess ways to minimise the discharge organic and oil load to the Ranelagh plant, including looking at water use reduction, and to determine future requirements.

Triabunna Processing Facility

In October 2015, Tassal commissioned a new fishmeal and oil facility (rendering plant) at Triabunna. The Triabunna processing facility operates under a land use planning permit issued by Glamorgan Spring Bay Council (DA 2014/00001) and regulated by the EPA.

Wastewater produced by the plant is a small amount of bin wash and wash down water, filter wash water, and largely condensate water from the meal dryer. Water is stored in a large dam and subsequently irrigated on the 'Rostrevor' property, which hosts the processing facility, under an approved water reuse irrigation plan.

At our Triabunna processing facility, there were some learnings to occur on waste water condition and treatment, particularly to see if the plant performed to expectation. There were some heightened periods where dam conditions were not to expectation. This related to some commissioning issues, combined with a 1 in 10 year rain season at Triabunna. Improvements are being implemented to the system to adapt with plant consistent operating performance. Overall, the facility has delivered a vast improvement and modernisation to salmon waste processing in Tasmania.

Lidcombe Processing Facility

The Lidcombe processing site at the De Costi site in Sydney, is permitted to discharge to Sydney Water Corporation Sewer under the terms of the Consent to Discharge Industrial Trade Waste, which sets parameters for water quality and volume. A complete review of the waste water operations was conducted by Tassal, and a number of areas for improvement were identified.



Environmental Performance

Tassal undertakes to identify and assess environmental risk and act to eliminate or minimise environmental impacts that arise from the manufacturing and processing of our products, and throughout our operations. Measurable objectives and targets are established and aim to prevent pollution and improve environmental performance. We monitor and review these measures to ensure that we continually improve.

We have internal policies and procedures in place to ensure that our activities comply with all applicable environmental standards relating to water, emissions, energy, effluents, transport, waste and use of materials.

In the reporting year we completed a detailed Life Cycle Assessment (LCA) of our supply chain in order to measure the environmental impacts of production and understand areas for improvement. LCA is a comprehensive, methodological framework that quantifies the environmental impacts that occur over the life cycle of a product. Included in the LCA were greenhouse gas emissions, fuel use, water use and eutrophication potential.

Water Use

Freshwater is a valuable natural asset which we have a responsibility to use as efficiently as possible. All aspects of our operations use freshwater. It is used to grow the fish in our hatcheries, to bathe our Salmon in Amoebic Gill Disease (AGD) baths at our marine farms, and to clean the fish in our processing factories.

Water is sourced under licenced extraction from the Tasmanian Government or through supply arrangements with water authorities. We also harvest our own rainwater for use in our marine and processing operations. Water used for freshwater bathing is collected close to the mouth of various estuaries, various dams or rivers, and once used, it is returned to the same basin with very minimal change to water quality.

A total of 103,151 ML of freshwater was used by Tassal in FY2016, which equates to 3.3 ML per HOG tonne of Salmon. The majority of water used by Tassal in the reporting period was in our flow through hatcheries at Russell Falls and Saltas.

This water is diverted from rivers and returned relatively unchanged to the same river following treatment to remove the nutrients from uneaten food and waste products. This is also the case for 1.7% of the water used for freshwater bathing which is taken from nearby water sources and released into the ocean after bathing the fish. The remaining 47.6 ML comes from reticulated supply.

In addition to freshwater use, some seawater is used for the harvest boat, as well as for ice, slurry and cleaning at the Dover processing plant

Water Use			
Sector	Site	Freshwater source	Volume (ML)
Marine Operations	All	Reticulated	1.1
	Southern	Dam/River	1,129.4
	Channel Zone	Dam	318.0
	Eastern Zone	Dam	321.0
Hatcheries	Russell Falls	Reticulated	0.6
	Rookwood Road	Reticulated	0.6
	Rookwood Road	Bore	60.0
	Russell Falls	Flow through	44,152.0
	Saltas	Flow through	57,123.0
Processing	Margate	Reticulated	14.1
	Huonville	Reticulated	31.2
	Dover	Dam/River	22.0
	Triabunna	Dam/River	30.0

Notes:

Data for reticulated water is sourced from invoices

Data for Marine Operations freshwater is estimated based on bath frequency and volume of water used

Data for Rookwood Road hatchery is sourced from metered usage

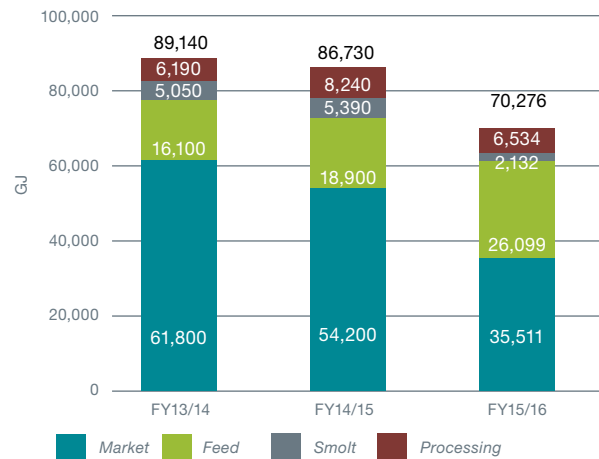
Data for Russell Falls and Saltas is sourced from licenced usage

Energy Use

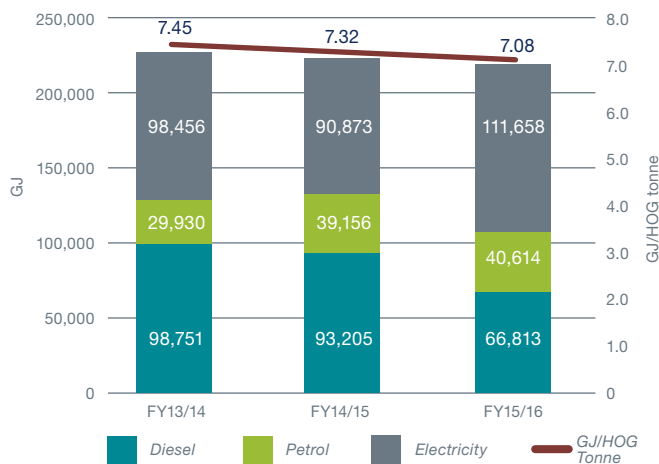
Energy is an essential business input and understanding and managing energy inputs is a key component of our sustainability objectives. A total of 219,085 GJ was used in Tassal's operations in FY2016 which equates to 7.1 GJ per HOG tonne. The main source of energy used was electricity which increased by 23% in the reporting period. Increased energy use was seen in both freshwater operations (33.1%) and processing (11%) due to the inclusion of our second recirculation hatchery Rookwood Road II and the Triabunna Processing Facility.

Marine operations accounts for 44.4% of all energy used, mainly due to the use of diesel on site. Total diesel use was reduced by 28% from the previous reporting period, resulting in a decrease in energy used by marine operations by 20.4%.

Transport Energy (GJ)

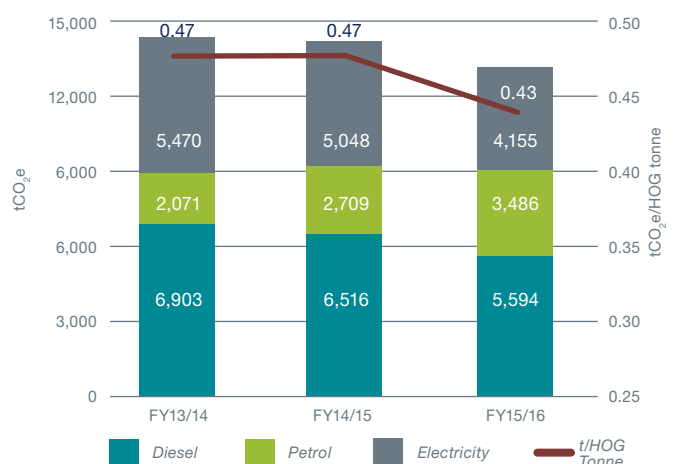


Energy Use by Source (GJ)

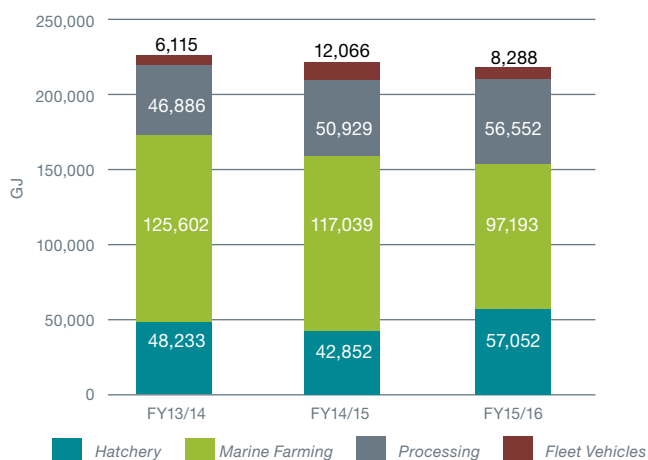


Diesel figures were reported incorrectly in our 2015 Sustainability Report. They are represented correctly above.

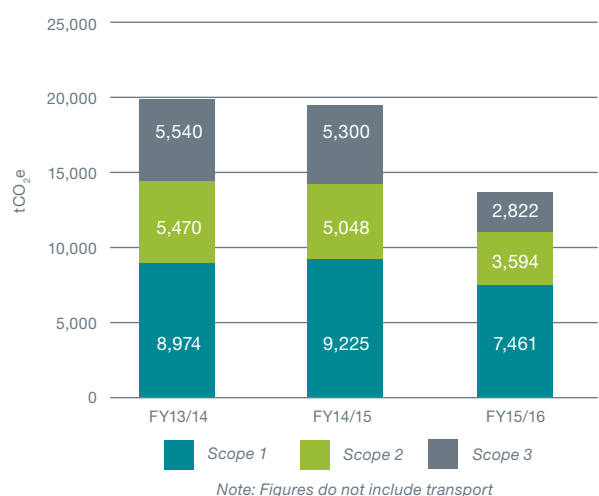
GHG by Source (GJ)



Energy Use by Division (GJ)



GHG by Scope (tCO₂e)





Waste Management

Tassal is committed to finding innovative ways to minimise and manage the waste that we create through continuous improvement and the prevention of pollution. We have developed a waste management framework to ensure that our activities and services comply with all applicable environmental standards.

Marine Operations Waste Management

Our shore based facilities are the main repository for all waste generated by our operations. Waste service providers collect Tassal's onshore waste. Feed bags are bundled or compacted on site and sent for recycling. All hire pallets are repaired where possible and returned to the supplier. Wherever possible, scrap steel is recycled via a scrap metal recycler.

Envorinex

In line with Tassal's commitment to reduce plastics waste, local polymer company Envorinex collected approximately 102,000 kg of waste Salmon pen pipe and stanchions along with feed pipe from our sites. Of this total, 67,815 kg was recycled into pellets and the remaining will be processed in the next reporting year.

35,487 kg of the pellets were sold to a manufacturer in Melbourne that extrudes

sheet high density polyethylene (HDPE). The remaining pellets were used by Envorinex to manufacture spacers which are used between steel beams, fire extinguisher brackets, fence posts and permeable pavers. All plastic is recycled back into pellets and used to remanufacture new products.

There is no wastage from the material collect from our sites, other than the few barnacles.

Net Slab Waste Management

Mussel shells were the only waste generated at our net slab during the reporting period. We are currently investigating disposal methods via land spreading and exploring recycling opportunities for condemned nets and scrap rope.

Freshwater Operations Waste Management

At our Rookwood Road hatchery, wastewater is treated with a flocculent and then filtered to obtain a sludge which is composed of 20-30% solids. This sludge is taken to a composting facility for addition to green waste for further composting. During the reporting period, 1,056m³ sludge was sent to the composting facility.

40,000 litres of sludge was also removed from the recirculation holding tank at our Russell Falls hatchery. The sludge was

removed by a waste service provider and used for land spreading. By collecting the sludge we have avoided valuable nutrients being sent to landfill. Additionally, redistributing the sludge over agricultural land has meant that farmers have reduced the need to fertilise their properties.

Processing Waste Management

Wastes generated at our processing facilities include:

- Dry wastes
- Wet wastes (e.g. fish soiled packaging and plastic liners)
- Fish by-product
- Rejected finished products, and
- Liquid wastes.

Organic materials, principally fish by-product, represent the greater majority of 'waste' generated by our processing facilities, however, this material has intrinsic value as a resource for further down-stream processing and is only a waste as far as wet and value-add processing is concerned. All remnants of fish from processing are suitable for further value adding. We must ensure this resource is managed and stored to preserve its integrity and maintain biosecurity, to ensure a quality material is supplied for further processing for oil and protein recovery. All remnants of fish from processing are sent to our Triabunna by-product processing facility.

Recovery of Nutrients from biomass 'waste'

Biomass	Weight (tonnes)			Protein (tonnes)			Omega-3 (tonnes)		
	FY2014	FY2015	FY2016	FY2014	FY2015	FY2016	FY2014	FY2015	FY2016
Heads & Frames	2,790	1,416	1,529	334	160	183	28	12	13
Guts	2,930	3,117	2,524	645	686	555	299	318	257
Trims	743	850	918	149	159	110	7.4	6	8
Skins	314	424	458	63	85	55	3.1	2.9	4
Mortalities	321	1,684	736	60	315	138	16	84	37
Total Nutrients Recovered	7,088	7,491	6,164	1,250	1,404	1,041	353.5	422.9	319

Nutrient Recovery from Sludge and Fish Biomass

Waste products generated from our operations 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 fish oil.

Packaging

As a signatory to the Australian Packaging Covenant, Tassal is aware of the importance of both reducing packaging and using recyclable packaging. Packaging design is largely dictated by product preservation and quality assurance in addition to cost effective shipping and handling. Preserving food safety is paramount.

Eutrophication potential

In the context of aquaculture, eutrophication potential refers to the enrichment of nutrients in a particular waterway. Tassal's nutrient input to the environment is measured in tonnes of PO₄ (Phosphate Equivalent). The vast majority of these nutrients originate from the metabolic by-product from the digestion of feeds by Salmon.

A total of 1,705 tonnes of PO₄ was lost to the surrounding environment of which 98% came from marine farms.

The Margate and Dover processing factories have onsite waste water treatment plants (WWTP) to deal with the waste water before discharging into the ocean. In FY2016 a total of 170 ML was discharged with a total Biological Oxygen Demand (BOD) of 1.4 tonnes and 2.2 tonnes of Total Suspended Solids (TSS). In addition to this, 48.9 ML of waste water from the Huonville factory was sent to a local water treatment facility which contained a total of 37.0 tonnes BOD and 16.0 tonnes TSS.

Improvements were again seen in the nutrient load of the water being discharged at Dover as a result of the successful development of the biological systems in the WWTP upgrade that was installed in FY2013. This reduced total nitrogen from 3.79 tonnes to 2.02 tonnes and total phosphorus from 0.16 tonnes to 0.07 tonnes.

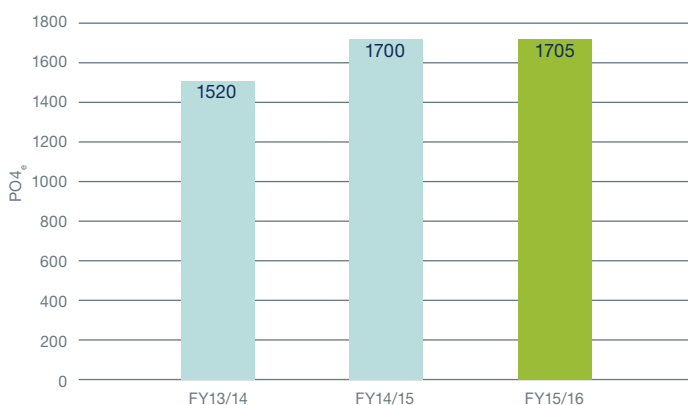
Waste disposal

Waste type	Amount (tonnes*)	Disposal method
Liquid (non-hazardous**)	789,170	Third party landfill***
Liquid (hazardous)	5.0	
Solids (non-hazardous)	1086.3	
Solids (hazardous)	11.22	
Organic solids (non-hazardous)	52.0	Composted
Paper/Card (non-hazardous)	52.5	Recycled
Feed bags	N/A	Currently crushed and stockpiled to be recycled

Notes:

- *Conversion factors from WA Waste Authority (2016) used to calculate weight of volume of sludge removed from hatcheries and bloodwater
- ** Predominately bloodwater from harvest and sludge from hatcheries
- *** Sludge is sent to compost not to landfill as stated
- Table does not include net slab or biological waste

Eutrophication Potential



6. Sustainable Salmon Feed



Tassal is committed to a sustainable approach to sourcing fish feed and aims to reduce wild caught fish feed inputs as much as possible, and produce other inputs with as low a carbon footprint as possible. Understanding the sustainability implications of Salmon feed as part of a sustainable supply chain is critical to minimising our environmental and social impact at a global level. The inclusion of forage fish in fish feed has long been identified as a sustainability issue, as they form an important part of the ecological function as a food source for many marine species.

Salmon feed is a major input into our production process, and is formulated to ensure fish health and growth optimisation and minimise environmental impacts associated throughout the supply chain. Raw materials in Salmon feed consist of protein and fats from marine, land and vegetable sources, carbohydrates from vegetable sources, vitamins and minerals, and astaxanthin, a carotenoid pigment.

In Australia, sustainable alternatives to fishmeal and fish oil can also be sourced from the co-products of Australian animals reared for human consumption

that are prepared according to strict processing parameters to maintain the integrity of the product.

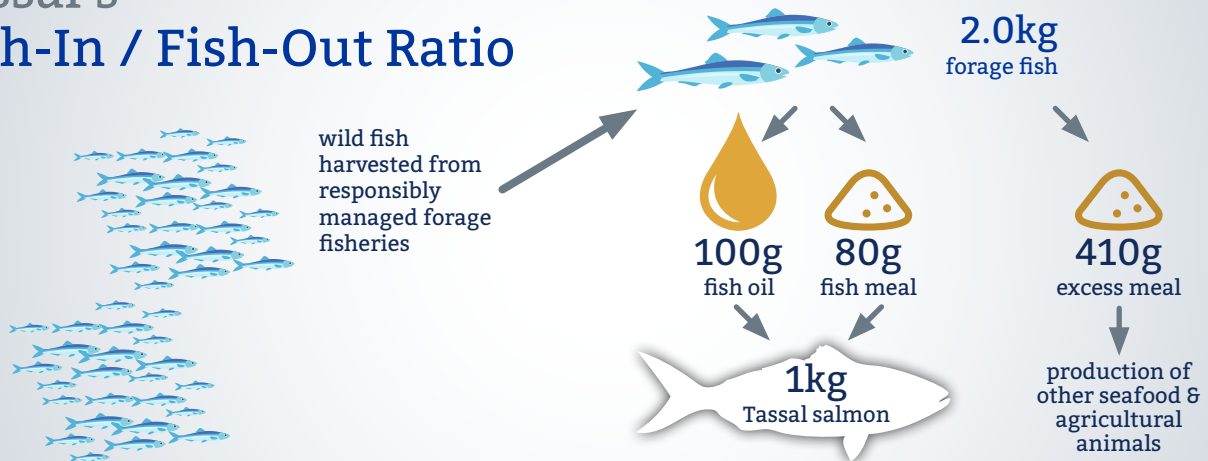
Skretting, our feed supplier, invests significant resources in finding alternatives to fish oil and fish meal. Vegetable alternatives, that give equally good performance in terms of fish welfare, taste and quality of the end product, are increasingly used in fish feed. There are, however, sustainability issues related to vegetable ingredients, an example of which is deforestation in certain regions of the world as the result of soya bean production. Preservation of tropical rain forests is vital as they play a key role in maintaining biodiversity and fixing carbon dioxide from the atmosphere.

Through our partnership with WWF-Australia, Tassal provided initial funding for the development of a Fishery Improvement Project (FIP) for the Peruvian Anchovy Fishery, the largest single species fishery globally, and a globally important fishery for fish ingredients into feed for farmed fish. This project has developed a comprehensive science based plan to improve the fishery towards MSC standards to ensure that this resource is managed to the best sustainability standards.

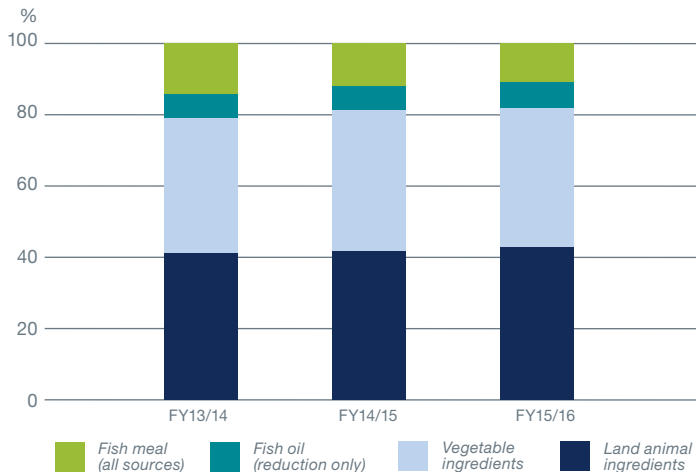
Following this initial investment by WWF-Australia partners, including Tassal, Skretting and Cargill Aqua Nutrition joined together and approached members of the Peruvian fishmeal and fish oil industry to discuss the implementation of a FIP. In cooperation with the Peruvian National Fishery Organisation (Sociedad Nacional De Pesquería), there is now agreement to establish the FIP in Peru, with final action plans currently being established. This highlights the power of collaboration between stakeholders to take steps towards securing the future of the environment.

Tassal has shown a high level of leadership by using market power and investment to deliver conservation gains that far outweigh conservation impacts that might be achieved by simply changing feed sources. This is particularly important due to the size of the industry and this particular fishery. This is an incredibly important fishery for aquaculture feed and that won't change. The only way to make this better is for leaders to invest in improvements in the fishery, as Tassal has done.

Tassal's Fish-In / Fish-Out Ratio



Raw Materials in Tassal Salmon Feed

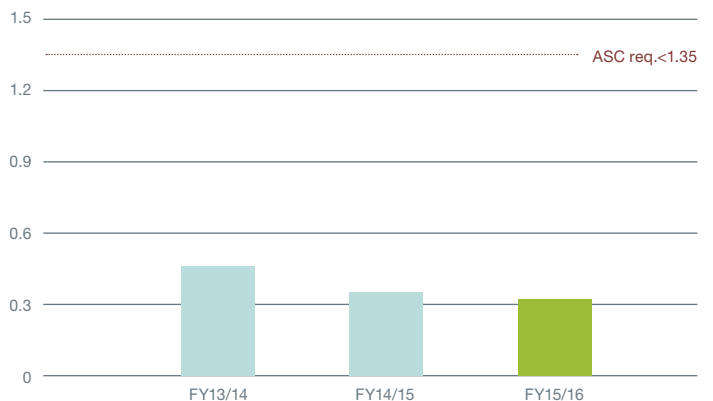


Tassal's Aquaculture Stewardship Certification (ASC) includes criteria that covers the traceability and responsible sourcing of fish feed ingredients. Feed supplier Skretting also has stringent criteria for suppliers regarding the sustainable sourcing of marine ingredients that are an input into fish feed. Over 90% of Skretting's suppliers have signed their Supplier Code of Conduct. Information about Skretting's sustainable sourcing practices can be found at: www.skretting.com/en-AU/sustainability/ingredients/. Skretting is 100% compliant with Tassal's sourcing policy.

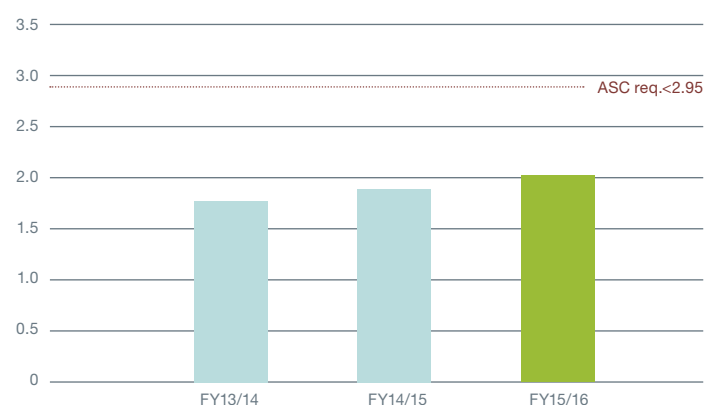
In FY2016, the total inclusion of fish meal in Tassal feeds was reduced by 1% from FY2015, however, the inclusion of fish oil increased by 0.5%. We recognise that there is a fine balance between reducing our reliance on marine ingredients, and minimising our environmental impact, while still maintaining the health of the Salmon and consumer health benefits.

Tassal trials feed ratios and ingredients as well as delivery mechanisms to ensure the best possible outcomes for fish growth while minimising environmental impacts such as excess nitrogen released into the surrounding water. Feed sustainability and feed conversion is an area where we are world leaders, and we continue to look for improvements.

FFDRm for Skretting Australia feeds



FFDRo for Skretting Australia feeds



7. Animal Welfare



The welfare of both our fish and the marine mammals and birds that interact with our farms is of critical importance to Tassal. We have increased wildlife surveillance with a goal to further understand animal populations and behaviours. We have also focused on improving on farm practices and strengthening our exclusion techniques. Ensuring exclusion measures, wildlife management protocols and fish health management plans are appropriately implemented allows us to limit potential impact on wildlife populations, and, as a result, reduce potential sources of stress on our fish so that we maintain healthy populations. There were no incidents of non-compliance with laws and regulations with relation to animal welfare during the reporting year.

Responsible Wildlife Management

Wildlife interactions are a material environmental and social issue for our company and our stakeholders. We understand that as a result of our farm locations we must harmoniously interact with local wildlife.

Tassal employs a high standard of on-farm management practices with the use of passive deterrents and exclusion

infrastructure. We have an internal Wildlife Management System (WMS) that encompasses bird and marine mammal management strategies for all Marine operations. The WMS has a focus on reducing detrimental outcomes that include:

- Injury to wildlife adversely affected by Tassal farming operations that result in close interactions or contact
- Potential injury to Tassal employees, contractors, and visitors when undertaking day to day activities on Tassal Marine leases, and
- Attacks on fish pens causing loss of fish, reduced growth rates and damage to equipment which affects the profitability of the operation.

Seal Interactions

Seal interactions are a significant issue for our marine operations. Impacts include predation of stock, stress in fish and Workplace Health and Safety (WHS) concerns. Seal interactions increase our cost of production, with substantial costs incurred in exclusion technologies, trapping and relocation each year. We are constantly adapting to changing conditions when it comes to interactions between seals and our farms.

In the reporting period, Tassal humanely euthanised, under the State government

approved humane destruction protocol, one identified problem seal from our operations. This was a seal that had territorialised marine farm sites and had become increasingly threatening and aggressive towards our staff.

We also had three seal deaths occur as a result of sedation. There is always an inherent risk of death during sedation of seals due to the activity being carried out in an uncontrolled environment, particularly when seals have extremely high stomach content. There were no injuries or deaths to seals due to transportation as part of the relocation process.

The Aquaculture Stewardship Council (ASC) Salmon Standard places limits on both accidental and intentional seal mortalities. When a lethal incident occurs, we make this information publically available on Tassal's ASC dashboard within 30 days (www.tassal.com.au/sustainability/asc-dashboard/). This information is audited annually by a third party certification body.

Deterrent measures

Relocation events have increased slightly as a result of an operational focus to proactively manage fish welfare and relocate serial offender seals which pose immediate threats to our people and our fish.

When seals are relocated they are under the care of approved seal relocation providers. In the majority of cases, relocations are successful and seals do not return. In the instance of recapture, we try to break the reliance of seals on Salmon farms as a food source through relocation.

Other approved seal deterrents devices including bean bags, scare darts and seal control units (crackers) are used under permit or licence from the DPIPWE Wildlife Management Branch. Tassal does not use acoustic deterrent devices (ADD) or acoustic harassment devices (AHD) as a tool to deter marine mammals from our operations as these devices can cause cetaceans pain, disturbance and displacement from important habitats.

Exclusion technologies

Exclusion is a critical aspect of contemporary marine farming practices within South East Tasmania. Tassal's exclusion technology of choice includes a combination of seal proof bird nets and K-Grid nets. All cage netting is heavily weighted to tension the netting to provide protection against seal predation. The above water surface portion of each cage is covered by a net with a high tensile mesh size of less than 115 mm to prevent seals entering cages. The removal of mortalities from fish cages in a timely fashion also takes away the attraction for seals.

In the reporting period, we continued our roll out of 120 metre K-Grid nets, with the purchase and deployment of 22 nets. K-Grid netting is made of a high tenacity knotless stiffened polyester mesh. The nets have proven to be a successful seal exclusion tool, with no seals or sharks breaching the nets. The roll out of seal proof bird nets also continued in the reporting period with the purchase and deployment of 52 bird nets.

Bird Interactions

Marine farms can have general impacts on birds ranging from habitat modification to entanglement. Tassal has stringent

Seal Interactions				
Year	Relocation events	Euthanised	Accidental death (sedation)	Accidental death (entanglement)
FY2014	90	0	1	5
FY2015	145	0	1	7
FY2016	151	1	3	2

Bird Interactions						
Zone	FY 2014		FY 2015		FY2016	
	Accidental death	Alive and Released	Accidental death	Alive and Released	Accidental death	Alive and Released
Channel Zone	20	317	5	211	38	102
Southern Zone	4	466	2	106	6	135
Eastern Zone	4	188	0	186	10	222
Western Zone	5	80	2	19	0	2
Total	33	951	9	522	54	461

There were no interactions with sharks, whales or dolphins during the reporting year.

internal bird protocols with an aim to mitigate interactions with birds around our operations. The attraction of birds to marine farms can be decreased by removing the opportunity for birds to predate on smaller farmed fish and to scavenge on feed pellets. All of our pens are completely covered by bird exclusion mesh which is supported by a central structure known as a bird stand.

Wildlife Management Officers

Each marine farming zone in the south east has a dedicated Wildlife Management Officer. Tassal's Wildlife Management Officers ensure that all of our operational sites have the necessary resources and training to adequately deal with wildlife in a safe and effective manner.





Salmon Escapes

No wild Atlantic Salmon populations exist in Tasmanian waters, and farmed populations of Salmon are composed of only females, making reproduction in the wild impossible. Research also indicates that escaped Atlantic Salmon do not successfully forage outside of the pens and do not thrive in the wild, meaning they would most likely not survive (Steer and Lyle 2003).

Tassal aims to eliminate stock escapes from marine farms within areas that can be controlled, and to minimise the risk in areas where it cannot. No Salmon escapes occurred throughout our operations during the reporting period and we have not had a reportable escape event since 2013.

We implement protocols to manage the associated risks and significantly reduce the likelihood of Salmon escapes. Our comprehensive Escape Prevention and Response Protocol includes mitigation measures such as:

- A comprehensive diving regime to routinely monitor net integrity, including sub-surface inspection of nets, mooring lines and cage infrastructure
- Daily inspection of aerial bird netting

- Stock transactions are always to be conducted in weather conditions that do not present an unacceptable risk of fish escapes, and
- Staff training.

Unexplained Loss

As a requirement of our Aquaculture Stewardship Council (ASC) certification, Estimated Unexplained Loss (EUL) is calculated at the end of the production cycle for each of our operational zones. Unexplained loss can occur as a result of low level fish losses as a result of predation through the net, or, if we have underestimated the impact of intense seal pressure.

Auditors compare Tassal's EUL values and counter accuracy (98-100%) to verify accounting. For example, if the EUL for a production cycle is greater than the combined margin of error (0-2%) related to fish counts, they will investigate potential sources of error as it could indicate the farm is under reporting mortalities or escapes.

Records of predator incidences and holes in nets discovered during net inspections are recorded daily. Currently, all losses due to predators (predation) are expected to result in mortalities rather than escapes.

Estimated Unexplained Loss (14YC)	
Zone	EUL
Channel	2%
Southern (Dover)	3%
Southern (Huon)	5%
Eastern	5%
Western	3.5%

Fish Health and Welfare

Tassal is committed to the welfare of our Salmon, and ensuring the health of our fish is a top priority. Salmon face various health challenges according to the stage in their life cycle, local environmental variables, and whether they are in a freshwater or saltwater marine environment. Tassal has fish health professionals on staff, including a fish veterinarian, and robust internal Fish Health Management Plans in place, outlining fish health issues and mitigation measures.

Our Zero Harm to Fish program, based on the RSPCA Approved Farming Scheme standards for Salmon, provides a framework for auditing the implementation of these plans, set targets and allows us to identify and manage fish welfare risks. The RSPCA standards aim to ensure that farming practices and fish handling, husbandry and management

are carried out in a low-stress manner and in an environment that allows the fish to exhibit normal swimming and schooling behaviours and to escape aggressive encounters.

Fish welfare risks can be present in a variety of forms, including physical, chemical, physiological and biological. The Zero Harm program drives continuous improvement across all of our sites, resulting in a company culture that prioritises animal welfare at all stages of the fish life cycle.

Antibiotic Use

Our goal is to eliminate antibiotic use and we only ever treat our fish in the best interest of their welfare and under veterinary supervision. Prior to harvest, any Salmon that are treated must go through a lengthy withdrawal period to ensure the antibiotic is cleansed from their system. On occasions, to ensure fish health and welfare, it is necessary to administer antibiotics to specifically identified pens to treat infections or bacterial diseases. Antibiotics are administered by Tassal's veterinary officer via medicated feed and are never administered prophylactically. Antibiotics are fed to a ration to ensure 100% of the feed is eaten and no environmental contamination occurs. If fish are still hungry, unmedicated feed is provided.

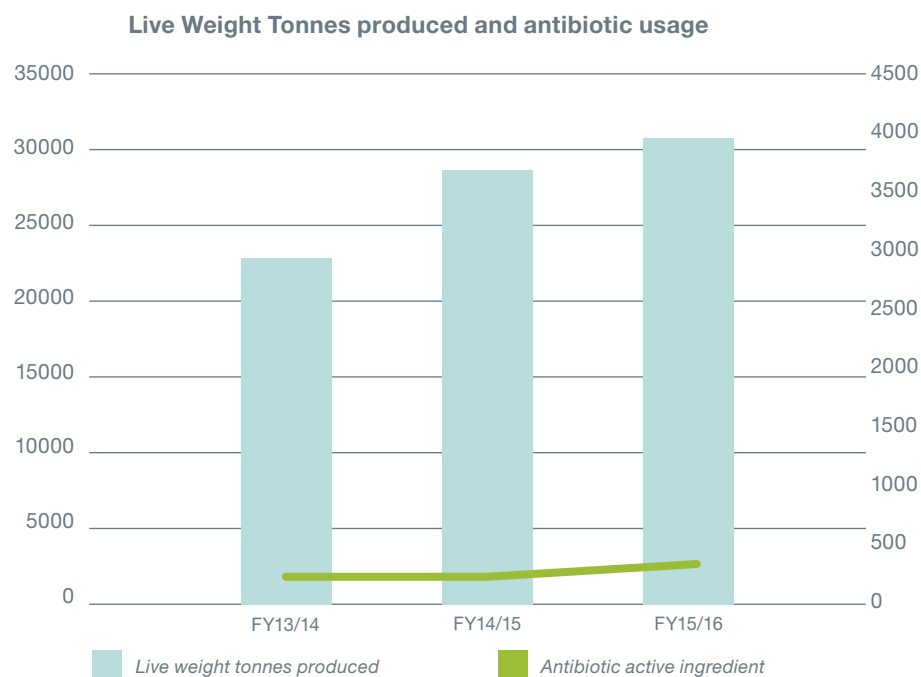
A withdrawal period of between 90 – 120 days is allocated for the fish to metabolise the antibiotic so that there is no longer any detectable antibiotic in the flesh. Fish are not harvested before the end of the withdrawal period and are tested for residues prior to harvest.

Antimicrobial resistance

Antimicrobial resistance refers to the ability of a microorganism such as bacteria, viruses and some parasites to stop the effectiveness of the antimicrobial drug. When this happens, standard treatments become ineffective and infections can persist as they become more difficult to treat. Tassal's mitigation systems include:

Grams antibiotic used per tonne of fish produced			
Year	Marine sites	Hatcheries	Total
FY2014	6.97	0.72	7.69
FY2015	5.44	0.57	6.01
FY2016	8.3	1.53	9.83

Total Kg antibiotic used			
Year	Marine sites	Hatcheries	Total
FY2014	178.2	18.4	196.6
FY2015	156	16.2	172.2
FY2016	254.09	47.026	301.12



- Limiting the use of antimicrobials by vaccinating against bacteria known to affect fish stock: we currently use vaccinations for Aeromonas, Vibrio and Yersinia –intra-peritoneal bacteria
- Prevention through best-practice husbandry: Our Zero Harm to Fish program supports Tassal's philosophy of preventative medicine for fish
- If antibiotics are used, there is justification for its use - affected fish stock must be clinically affected for a treatment to be considered. Testing is required prior to prescribing antimicrobials to know what type of bacteria is infecting the fish
- Regular culture and sensitivity testing is done to ensure that the chosen antimicrobial drug is effective against the pathogen if treatment is necessary
- Monitoring of efficacy - fish are monitored to ensure that the effective dose and duration of antimicrobial

is received and re-tested to ensure that the infection has resolved after treatment.

A stringent protocol is in place to investigate if an antimicrobial treatment is thought to have failed.

Antimicrobial use increased during the report year, as a different selection of antibiotics was selected based on the nature and sensitivity of the bacteria (Yersiniosis and Tenacibaculosis). It is important to use alternative antibiotics to minimise the risk of antibiotic resistance.

Anaesthetic Use

Anaesthetics are used in our marine and freshwater operations for fish sampling, general handling and euthanising fish in hatcheries. The two anaesthetics we use are Benzocaine, which is an anaesthetic used on permit at our hatcheries, and Aqui-S (isoeugenol), a registered product that does not require a withdrawal period.



Fish Disease

As with any animal, fish may be susceptible to various disease, due to specific environmental or geographic conditions. Amoebic Gill Disease (AGD) and Pilchard orthomyxo-virus are the two most prevalent diseases in our marine operations. We are fortunate that the sea lice seen in overseas salmon industries are not present in Tasmanian waters.

Amoebic Gill Disease

Salmon stock at our marine leases in southeast Tasmania periodically require bathing in freshwater to control amoebic gill disease (AGD). Bathing involves towing a cage filled with freshwater contained in a tarpaulin liner from the fill station to the lease area.

Typically, each year class of Salmon requires bathing approximately eight times during its seawater growth. This figure is reducing due to advances in the selective breeding program. Bathing frequency has reduced by 20% in the latest year class, and we have set a target of five bathes by 2018.

To support this goal, Tassal has developed internal business intelligence functions to closely monitor bathing frequency as well as supporting collaborative research programs with the CSIRO on ways to reduce exposure to AGD.

Pilchard orthomyxo-virus

Tassal suffered from losses during the reporting year due to Pilchard ortho-myxovirus (POM-V) in our 15 year class of fish. Pilchard ortho-myxovirus was initially isolated in pilchards as an incidental finding, but it has been since known to cause mortalities in Atlantic Salmon.

As a result, we have taken a closer look at our biosecurity practices to ensure that we eliminate risks of POM-V where possible, and mitigate risks to ensure that the disease does not spread to other susceptible Salmon across other sites.

Tassal continues to support the development of a vaccine against POM-V through the Fish Health Unit (DPIPWE) in Launceston.

Biosecurity

Best practice management of biosecurity is critical to prevent disease incursion that can spread across sites. It is an everyday priority for all on-site staff and a holistic way of viewing fish health. On farm, biosecurity culture is driven by our staff and management. It is important that we are prepared for the potential of disease outbreaks, whether they are emerging diseases or exotic diseases. Biosecurity procedures are outlined in our company's fish health management program and processing plant manuals. Tassal is continuing to strive for this cultural shift across all of our sites.

Biosecurity at Tassal means:

- Keeping fish safe and healthy
- Keeping disease away from our stocks
- Monitoring for early detection of disease, and,
- Responding quickly to minimise impact of disease.

To continuously improve our biosecurity management, during the reporting year, we upskilled staff and improved technical capacity across all of our sites. Particular focus was placed on hygiene, fallow periods, siting, improved robustness of our smolt, and disinfection of facilities and equipment. Our focus on improved capacity in production included daily removal of fish mortalities, and shortening the grow-out cycle of fish to minimise biosecurity risk.

8. People and Communities Message from Kaylene Little, Head of People, Culture and QA



This year has been another ground breaking year for our Tassal Team, now employing more than 1050 people. We continue to be one of Tasmania's largest employers and continue to maintain our official 'Employer of Choice' status. Our focus remains on attracting, developing and maintaining talent, ensuring success for both Tassal and our employees.

On a daily basis I am amazed by the dedication our people bring to the organisation and the passion that is displayed. We are the 'can do safely' people and this attitude defines us. We stand together, and we are proud of our product and what we have achieved. We truly appreciate that our people are vital to sustain a competitive advantage. Our people matter. We work hard in a fast paced environment where no two days are the same, we achieve results and we have fun, loving what we do. We don't always get it right 100% of the time, but we learn from this, move forward and grow.

One thing that I'm particularly proud of is our commitment at Tassal to bring sustainable financial stability and jobs to regional and rural areas where aquaculture is an important part of the area's economy. We place a strong emphasis on employing people from

these local communities to enable people to live and work locally. All this is done in conjunction with sustainable environmental outcomes.

Our new refinery, a fishmeal and fish oil processing facility on farmland just on the outskirts of Triabunna, Tasmania, is a testament to this. The town with a population of approximately 800 was severely impacted by the downturn in the forestry industry when the local woodchip mill closed in 2011. As we all know, when there is no employment for the youth of these small towns, they go away to cities and leave a devastating impact to the social fabric of a town. During the building phase of the plant we sourced construction services and materials locally when it was possible, and we now employ 19 local skilled people in full time jobs. This aids the local economy and community to stay alive and supports growth and employment opportunities.

Across Tassal, we also employ staff on working holiday visas in positions where we are unable to fill vacancies with suitably skilled Australian residents, or when we have not had the volume of suitable Australian residents apply for vacancies. I was delighted to see that the percentage of Australian workers in 2016

has increased to 90% compared to 85% in FY2015.

At Russell Falls 100% of our workforce live and work in the same area, and the Huon Valley and Nubeena stand at 74%. Jobs are definitely important in all of the communities where we operate, but it is not just about the pay packet, it is about the fact that having a job allows confidence, self-belief, creates unity and allows our employees, and their families, to be supported in life's journey.

As we continue to grow through our strategic expansion, so do our geographical locations and as a result of the recent acquisition of De Costi, we have experienced growth in our workforce. Tassal secured jobs for 172 employees at the new Lidcombe NSW based production facility. This resulted in greater terms and conditions for all employees, both new and existing, in line with Tassal's policies and practices.

The acquisition of De Costi brought with it a fair share of challenges working through the transition phase. Fortunately we had a number of dedicated existing Tassal employees who were prepared to relocate both short and long term to lead the change process and embed Tassal's 'can do' attitude and culture.

We place a strong emphasis on developing our workforce and providing opportunities for workers to advance within the company. Key to our ongoing success and sustainability is the need for a skilled, motivated and productive workforce.

Each year, we like to stop and recognise our achievements and celebrate our successes and to recognise the important part our employees, their partners and families play. To this end all of our people look forward to our annual Family Christmas Party and Christmas dinner.

These events are a highlight for me personally each year. Our family Christmas party is all about our families and has a carnival like atmosphere. The 2015 family Christmas party was attended by over 650 employees and their families and provided a great range of entertainment. Everything is supplied by us as a 'thank you' to partners and families for all their support. We use local suppliers and made a donation to the local Rotary charity for running the BBQ.

We take pride in recognising our most prominent achievements for the year along with acknowledging significant contributions from a number of our employees whose actions support the DNA of what makes Tassal successful.

Kaylene Little

Conditions of Employment

We are committed to providing conditions of employment that are competitive and attractive to ensure we attract and retain the best candidates, whilst maintaining our financial viability. All Tassal conditions of employment are consistent with our legal obligations under the relevant legislation and are designed to meet the needs of our business. All employees regardless of their position are covered by the provisions of the NES (National Employment Standards) under the Australian Fair Work Act 2009. All (100%) of employees in aquaculture entry level roles receive above the minimum wage rate (national minimum wage used as comparison).

Diversity and Equal Opportunity

Tassal is committed to being an equal opportunity employer (EOO). We ensure that our selection process encourages equal and diverse opportunities for all. We operate within an environment of 'the right person for each position, regardless of gender', which we believe is a stance respected by all of our employees.

Our Diversity Policy includes our measurement and revision practice and is available at: <http://www.tassal.com.au/governance-policies/>.

Non-discrimination

Tassal is committed to providing an environment which is free from discrimination, harassment and bullying. Our employees have a right to work in an environment that provides them with the opportunity to develop to their full potential and where we all value and respect individual differences.

We base all recruitment and promotional decisions on merit and equity. Discrimination in any form is inconsistent with our company values, Code of Conduct and philosophy of valuing diversity. We take all reasonable steps to prevent discrimination, harassment, bullying and violence from occurring and deal with any grievances promptly and in a confidential manner. There were no formal claims for discrimination during the reporting period.

Learning and Development

We are committed to providing opportunities for our employees to undertake training relevant to their role and business needs.

Each position has a unique set of targets, and training plans are in place for specific tasks within operational positions. All employees have the opportunity to formally request training or further education. We strongly emphasise to our staff when advancement opportunities are available.

Our training aims to:

- Meet or exceed legal and customer obligations where specific licences, tickets or skills are required
- Enable all employees to function effectively and safely within their role
- Provide opportunities for advancement and increased stimulation within the workplace and maximise productivity
- Update current skills through refresher training which occurs on a regular basis
- Meet business goals and targets, and
- Make training available to all employees in our role as an Equal Opportunity Employer.

Regular reviews of training with training providers and internal stakeholders ensure that training remains relevant and suited to job requirements. Turnover data and information obtained from exit interviews informs us of further training that could be provided for us to enhance the contribution of a specific position. Monthly audits of training and licencing are undertaken, and further audits are conducted periodically and ad hoc by government bodies, suppliers and certification bodies.

ROCK Solid Safety Leadership Program

A further seven people enrolled in a Certificate IV in Work Health and Safety through our ROCK Solid Safety Leadership Program during the reporting year. The program, now in its seventh year, has seen 174 employees successfully graduate from nationally recognised qualifications including Diploma of Management, Certificate IV in Frontline Management and Certificate IV in Work Health and Safety.

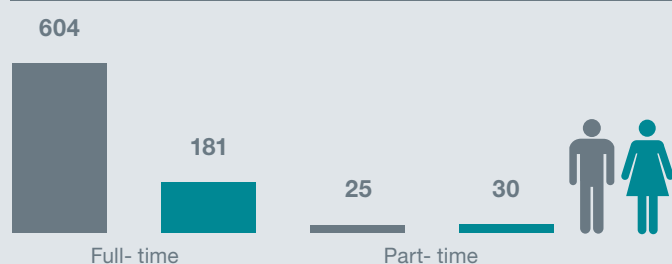
Each year, Tassal offers school-based apprenticeships to interested students in Year 10, 11, or 12 at each of our farm sites. This is a paid employment based training program where students work one to two days per week, training towards a Certificate III in Aquaculture, as well as completing their school studies.

Workforce Snapshot

Gender breakdown



Permanent Employees by Employment Type and Gender

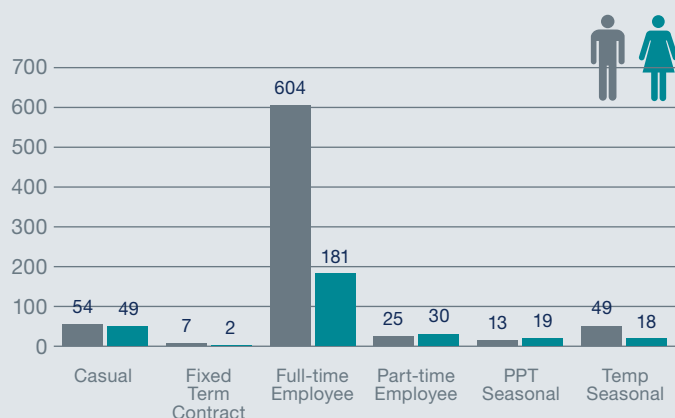


Directors by Gender

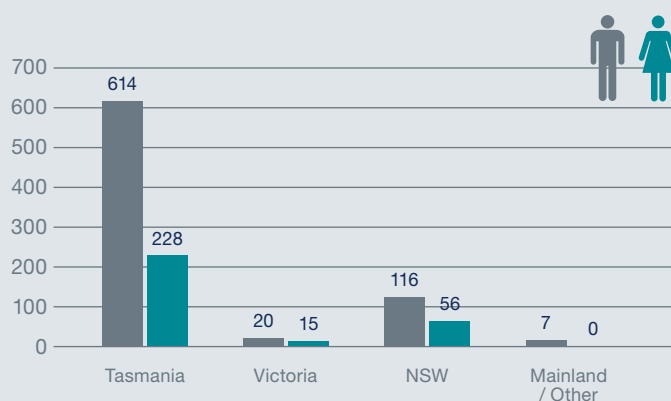


Of Tassal's five directors, four are male, and one is female.
*All directors are over 50 years of age

Employment Type by Gender



Total Workforce by Gender and Location



New Hires by Age, Gender and Region

	Male <30	Female <30	Male 30 – 50	Female 30 – 50	Male >50	Female >50	Total
Tasmania	72	45	67	21	11	4	220
Victoria	1	8	4	1	0	0	14
NSW	14	4	22	7	1	0	48
Total	87	57	93	29	12	4	282

Leavers by Age, Gender and Region

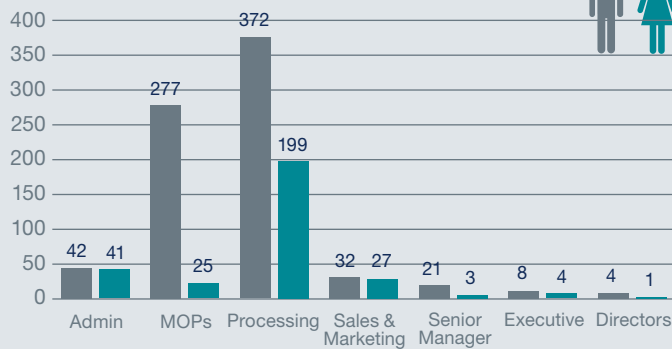
	Male <30	Female <30	Male 30 – 50	Female 30 – 50	Male >50	Female >50	Total
Tasmania	138	116	78	40	16	15	403
Victoria	8	7	4	2	0	0	21
NSW	12	7	13	6	1	4	43
Total	158	130	95	48	17	19	467

Of the 403 leavers from Tasmania: 163 from Huonville, 104 were casuals (of which 30 left due to end of visa) and 29 were seasonal employees, 110 from Channel, 62 were casuals (of which 24 left due to end of visa)

Turnover rate by Age, Gender and Region

	Male <30	Female <30	Male 30 – 50	Female 30 – 50	Male >50	Female >50	Total
Tasmania	27%	13%	8%	14%	6%	12%	12%
Victoria	67%	60%	33%	20%	0%	0%	39%
NSW	42%	36%	11%	6%	0%	0%	14%
Total	30%	23%	9%	13%	5%	11%	14%

Department by Gender



Percentage of Australian Workers

90% Australian Citizens
10% Visa Holders

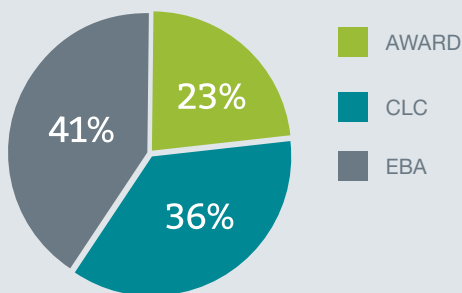
Absenteeism Rate

4.43%

Total training hours per employee

37.22

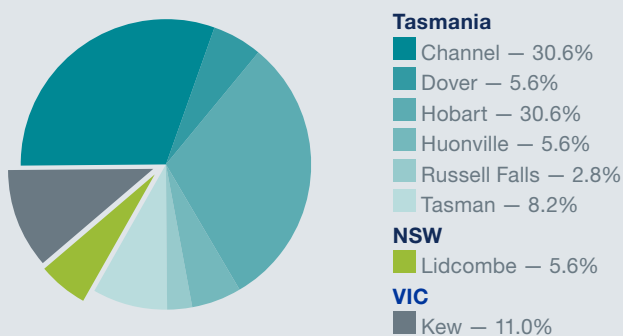
Percentage of Employees covered by Collective Bargaining Agreements



Training hours by Gender:

31.35 (Male) **52** (Female)

Percentage of Senior Managers* hired from local communities at significant locations* of operations



Average Training hours per Employee by Employment Category and Gender

Processing	42	98
Marine Operations	26	14
Administration	12	2
Sales & Marketing	1	1
Senior Manager	1	7
Executive	8	9

* Local and significant locations of operations refer to Tassal Group's key operational areas throughout Australia

* Senior managers are defined as a leader that has been identified as having a significant impact on organisational success across Tassal's strategic priority areas and works closely with the Executive team in developing operational strategic plans to deliver on corporate objectives.

Variation in Employment Numbers

Tassal experienced one significant variation in employment numbers as a result of the annual Dover processing shut down, between the 12th January and 2nd April 2016. The permanent staff either continued to work at Dover; temporarily worked at a different site; took annual leave; or took leave without pay during the shutdown period. Six casual and 58 seasonal employees were employed specifically to work during the season from April 2015 until January 2016. These casual and seasonal employees were provided with notice of termination at the end of the season.

Employee Profile – Matt Cruse

In October 2015, construction was completed on the Triabunna processing facility, located on Tasmania's east coast. The facility processes all fish waste (guts, heads, frames and trims) from our processing factories and the mort fish from farming operations. The refinery produces fish oil and fishmeal which is used in animal food. There are 19 staff employed from the local area.

Matt Cruse is a well-known Triabunna local, having grown up in the small town with his parents and six brothers. He has worked at the plant since October 2015 and is a Team Leader at the facility.

Matt's story

After completing year 10 at Triabunna District High School in 1987, I started my fishing career, working as a deck hand, cray fishing with my father. During this time we fished mainly the rugged west coast of Tassie and at certain times during the year we worked the pristine waters of the east coast and Flinders Island. We'd go away for a couple of weeks at a time, come home for a couple of days, and then head back out on the water again.

After dad's retirement, I pursued my fishing career, along with my brothers, in tuna longlining, scalloping and sharking. This experience lead me to obtaining my Master V and MED 3. In 1999 my first child was born and I took 12 months off from fishing to be with my new family. During this time I skippered a ferry from Triabunna to Maria Island. Eventually I returned to fishing, where I owned and operated my own shark fishing business in Triabunna.

After 25 years of being away from family on the water, I jumped at the opportunity to work locally for Tassal. I truly appreciate the quality time I now get to spend with my family. What I love about Triabunna is the town has a great spirit and energy, and when times are tough, everyone pulls together and looks out for each other. I particularly enjoy the freedom of space and the laid back lifestyle.

In my current role I look after a small production crew, where we work four days on, four days off. I work with a few blokes that I've grown up with and who have been mates all of my life. The plant has had such a positive effect on the town and it's been great to see school leavers from town get jobs here and stay local. My workmates are awesome. We are still a relatively new team but I feel that we work very well together. It also helps that we are all local and have known each other for quite a while. It took me about six months to settle in at Tassal, mainly due to this being my first land based job.



Everyone here helped make my transition an easy one and I must say I thoroughly enjoy working at the refinery and I am excited for the future.

I have enjoyed playing many sports available in our small town, from footy to men's softball and tennis. After playing 20 years of football for Triabunna I was presented with 'life membership' and although I no longer play I am still greatly involved in the club, and it is great to see my son playing for the local team. After retirement from senior football, I now play Masters football for Triabunna and Tasmania. In my free time I also enjoy hunting, recreational fishing and water skiing.

Tassal has had a very positive impact on the local community as they support the cricket club, football club, the Rotary Golf Day and donate product to the local school for fundraising activities.

I am very proud to say that I work for Tassal. They have had such a positive impact locally as an employer and I've found them to be a very supportive, approachable and an all-round great company to work for. The locals and myself are certainly excited about the potential that Tassal could continue to bring to the local area as Tassal is definitely a company on the move!

Stakeholders and Community Engagement Activities

Tassal has developed a solid stakeholder engagement framework over many years, formally beginning in 2009 with the appointment of a dedicated Community Engagement Officer working within the Environment and Sustainability department, and covering all (100%) operational areas of the business. Coupled with a comprehensive community education component, monitoring and responding to questions and complaints has been important aspect towards building community acceptance of the Salmon farming industry.

Pro-active and effective stakeholder engagement is now more important than ever. All individuals and groups that we engage with are considered equally valid which is reflected in our engagement activities.

During the reporting year, the industry has become highly visible in the public eye and vocal and organised anti-Salmon farming campaigns have raised questions about the industry's environmental performance.

We understand that a large business such as Tassal can be difficult to trust, however, we will continue our community engagement activities, relationship building, and transparent communications underpinned by the firm belief that Tasmanian waterways are a shared resource and that accountability regarding business and environmental performance is a more than reasonable expectation of the Australian public.



Tasman Peninsula Community Survey

During the reporting year, a community based survey was mailed out to all residents and ratepayers on the Tasman Peninsula. The purpose of the survey was to understand the breadth of community based issues and concerns regarding Tassal's proposed development in Storm Bay (West of Wedge lease). This was the first time Tassal conducted a comprehensive community survey and we were pleased not only with the level of response, but the breadth of issues raised.

An interesting result from this survey is the insight gained into how respondents obtain information about Salmon farming with the clear majority preferring to use word of mouth, social and mainstream media on which to base their views of

the industry. Only a small proportion of respondents indicated that they obtain information direct from Tassal either via our website or through Tassal information days.

All of the social and environmental issues raised by respondents have already been identified as material issues and are comprehensively addressed in our previous sustainability reports and on the Tassal website. These issues, along with the economic and proposed amendment issues will be directly addressed within an Environmental Impact Statement (EIS) and via information days related to the proposed Storm Bay amendment.

Survey results will be integrated into the EIS and the survey report provided in full as part of the EIS. Results will be made publicly available as part of the statutory engagement process associated with the proposed West of Wedge Island amendment.

ENGAGEMENT ACTIVITIES

	Stakeholder Group	Engagement and Frequency
Employees	One on one meetings and team discussions via Environment and Sustainability team	As required
	Pre audits of sites and assisting with site prep for audits (annual)	Annual
	Head of Sustainability visits all sites to speak with entire organisation regarding certification, updates in site development, environmental issues, fish health and general research and development activities	Annual
Communities and neighbours (to our operations)	Meetings/presentations with local elected representatives (Local Government)	Annual or as required
	One on one resolution of complaints	As required
	Issues based one on one meetings	As required
	Community forums on the West Coast	Two to three times per year
	Sponsorship and donations of community activities	Ongoing
	Information sessions	Annual or as required
	Stakeholder meetings (ASC)	Face to face meetings every three years for each site and written opportunities for feedback annually
	Feedback via formal statutory representation process when amending marine sites	As required
	D'Entrecasteaux & Huon Collaboration – engagement via local events, information transfer	Ongoing
	Talks/presentations to community groups	On request
	Community based marine debris clean-ups	Ad hoc
	Presentations, Q&A sessions & provision of educational materials to schools and other educational institutions	As requested
	Seafest Festival, Triabunna	As requested
Australian public	Senate Standing Committee on Environment and Communications inquiry into the regulation of the fin-fish aquaculture industry in Tasmania.	Once off extended engagement
Indigenous communities	Tassal continues to develop a relationship with the Aboriginal Land Council of Tasmania and is exploring ways to support Tasmanian indigenous communities and culture	Ongoing
Stakeholders in waterways in which we operate (commercial and recreational)	Presentations to clubs	As requested
	Workshops	As requested
	Navigation Risk assessment	Annual
	Channel & Huon Collaboration	Ongoing
	Tasmanian and National Yacht clubs	As requested
Regulators (state and federal governments)	Formal meetings	Ongoing
	Compliance & audit meetings	Ongoing
	Response to complaints meetings	Ongoing
Industry associations	Face to face meetings with association executives including, Tasmanian Seafood Industry Council, Tasmanian Rock Lobster Fisherman's Association, Tasmanian Association for Recreational Fishing	As required – at least annually
Education providers	Working on Water Program, numerous career events and Huon Valley Trade Training Centre	Annual and as requested

ENGAGEMENT ACTIVITIES

	Stakeholder Group	Engagement and Frequency
Tourism bodies	Presentation to East Coast Tasmania Regional Tourism Organisation	As requested
Certification bodies	Engagement throughout audit process and if there are any issues that occur in between scheduled audits	Ongoing
Environmental organisations	Partnership with WWF-Australia	Ongoing regular informal and formal communication
	Southern Coast Care Association of Tasmania- informal communication via events	Ad hoc
	NRM South, Cradle Coast NRM & OceanWatch (National Marine NRM) – informal and formal communication via Huon and Channel Collaboration and membership of OceanWatch National Marine Expert Advisory Group	Ad hoc
	The nature conservancy - Oyster Reef restoration project	As required
Customers and consumers	Social media – issues based online posts and direct feedback to consumers	Three posts go live every week and direct responses as needed.
	Sales people – team meetings and updates on sustainability as required	Weekly
	Website – regular updates including ASC Dashboard	Ongoing
Suppliers	Information sought from suppliers such as copies of certifications, specifications, policies and other quality/food safety information	At least every three years
	Issue non-conformance notifications	Ad hoc
	Conduct supplier audits	Every one to three years

Huon and D'Entrecasteaux Channel Collaboration

The D'Entrecasteaux Channel and Huon Estuary are Tasmania's most treasured waterways – they host more Tasmanian recreational fishers and boaters than any other in Tasmania, and with thriving commercial operators and growing residential development, it is critical that the area's natural values are managed effectively.

During the reporting year, Tassal signed an innovative partnership agreement with industry, local government and natural resource managers to support and enhance the natural diversity, improve the condition of and raise community understanding of the natural values of the D'Entrecasteaux Channel and Huon Estuary. Tassal is a proud founding partner of the project, which began in 2012. We are pleased to be part of the ongoing growth and formalisation of this valuable program. By partnering with local councils, NRM organisations, TasWater and industry players, we will



be doing our part to improve the natural values of these waterways, which are such an important part of our business.

The D'Entrecasteaux and Huon Collaboration has built a strong foundation over the last 5 years; in 2016, the Collaboration's focus has been on building a robust governance structure, sharing waterway information and facilitating on-ground projects – concentrating largely on marine debris projects with community and industry support. The Collaboration produces

a bi-annual report card on waterway condition, based on best available scientific advice. The first of these report cards was released in 2016. The report card concentrates on water quality and sediment health, pollution types and sources, swimming and seafood safety, coastal and marine habitats, and climate.

Further information on the work of the Collaboration, and results of the first report card is available at www.ourwaterway.com.au.

Tassal's Giving Program

As a company with a significant presence in Tasmania's rural and regional towns, we take our responsibility in supporting community activities seriously. Tassal donated approximately \$163,500 to community based organisations, schools, sporting groups and charities in the reporting period.

Schools are at the heart of both city and regional communities which is why Tassal supports local school activities wherever possible. During the reporting year, Tassal supported the following schools with either financial or product donations.

Sacred Heart Catholic School, Geeveston
Triabunna District School
Orford Primary School
Fahan, Hobart
The Friends School, Hobart
South Arm Primary School
Dunalley Primary School
St Aloysius, Blackmans Bay



Woodbridge District High School
Bellerive Primary School
Snug Primary School
Margate Primary School
Strahan Primary School
Huonville District High School
Snug Primary School
Dover District High School

Organisations and Events supported by Tassal (via financial or product donation)

This year Tassal assisted approximately 250 organisations via financial or product donation to a diverse range of organisations that make a difference in Tasmania. These include:

Stay Chatty Ball
Tasmanian Sharpie Association
Bruny Island Art Prize
Margate Rotary
Working on Water
Bream Creek Show
Strahan Christmas decorations
Kingston Beach Surf Lifesaving club
Wooden Boat Festival
Kingston Beach Gold Club
Seafest, Triabunna
Huonville Relay for Life
Clarence Anglers
Summerleas Cricket Club
Western Tasmania Cricket Association
Geeveston Bowls Club Inc.

Derwent Sailing Squadron
Kingborough Bowls Club
Launceston Rotary
Huon Valley Little Athletics Club
Derwent Valley Autumn Festival
Kettering yacht club
Snug Cricket Club
Scottish Ball
Franklin Working Waterfront Association
Koonya Garlic Festival
Active Strahan
Tasmanian Aboriginal Centre
Tasmanian Regional Arts
Tasman Dragons Youth Group
Geeveston Community Development Association



Triabunna Mens Shed
Tasman Regatta
Triathlon South
Tasman Peninsula Football Club
Snug retirement village
Carts Fore A Cause
Mt Lyell Strahan annual picnic
Barnes Bay Regatta
Huon Agricultural Society
Tasmanian Young Achiever Awards
Kingborough Ocean Swim Club
Channel Football Club
Blackmans Bay Scouts
Huon District Pony & Riding Club
Huon Art Exhibitions Group

Careers Events

As our industry expands, it's important to work with educators and other community service providers to create pathways to a career in aquaculture.

The Working on Water Program was created in 2008 by the Tasmanian Seafood Industry Council (TSIC) to introduce students from Years 9 and 10 to a wide range of career opportunities in the marine sector, including Salmon aquaculture. Tassal has been a proud supporter since inception, working collaboratively with TSIC other marine sectors and the Tasmanian Education Department to bring this program to students each year.

Tassal also participates in career days on request and works in partnership with the Huon Valley Trade Training centre to provide resources and valuable training opportunities to staff and students.



Community Complaints

We value strong stakeholder relationships and recognise that they are essential to the success of our business. We have an internal complaint policy with an objective to maintain the support and goodwill of neighbours surrounding our operations, and ensure timely resolution of any grievances received.

We take pride in our excellent working relationship with our neighbours. Complaints are received via our website, email, phone and word of mouth. During the reporting year, we received eight complaints about noise, relating to four different operational locations. Each complaint was responded to promptly and either mitigated through works on vessels and machinery or a change in operational practices. On one occasion, this was not possible and the complainant was informed of the date that the specific works would end.

Three complaints were received regarding marine debris and farm staff responded quickly. Two complaints regarding odour from land based facilities were received, along with two complaints about security and navigation lighting on one lease. Traffic concerns resulting from Tassal workers commuting to and from work along one narrow country road has been the subject of one complaint, as has a temporarily moored barge which caused a visual concern for one of our neighbours.

No fines or sanctions due to community complaints were incurred by Tassal during the reporting year.

9. Workplace Health and Safety



Tassal believes that safety is everyone's responsibility and aims to have everyone employed as an effective safety leader. We have continued on our journey to create an interdependent workforce that cares for, takes care, and is safety focused through our Zero Harm for People platform. Our safety performance has again improved, yet, with our core value of Zero Harm, we hold ourselves accountable for every injury and consider our performance is unacceptable until we achieve Zero Harm.

Our Zero Harm for People program has been implemented across Tassal's new De Costi site, ensuring consistency of safety procedures across our business. During the reporting period we appointed a Senior WHS Advisor for the site, and our Occupational Health and Safety accreditations (AS 4801 and OHS AS 18001:2007) were extended to include De Costi in their scope. The next step will be to extend the Rock Safety Leadership Program to the De Costi site.

Work Health and Safety Management System

Tassal's Work Health and Safety Management System (WHSMS) acts as a reference for managers and staff to assist them to conduct their everyday duties safely. The system covers all aspects of workplace health and safety (WHS) that are relevant to Tassal operations.

Each operational site also has a dedicated Compliance Coordinator to support management in leading the implementation of the WHSMS. The WHS team of advisors and specialists act as a support service to staff for compliance related matters or to escalate issues.

This team conducts two scorecards (audits) that drive the WHS system process:

WHS Compliance Scorecard

The compliance scorecard focuses on the rules and regulations implemented by national and state WHS legislation that is interwoven into Tassal's own WHSMS and subsequent policies and procedures.

The five key scorecard components are:

1. Hazardous substances
2. Plant machinery and equipment
3. Site facilities and safety
4. WHSMS (administration), and
5. Emergency preparedness.

We achieved 95% on our WHS Compliance Scorecard during the reporting year.

Driving the Safety Culture Scorecard

The leadership scorecard has been established to track the drivers of the overall WHS leadership culture and reflect what staff have learnt through their safety leadership course (Certificates IV in WHS and/or Frontline Management).

If we encourage the right behaviour and push for continuous improvement in safety, less incidents mean less injury or harm to our employees. Scorecard targets are set for management of the sites that is adjusted year on year.

Results are collated monthly for every site along with other key WHS indicators such as training and licencing compliance, MTIFR, LTIFR and TRIFR, and made available to managers and staff, both within and between sites.

This peer review process can act as a method of consultation, enforcement and sometimes competitiveness that is constructive in pushing for best practice. Aggressive targets for lead and lag indicators also reflect the company's commitment to Zero Harm.

We achieved 92% on our Driving the Safety Culture Scorecard during the reporting year.

Scorecard App.

To assist with completing Tassal's WHS scorecards, in collaboration between Tassal's WHS team, IT department and a third party developer, we developed a purpose-built application for portable electronic devices. The 'app' allows the auditor to complete the 'WHS Compliance' and 'Driving the Safety Culture' scorecards for any given site in real-time. The auditor now has the capability take photos and load text as the inspection is taking place, providing functionality in the field. A comprehensive report is produced for the site manager along with data-points being uploaded to a central database. This data feeds into our WHS Dashboard, allowing us to make decisions swiftly using real-time and valid data. This is a valuable management tool that makes all WHS data available to all employees.

Induction and Training

All staff (100%) undergo a formal WHS induction process at the beginning of employment where they are introduced to our internal hazard identification, risk assessment and control procedures. Training and induction coordinators take each employee through a job safety analysis (JSA) scenario to encourage the learning process. Employees must show evidence of understanding Tassal's WHS policies, procedures and safety systems.

An individualised safety training program is developed for each employee in



conjunction with the training and induction coordinator and employee manager. At the conclusion of on-the-job training against specific task breakdowns, the employee's manager will sign off on the employee's competency. All sign offs are checked, and staff are observed undertaking specific tasks during WHS compliance audits

Contractor Management

WHS is a focus throughout the life-cycle of the contractor management process to ensure that all tasks are completed safely, whether the task is considered lower risk or high risk, such as working with cranes, trenching, and asbestos removal. This life-cycle approach to contractor management is integral to Tassal's Zero Harm aspiration and facilitates management of the contractor selection process, the integration of the contractor to the site and their ultimate health and safety. Contractor management is an involved process for management that first begins with a risk assessment through a job safety analysis (JSA). A JSA is required for all contractor activity unless conducted within a designated workshop.

Tassal has developed a 'Contractor Pack' that is to be completed and sent back to each relevant site. The pack asks leading questions about the contractor's ability to complete the job safely. After the selection process, approved contractors are inducted, must complete a job safety

analysis or safe work method statement for the specific task at hand and sign in as per procedure when on site.

Tassal employed 374 contractors throughout the business in the reporting year.

ROCK Safety Leadership Program

Tassal's ROCK (Resilience, Opportunity, Communication and Knowledge) WHS leadership program has now been established for several years. The program was initially rolled out to executives, followed by the senior management team. Our managers are expected to lead the way by implementing the tools learnt in leadership, management and WHS. Building on the program's successful outcomes, we will continue to roll out the ROCK leadership program to supervisors, team leaders and others within Tassal.

Personal Protective Equipment (PPE)

We have developed an internal Personal Protective Equipment (PPE) safety procedure that outlines Tassal's commitment to provide PPE for work requiring control against health and safety hazards. The procedure outlines the responsibility of workers to ensure that PPE is worn as required, is in good condition and is stored appropriately.

The use, availability and correct storage of PPE is checked during compliance audits and safety observation checks by managers and team leaders.

Safe Diving Operations

All staff undertaking diving operations require the correct Australian Diver Accreditation Scheme (ADAS) licence as per Tassal's licencing requirement procedures. All new divers are required to undergo on-site training using Tassal's diving procedures and equipment. Over a period of weeks the diver is signed off against all tasks at the discretion of the Dive Team Leader to ensure competence.

WHS Consultative Arrangements

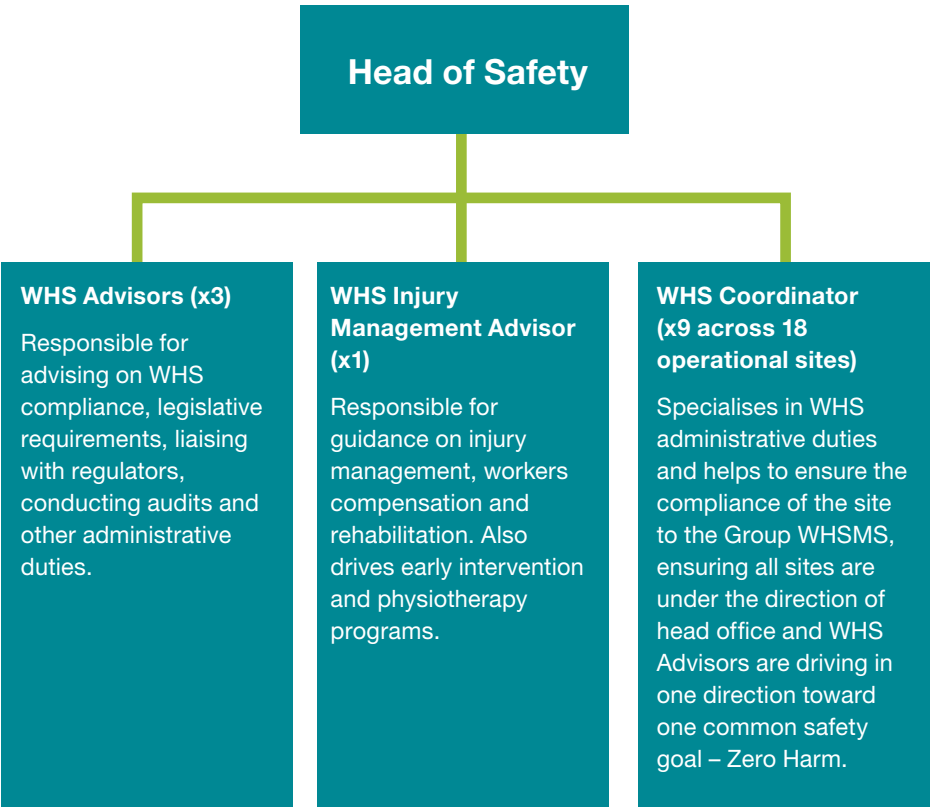
Tassal's WHS system aims to provide a platform for and encourage consultation. We have an internal procedure that guides management and staff through the WHS consultation process. Each work site has an appointed WHS Committee that meets quarterly at a minimum. If the site elects a Health and Safety Representative, then that site must form a Safety Work Group as per WHS national and state regulations.

These working groups and committees are required to invite all staff for consultation, and the groups provide a valuable opportunity to discuss workplace hazards and risk, control measures and accountabilities. Feedback received is recorded in meeting minutes and placed on the site's safety notice board.

Tassal takes consultation and communication seriously and all (100%) employees are to be involved in the hazard identification, risk assessment and control process. Our Processing sites meet for safety toolbox meetings at least fortnightly while Marine Operations sites have daily toolbox meetings to discuss WHS issues.



Tassal's WHS Team



WHS Innovations

Grab-Hook

The creation of a 'grab-hook' for our heavy work vessels has been a high-risk activity at the forefront of WHS innovation within Tassal. A clamping claw that substitutes the traditional hook mounted to cranes has been attached to a rotating disc that mounts into the hydraulic system at the end of the crane for operation. This automated grab hook removes the requirement for employees to be anywhere near the danger zone surrounding a heavy lift. The hook removes the need for employees to manually hook and un-hook equipment risking crush or hit injuries. Heavy loads up to six tonnes can be safely lifted over the deck and released while staff remain safely away. This innovation required the collaboration of the maintenance team, WHS team, operations management and third party engineers, fabricators, hydraulics and rigging specialists.

Walkway implementation

Tassal is in the process of rolling out walkways around all polar-circle cages to reduce slip and trip risk. Implementation of the walkways will also assist us to retain our ageing workforce within Marine Operations by making it easier for staff to work in an often harsh marine environment. We expect this to be completed by 2023.

Fleet Standardisation

We are continuing our ambitious plan of standardisation across our entire fleet with capstans, cranes and winches being fitted with standard controls, signage and function (to be completed approximately 2023). We continue to build new vessels within our fleet that maintains a high standard of functional similarity. Vessels and their capstans and cranes have been standardised for several years now. Purpose built marine cranes are being fitted to the entire fleet as older cranes become due for replacement or a new build is undertaken. This allows for simpler maintenance, repair and usability by staff thereby reducing the risk of incident.



Industry Best Practice

All WHS employees receive regular communication from relevant industry bodies including the Australian Maritime Safety Authority (AMSA), WorkSafe Tasmania and the Safety Institute of Australia (SIA). Employees attend Aquaculture Conferences internationally and keep abreast of WHS initiatives during these networking events. Zero regulatory interventions have occurred in the reporting period. Tassal continues to collaborate with business competitors to determine industry best practice for our employees.

WHS Risks

Muscle strain and being hit by or hitting objects were the top three causes of injury in the reporting period. Muscle strain is a more frequent injury but not necessarily the largest risk Tassal faces. Being hit by or hitting objects carries a potentially greater consequence and therefore more overall risk to the business. Tassal's commercial facilities each carry separate risks depending on the nature of their operation.

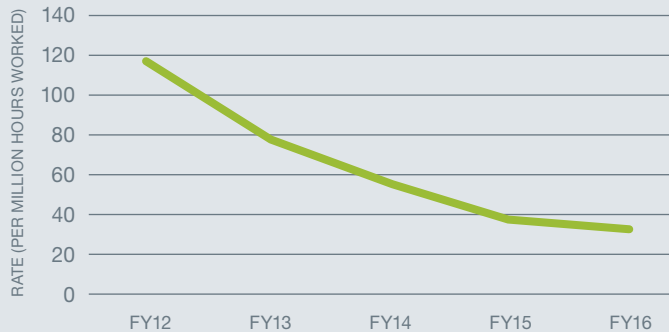
Within Tassal's WHS Management System each site must build and maintain a Risk Register to detail these risks which assists to identify the high risk activities. This register is reviewed by the sites and Tassal WHS Advisors at least annually and any new risks are entered immediately.

No Tassal workers have a high incidence or high risk of disease related to their occupation.

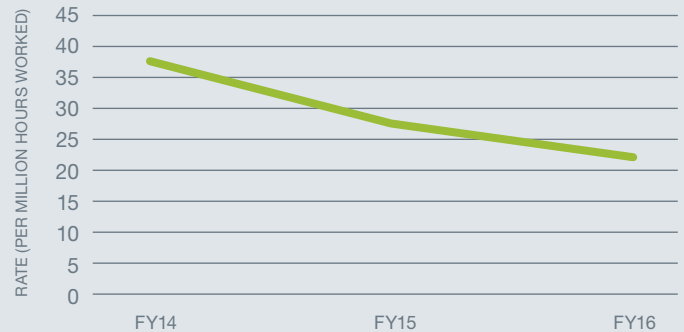
Safety Snapshot

Total Recordable Injury Frequency Rate (TRIFR)

Tassal



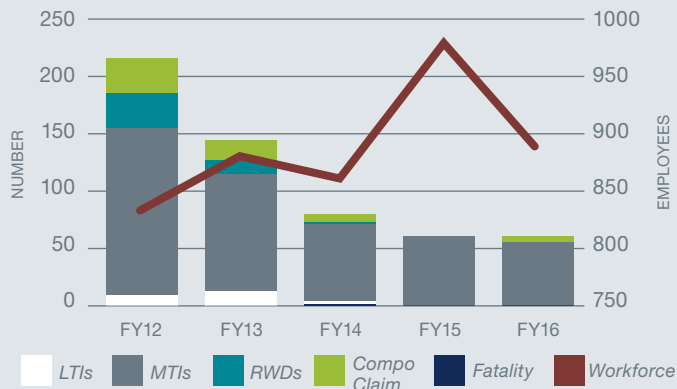
De Costi



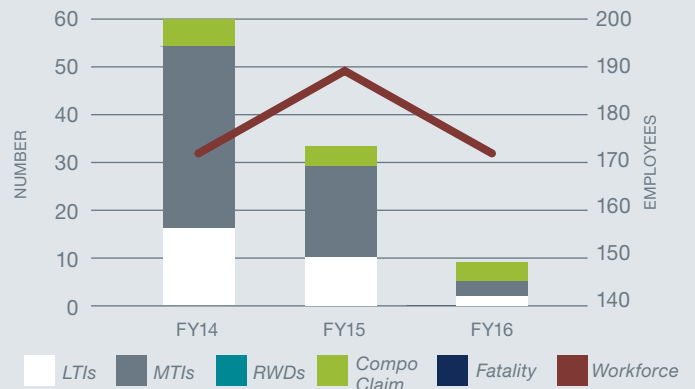
Note: For the 2015/2016 reporting year, we have represented all Tassal and De Costi data separately. From 2016/2017, all data will be combined as one dataset.

WHS Lag indicators and Workforce

Tassal

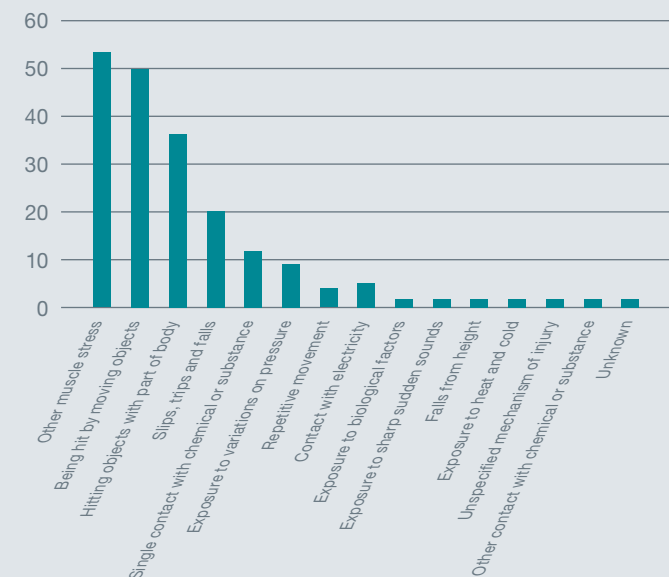


De Costi

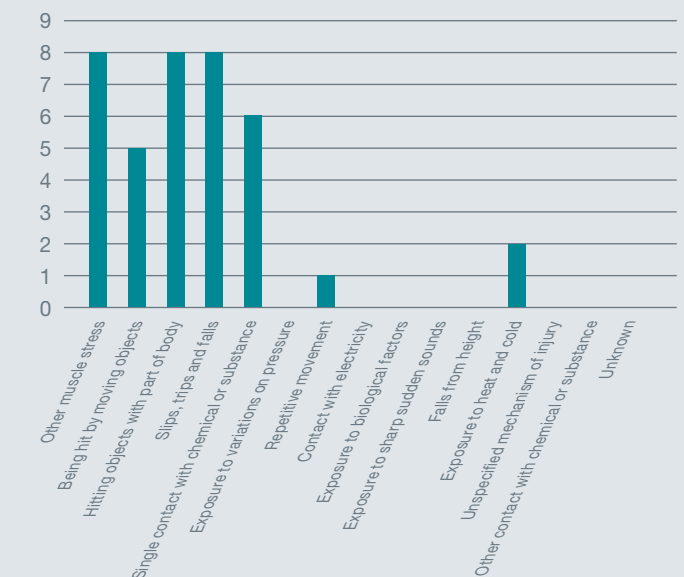


Mechanisms of Incident

Tassal



De Costi



10. Quality Assurance



Tassal's focus on quality and food safety is supported by third party certified Quality Systems, combined with an ongoing commitment to continuous improvement. Our objective is to have a level of food safety, quality, consistency and reliability of supply that will equal or surpass the expectations of our most critical customer and consumer. These objectives can only be achieved with management support, effective resources and each employee taking ownership for product quality and food safety.

The involvement and dedication of our employees to Food Safety and Quality ensures Tassal's reputation for safe food and quality products is maintained and enhanced. We aim to continually achieve a standard of product which will comply

with all specifications, standards and contractual obligations.

Once again we have had a year free from any food safety related product recalls, across all products and all sites.

Integrating De Costi into Quality Assurance

Fully integrating the De Costi team was a key focus for the Quality Team during the reporting period. One of the first tasks undertaken was to establish the team structure for the site, which required additional quality staff being employed at De Costi. A six month secondment to De Costi of a Margate team member proved invaluable in implementing Tassal's new quality team structure and Tassal quality procedures.

De Costi's wide range of Seafood species and suppliers has provided us with both opportunities and challenges. Production specifications for all of the De Costi core Seafood products have been developed or improved to ensure that Tassal is providing customers and consumers with a consistent range of quality products that align with our commitment to sourcing sustainable and responsible Seafood.

Assessing De Costi Seafood suppliers and developing relationships with them has also been a focus, to ensure that we understand this new extended supply chain within the business.

Fish Quality Monitoring

Our marine operations team puts an enormous amount of energy and commitment into growing Salmon to provide our value-added sites and customers with the highest quality fish. The monitoring and feedback on the quality of the fish post-harvest provides vital information for the team to be able to identify opportunities for improvement.

Our fish quality monitoring program follows the fish from farm through harvest, wet processing and to value adding. Quality data is collected at each of these points and collated.

The development of an internal Fish Quality dashboard this year has provided marine operations, as well as other areas of the business with up to date and easy to analyse information on the quality of each harvest. The dashboard tracks parameters such as colour, flesh firmness, gapping, and bruising.

In line with Tassal's Zero Harm philosophy, the Zero Harm for Consumers platform, launched during the reporting year, ensures that we continue to drive continuous improvement throughout our supply chain. The program includes an ongoing consumer feedback system where we log and investigate negative feedback and review trends at monthly site quality meetings. We have implemented a trending system at De Costi to streamline the process.

Number of negative reports*

4	4	106	24	19	5	67	42	18	7	157	26	30	71	8	24	55	208	3	33	20	931
Temperature	Blemishes	Bones	Burst Bags	Colour/Discolouration	Cooking Instructions	Dry/Tough/Chewy	Foreign Objects	Gaping/Soft/Oily	Misleading Description	Other	Packaging Issues	Poor Presentation	Salt	Size/Shape/Appearance	Slicing, Slice Thickness	Smell	Taste	Trimming/Smoking	Use By Date Issues	Weight Issues	Total

*Data refers to feedback on traditional Tassal Salmon only. We aim to incorporate De Costi Seafood products into this data in the next reporting year.

Number of positive reports*

3	2	1	27	1	34
Miscellaneous	Made in Australia	Salt	Taste	Zip Lock	Total



New Product Development

Tassal's quality department has this year gained responsibility for the operational function of new product development (NPD), previously held within the marketing department, which continues to be responsible for the creative elements of NPD. This transition was made as we recognised that the creative and operational pillars of NPD are unique and require different skills to facilitate success.

The creative team in marketing brings the innovation, originality, imagination and inspiration to Tassal's new products, whereas the operational team in quality brings the structure, rationale, analytical assessment, practical and pragmatic solutions to ensure the successful product launch of viable products.

Compliance with product and service labelling requirements

All artwork and labels for products produced by Tassal are reviewed annually to ensure that they comply with all current standards and legislations (Australian New Zealand Food Standards Code, National Trade Measurements Regulation 2009, Competition and Consumer Act 2010 and Department of Agriculture and Water Resources regulations).

There are a range of internal processes in place to ensure that we comply with the Australian Competition and Consumer Commission (ACCC) Competition and Consumer Act 2010 which covers a range of aspects from product safety, consumer rights, pricing and advertising.

A detailed and concise internal process is also in place to ensure that all our products meet food safety Australia & New Zealand (FSANZ) guidelines.

All new artwork is reviewed by an internal artwork approval group prior to any packaging being approved including quality, legal, production and marketing. In March 2016 the Australian and New Zealand Food Standards Code was revised and we reviewed all our artwork checks and review processes in response to this.

There were no incidents of non-compliance with regulations concerning product labelling or marketing communications during the reporting year.

In the reporting period we received one non-conformance for a De Costi branded product. This non-conformance was in relation to the labelling of oysters for retail sale, where the NSW Food Authority requirement is to include harvest information, such as harvest date and harvest area. This additional information was added to the DeCosti branded oysters mid-2016 after an approved run out period of the previous labels.

Internally we identified that Salt Reduced 90g packaging had been incorrectly printed with the country of origin statement as 'Product of Australia' and not 'Made in Australia'. This was corrected at the next print run of packaging.

Promoting a Healthy Food Choice

Tassal is involved in a wide range of marketing communications, community programs and partnerships across

Australia that are directly related to increasing awareness and promoting healthy lifestyle choices. Salmon and Seafood are healthy, low fat and nutrient rich sources of protein.

Our marketing communications programs are designed to encourage Australians to incorporate more Salmon and Seafood into their meal repertoires and highlight the benefits of making these choices as part of a healthy lifestyle. Tassal's website and social media platforms provide inspiration and access to a wide range of recipes which further communicate Salmon and Seafood versatility in different meal types across various occasions.

Hawthorn Football Club Partnership

Tassal has partnered with Hawthorn Football Club to assist in educating players and their supporters on healthy eating with Tassal Salmon. Along with Hawthorn Football Club's nutritionist, Tassal hosts masterclasses in how Salmon can play a key role in an everyday healthy and balanced diet through cooking classes and demonstrations.

Salmon Shop Programs

The Tassal Salmon Shop hosts a number of events and programs throughout the year designed to increase understanding nutrition, balanced diets and healthy lifestyles. These events include cooking classes, demonstrations and product sampling of our Salmon for a range of community groups including schools, sporting clubs and local community groups.

11. Glossary

2030 Agenda for Sustainable Development

The official name for the United Nations Sustainable Development Goals (see Sustainable Development Goals).

Aboriginal Land Council of Tasmania

A statutory authority established under the Aboriginal Lands Act 1995 (Tas) to act as a custodian of parcels of land returned to the Tasmanian Aboriginal community.

Adaptive Management

A systematic approach for improving resource management by learning from management outcomes.

Aeromonas

A bacterial disease of salmonids.

Amoebic Gill Disease (AGD)

Caused by *Neoparamoeba perurans*, the most important amoeba in cultured fish.

Antifoulant

A substance designed to discourage the growth of fouling organisms.

Antimicrobial

A group of drugs that includes antibiotics, antifungals, antiprotozoals, and antivirals.

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.

Aquaculture Improvement Project (AIP)

An alliance of producers, processors, suppliers, and buyers working together to address sustainability issues in a fish or prawn farming zone.

ARA Code of Practice

Australian Renderers Association Inc. Code of Practice

AS/NZ 4801

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.

Astaxanthin

A carotenoid closely related to beta-carotene that acts as an antioxidant that promotes good fish health and provides a rich colour.

ASX Corporate Governance Principles and Recommendations

The benchmark for good corporate governance in Australia.

ATLR

Average Time Lost Rate.

ATP-ase

An enzyme involved in the smoltification process.

Australian Diver Accreditation Scheme (ADAS)

An occupational diving certification.

Beggiatoa

A colourless, sulphur-storing bacterium belonging to the Gammaproteobacteria.

Best Aquaculture Practices (BAP)

A third party audited world recognised environmental standard.

Benthic

Ecological region at the lowest level of a body of water.

Benthic compliance

Compliance with benthic conditions relating to the environmental management in and around finfish farms as set by the Marine Farming Branch of DPIPWE.

Benthos

Organisms that live on or in the bottom of a body of water.

Benthic invertebrate communities

See benthos.

Biophysical

Living things such as plants and animals, and non-living things such as rocks, soils and water.

Biomass

A measure of weight.

Biosecurity

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

Broadscale monitoring

Monitoring that is conducted at distance further afield than the marine farming zone to assess detectable levels of change in a region.

Broodstock

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

Capitellid worm

A polychaete worm of the family Capitellidae.

Capstan

A capstan is a hydraulic or electrically driven deck machine used to pull heavy loads with ease.

Carbon footprint

The amount of carbon dioxide released into the atmosphere as a result of activities.

Carotenoid

Any of a class of mainly yellow, orange, or red fat-soluble pigments, including carotene, which give colour to living organisms.

Chain of Custody (CoC)

The MSC/ASC Chain of Custody standard is a traceability and segregation standard applicable to the full supply chain from a certified fishery or farm to final sale.

CO₂e

Carbon dioxide equivalent is a measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

Coles Food Manufacturing Supplier Requirements (CFMSR)

Coles store own set of supplier requirements.

Coles Supplier Requirements (CSR)

An additional set of Coles store supplier requirements that are designed to enhance the Coles brand protection program and address known issues/areas of customer concern.

Conformity Assessment Body (CAB)

Third party impartial conformity assessment bodies that can certify product, process or services, management systems or persons.

DA

Department of Agriculture.

Depositional modelling (DEPOMOD)

A model which predicts the deposition of faecal and feed deposition with site specific information including current velocity and direction, depth and husbandry characteristics such as feed input and cage layouts.

Dissolved oxygen (DO)

Amount of oxygen dissolved (and hence available to sustain marine life) in a body of water. DO is the most important indicator of the health of a water body and its capacity to support a balanced aquatic ecosystem of plants and animals.

Dorvilleid polychaete

An opportunistic polychaete worm that is naturally occurring in the marine environment.

Ecosystem

A biological community of interacting organisms and their physical environment.

Environmental Defenders Office (EDO Tasmania)

A non-profit community legal centre advising on environmental and planning law.

Environmental Impact Statement (EIS)

A document prepared to describe the effects for proposed activities on the environment.

Environmental Protection and Biodiversity Conservation (EPBC) Act

A legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places.

Estimated Unexplained Loss (EUL)

Calculated at the end of a production cycle as: Unexplained loss = stocking count – harvest count – mortalities – other known escapes.

Eutrophication

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

Fallowing

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

Feedpipe

90mm polyethylene pipe through which feed is pneumatically transported to fish pens from a feed barge.

Fish Feed Dependency Ratio (FFDR)

A measure of the quantity of wild (forage) fish used to grow a defined quantity of farmed fish. FFDR is the quantity of wild fish used per quantity of cultured fish produced. This measure can be calculated based on fish meal (FM) or fish oil (FO).

FFDRm

Fishmeal Forage Fish Dependency Ration (FFDRm): formula available in ASC Salmon Standard Version 1.0 (available at: http://www.asc-aqua.org/upload/ASC%20Salmon%20Standard_v1.0.pdf).

FFDRo

Fish oil Forage Fish Dependency Ratio (FFDRo): formula available in ASC Salmon Standard Version 1.0 (available at: http://www.asc-aqua.org/upload/ASC%20Salmon%20Standard_v1.0.pdf).

Fin-fish

Free swimming fish with fins as opposed to less motile crustaceans or molluscs.

Fisheries Improvement Project (FIP)

A FIP is an alliance of stakeholders - retailers, processors, producers and/or catchers that comes together to resolve problems within a specific fishery or improve some specific aspect of the fishery that requires attention.

Fishmeal

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.

Food and Agriculture Organization of the United Nations (FAO)

An intergovernmental organization that aims to meet the demands posed by major global trends in agricultural development and challenges faced by member nations

Forage fish

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

Freshwater hatchery

A freshwater facility where eggs are hatched under artificial conditions.

Freshwater operation

Aquaculture that occurs in a freshwater system.

Genetically Modified Organism (GMO)

Any organism whose genome has been altered by the techniques of genetic engineering so that its' DNA contains one or more genes not normally found there.

Genome

The complete set of genes or genetic material present in a cell or organism.

Giant Kelp (Macrocystis pyrifera)

Large, canopy forming algae which grow in dense beds along the inshore subtidal reefs of south-east South Australia, Victoria and Tasmania.

GJ

Gigajoule. A unit of measure of energy in joules. 1GJ = 1 billion joules.

GLOBALG.A.P.

An aquaculture certification covering food safety, animal welfare, workers' welfare, environment, traceability and key sustainability aspects at all stages of production.

Greenhouse gas (GHG)

A gas in an atmosphere that absorbs and emits radiation within the thermal infrared range.

Grow-out lease

Marine farming lease where fish over 1.5kg are grown to harvest size.

Halal (food)

Any foods that are allowed to be eaten according to Islamic Sharia law.

Hatchery

A facility where fish eggs are hatched under artificial conditions

Hazard Analysis Critical Control Point (HACCP)

A tool to identify specific hazards and measures for the control and safety of food. It assesses hazards and establishes control systems that focus on prevention rather than relying mainly on end-product testing.

Heads and frames

Skeleton of fish including the head and tail.

High density polyethylene (HDPE)

A versatile hard plastic.

HOG

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

Hog tonnes

Head on gutted weight.

Husbandry

The care, cultivation and breeding of crops and animals.

Hydrodynamics

The scientific study of the motion of fluids, especially non compressible liquids, under the influence of internal and external forces.

Inshore aquaculture

The culture and production of shellfish, seaweed or finfish species within inshore waters (i.e. estuaries, channels or bays)

Integrated Multi-trophic aquaculture

Farming of multiple species reliant on different sources of energy is referred to as integrated multi tropic aquaculture (IMTA).

Intertidal macroalgal communities

Species of seaweed that inhabit the zone between high and low water marks along rocky foreshores.

Intraperitoneal vaccine

Vaccination by injection into the peritoneum (body cavity).

ISO 9001:2008

An international standard related to quality management systems

IUCN Red List of Threatened Species

Provides taxonomic, conservation status and distribution information on plants, fungi and animals that have been globally evaluated using the IUCN Red List Categories and Criteria. The list is developed and managed by the IUCN Global Species Programme, working with the IUCN Species Survival Commission.

K-Grid Net

Nets comprised of two interwoven polymers to form a rigid net that can withstand the force of large predators.

Kikko Net

Semi-rigid net system made from polyester monofilament. **Kosher** Foods are those that conform to the regulations of kashrut (Jewish dietary law). Only fish with fins and scales may be eaten, for instance, tuna, salmon, and herring.

Lag indicator

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

Life Cycle Assessment (LCA)

A technique to assess the environmental aspects and potential impacts associated with a product, process or service. Sometimes referred to as 'Cradle to Grave' assessment.

LTI

Lost Time Injury.

LTIFR

Lost Time Injury Frequency Rate.

Macroalgal community

A naturally occurring group of seaweed species that interact within a unique habitat or system.

Macroalgal community assemblages

Groups of seaweed species that co-exist as functional communities within similar habitats.

Macroalgal distribution

The spatial pattern and range of seaweed species across habitat types.

Macroinvertebrate

A small animal that does not have a spinal column, such as worms and crustaceans, and can be seen with the naked eye.

Marine lease

Areas of water registered to grow finfish, shellfish or other marine organisms.

Material issues

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

Melanin

A dark brown to black pigment.

ML

Megalitre. 1 ML = one million litres.

MTIFR

Medically Treated Injury Frequency Rate.

Near-field

Monitoring that occurs within or around a marine lease.

Netslab

A facility where nets are repaired, stored and managed.

Nitrogen

A fundamental chemical element with the symbol N.

NRM

National Resource Management.

Offcuts

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

Offshore aquaculture

Aquaculture operations positioned in deeper, exposed, high energy locations.

OHSAS 18001:2007

OHSAS 18000:2007 is an international occupational health and safety management system specification most recently updated in 2007

OIE Aquatic Animal Health Code

Standards for the improvement of aquatic animal health and welfare of farmed fish worldwide, and for safe international trade in aquatic animals and their products.

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

Pathogen

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

Pelagic fisheries

Commercial fishery of fish that inhabit the pelagic zone. Species include forage fish such as anchovies and sardines.

Phosphates

An inorganic chemical that can exist in a soluble form.

Pilchard orthomyxovirus

An endemic disease of pilchards belonging to the family orthomyxoviridae.

Plankton

The small and microscopic organisms drifting or floating in the sea or fresh water, consisting mainly of diatoms, protozoans, small crustaceans, and the eggs and larval stages of larger animals.

Ploidy

The number of sets of chromosomes in a cell, or in the cells of an organism.

POe4

Phosphate equivalent.

Polymer dosing pump

Small pump delivering a controlled metered amount of polymer solution into the process stream or vessel.

POMV

(see Pilchard orthomyxovirus).

Precautionary principle

When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.

Primary processing

The transformation of raw ingredients into food.

Processing facility

A facility where raw materials are processed into finished products.

Prophylactic

A preventative measure.

Provenance

The origin of a product.

Recirculation hatchery

A fish growing environment which biologically filters system water for re-use, removes ammonia, CO₂ & solids and oxygenates the water.

Reticulated Water

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

Roundtable of Responsible Soy

A civil organisation that promotes responsible production, processing and trading of soy on a global level.

Rocky reef system

The collection of seaweed, sponge and invertebrate species occurring on hard rocky substrates that provide habitat and structure for mobile marine species such as fishes, rock lobsters, sea urchins.

RSPCA Approved Farming Scheme Standards

A standard established by the RSPCA to improve the lives of Australia's farm animals and provide guidance and a trustworthy choice to consumers wishing to purchase products from higher welfare farming systems.

ROV Dive

Inspection dives that are performed by Remote Operated Vehicles.

Safety Institute of Australia (SIA)

A professional association for the health & safety profession.

Salmonid

Any fish of the family Salmonidae, which includes Salmon.

Salmo salar

The scientific name for Atlantic Salmon.

Saltwater aquaculture

The farming of fish in sea water.

Scope 1 emission

All direct GHG emissions, e.g. combustion of fuel in company cars or machinery.

Scope 2 emission

Indirect GHG emissions from consumption of purchased electricity, heat or steam.

Scope 3 emission

Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. T&D losses) not covered in scope 2, outsourced activities, waste disposal, etc.

Selective breeding

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

Sense T

Collaborative research network that collects and analyses real-time data about the environment to assist in resource management, planning and decision-making.

Sill

Shallow barrier at the mouth of a fjord like water body that prevents the deep waters of the water body from mixing with the deep waters of the sea.

Sludge

Concentrated waste product mixed with water.

Smolt

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

Smolt input cap

A maximum number of smolt that can be reared.

Smoltification

An internal metabolic process which enables a fish to adapt from fresh to sea water with a minimum of stress - characteristic of salmonid fish.

Spinner

The infrastructure at the end of the feeding system that distributes feed to the fish in individual fish pens.

SQF Code

An internationally recognised certification system, featuring an emphasis on the systematic application of HACCP for control of food quality hazards as well as food safety.

Stanchion

An L shaped component of a plastic fish pen used to support the hand rail and overall structure.

Stocking density

The biomass of fish in kilograms per m³ of cage volume.

Sustainable development

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable Trade Initiative (IDH)

IDH convenes companies, CSOs, governments and others in public-private partnerships. IDH drives the joint design, co-funding and prototyping of new economically viable approaches to realise green & inclusive growth at scale in commodity sectors and sourcing areas.

Tenacibaculosis

An ulcerative disease that can affect marine fish species.

Thermal resistance

The ability to maintain health and performance at the upper extent of the natural temperature range.

Thermal stress

Stress caused by water temperature fluctuations.

Total Permissible Dissolved Nitrogen Output (TPDNO)

A marine farming regulation. The TPDNO limits the output of allowable nitrogen from farming operations.

Total Recordable Injury Frequency Rate

The number of fatalities, lost time injuries, cases and other injuries requiring medical treatment per million hours worked.

Total Suspended Solids

Suspended particulates within a waterbody.

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.

Traditional Use of Marine Resources Agreement (TUMRA)

An agreement that describes how Great Barrier Reef Traditional Owner groups work in partnership with the Australian and Queensland governments to manage traditional use activities on their sea country.

Trimming (trims)

By-products produced when fish are processed for human consumption or if whole fish is rejected for use of human consumption because the quality at the time of landing does not meet official regulations with regard to fish suitable for human consumption.

Triploid

Fish that have been sterilised, resulting in an embryo that has more chromosomes than occur naturally.

United Nations Sustainable Development Goals

A set of 17 goals and 169 targets agreed to by member countries in 2015 that address a broad range of sustainable development issues.

Value-add

The enhancement of a product.

Vertical temperature stratification

The layering of water masses with different temperature properties within the water column.

Vibrio

A bacterial disease.

Water column

The column of water from the surface of the sea (or estuary) to the seafloor (or substrate).

Wild catch

Fisheries harvesting seafood from the wild.

WQA

The Woolworths Quality Assurance (WQA) Standard represents benchmarking of the Woolworths Quality program against global product safety standards.

WSE

Woolworths Supplier Excellence program supplier requirements.

Year class (YC)

YC in Saltwater: a group of fish that enter the marine environment in a calendar year; YC in Freshwater: a group of fish hatched in the same calendar year.

Yersinia

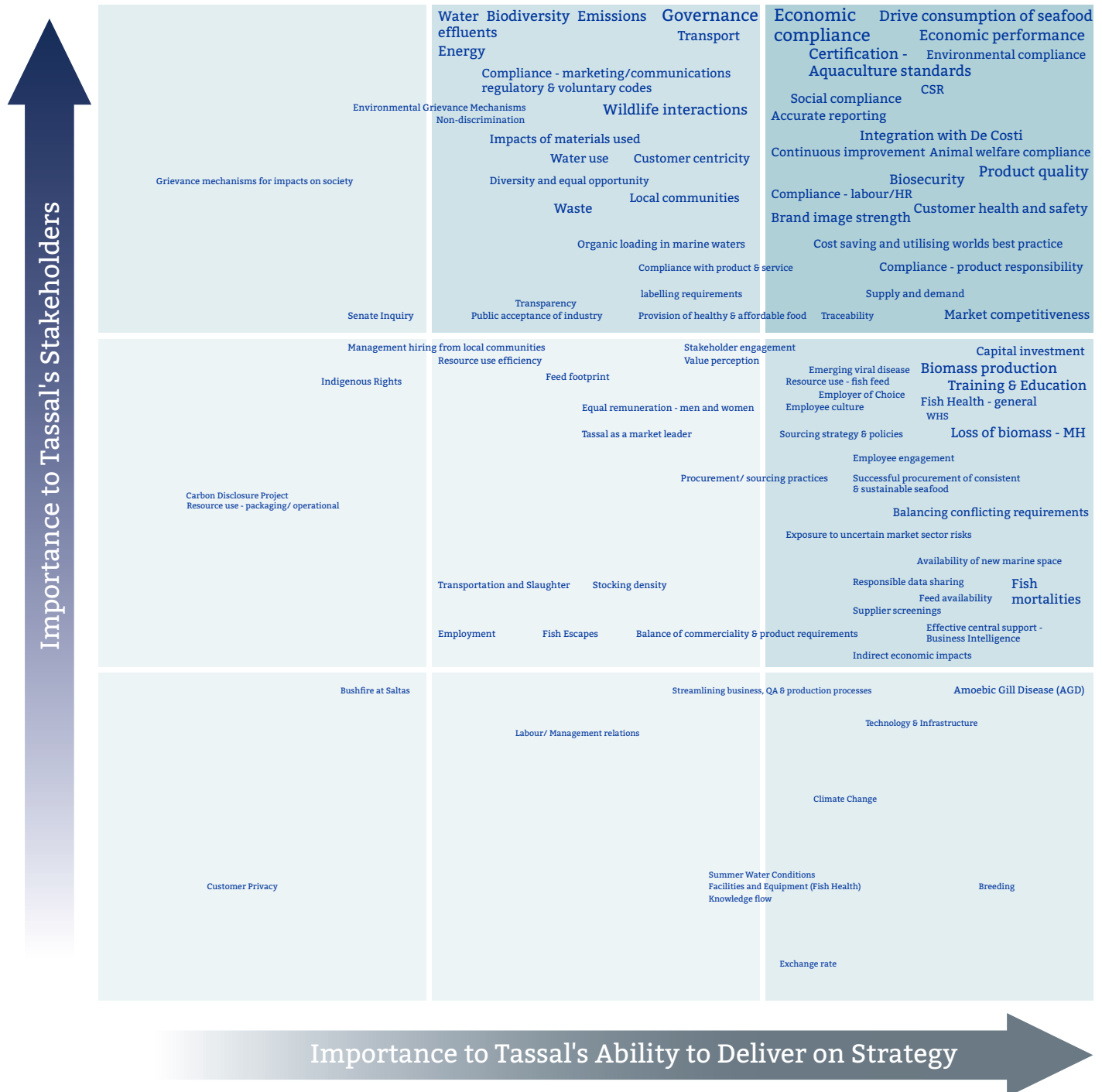
A bacterial disease endemic in Tasmania.

12. References

- Battaglione, S, Carter, C, Hobday, AJ, Lyne, V and Nowak, B 2008. *Scoping Study into Adaptation of the Tasmanian Salmonid Aquaculture Industry to Potential Impacts of Climate Change*. National Agriculture & Climate Change Action Plan: Implementation Programme Report, TAFI, Hobart.
- Davies, P.E. and Cook, L.S.J. 2015. *Benthic Macroinvertebrate Monitoring*. ASC Salmon Standard Compliance assessment. Tassal Russell Falls Hatchery 2015. Report to Tassal, November 2015. 17 pp.
- Environment and Communications Reference Committee 2015. *Regulation of the fin-fish aquaculture industry in Tasmania*. Commonwealth of Australia. Available at: http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Fin-Fish/Report
- Food and Agriculture Organisation of the United Nations 2014 '*The state of world fisheries and aquaculture*'. Accessed 5/6/15, www.fao.org/3/a-i3720e.pdf
- Food and Agriculture Organisation of the United Nations (FAO) 2016. *The state of world fisheries and aquaculture*. Available at: www.fao.org/3/a-i5555e.pdf
- Knight B, Forrest B, Johnston C 2015. *Macquarie Harbour Environmental and Fish Health Monitoring Review*. Prepared for Department of Primary Industries, Parks, Water and Environment Tasmania. Cawthron Report No.2729. 93 p. plus appendices. Available at: <http://dpi.pwe.tas.gov.au/sea-fishing-aquaculture/marine-farming-aquaculture/macquarie-harbour-environmental-and-fish-health-monitoring-review#CawthronReport>
- World Health Organisation (WHO) 2003. Diet, nutrition and the prevention of chronic diseases. WHO Technical Report Series 916. Available at: <ftp://ftp.fao.org/docrep/fao/005/ac911e/ac911e00.pdf>

13. Appendices

Appendix 1. Materiality Matrix



Appendix 2. Linking Material Topics to Stakeholder Groups



Appendix 3. Recommendations from Senate Inquiry

Section in Senate Committee Report	Explicit Committee Recommendations	Action by Tassal
3.92	The committee recommends that the Tasmanian Government support the greater provision of environmental information and data relating to the fin-fish industry by the Department of Primary Industries, Parks, Water and Environment	Tassal is supportive of this recommendation and leads the way in transparency of operations amongst Salmon farming in Tasmania
5.53	The committee recommends that the Tasmanian Government give consideration to amending the Marine Farming Planning Act 1995 to provide a statutory obligation for the Marine Farming Planning Review Panel to hold public hearings	No action required
5.58	The committee recommends that the Tasmanian Government ensure that the Department of Primary Industries, Parks, Water and Environment is provided with sufficient resources to undertake planning, monitoring and compliance of the primary industry sector	Tassal is supportive of this recommendation and has stated this publicly in media
4.29	In-situ net washing company Biofouling Solutions recommended the development of an overarching Biosecurity Management Plan, an appraisal of current in-water net cleaning operations and surveillance and monitoring of Introduced Marine Pests	<p>Tassal uses in-situ MIC technology for washing of nets, which has considerably reduced the need for land based net cleaning and maintenance. This technology is also utilised for net and rigging inspections on a regular basis.</p> <p>Copper antifoulant is no longer applied to nets and this is a significant, positive environmental achievement.</p> <p>The progressive introduction of new technology nets has resulted in a two thirds decrease of in-situ net washing output. This has also reduced the need for land based net maintenance as these nets remain in the water for the entirety of their serviceable life.</p> <p>Supporting research into in-situ MIC technology examined all potential impacts on and off lease including modelling to understand plume and broadscale effects. This was done after characterising fouling community on nets in different biophysical profile sites. The research resulted in best practice guidelines for in situ net washing which resulted in small localised impacts and those impacts were assimilated within the lease area, where the impact is greatest.</p> <p>Modern day net cleaning is undertaken on a high frequency, low output basis and due to this frequency, tunicates, shellfish and colonising hydroids do not have sufficient time between net cleaning events to become well established on net surfaces.</p> <p>Tassal is 100% compliant with the Department of Agriculture's <i>Anti-fouling and in-water cleaning guidelines, June 2013, and the industry's Environmental Best Management Practice Guideline for In situ Net Cleaning of Salmon Cages Using Marine Inspector Cleaner (MIC), 2013.</i></p> <p>Tassal will continue to investigate all technology that may mitigate against any detrimental impacts – with the caveat that those impacts have not been verified. We are in the process of investigating any potential broadscale impacts after we were alerted to concerns. Research and development work on filter technology is being undertaken internationally which we are following with interest</p>
4.34	Tas Abalone Council recommends industry cease in situ netwashing until waste capture technology is available and becomes a regulatory requirement	As above
4.110	In relation to bird interactions, the committee notes that some information is available from individual companies. However, more complete datasets are held by the regulator. The committee considers that there should be greater access to information on bird interactions. This information would fall within environmental information which the committee believes should be more freely available.	<p>Tassal was the first Salmon company in Tasmania to publically report on bird interactions.</p> <p>Birds Tasmania is consulted regularly and have assisted Tassal with exclusion technology design</p>
5.30	EDO Tasmania recommended that amendments be made to the MFP Act to require that the Marine Farming Review Panel include a member with qualifications and expertise in relation to marine ecology and hydrology and a member representing community issues <i>(EDO Tasmania commented that while members could have relevant scientific expertise, there is no explicit requirement for the Panel to include a member with qualifications in relation to marine ecology, hydrology, marine sediments or conservation management. Similarly, while a community representative could be the person nominated by the Minister, there is also no capacity for community concerns to be specifically represented).</i>	A member with specified qualifications and expertise was added to the Marine Farming Review Panel after the Inquiry
3.29	The requirement of video monitoring for sediment health only every 12 months was also questioned. Submitters noted the results of a study undertaken on behalf of Environment Tasmania by consultant Hugh Kirkman in 2014. The study commented that the current frequency of video samples 'seems inadequate for a meaningful assessment of impacts' and recommended that surveillance be conducted more regularly. The study concluded that 'annual monitoring will not alert managers to impacts that may do permanent damage to the benthos'	The regulated monitoring frequency is supported by science and is peer reviewed. Monitoring frequency by Tassal has increased in Macquarie Harbour. Tassal has also implemented more frequent in house monitoring

14. GRI Content Index

General Standard Disclosures		
		Page
Strategy and Analysis		
G4-1	Message from our Chairman & Managing Director	pp.4-7
	Message from our Head of Sustainability	
Organisational Profile		
G4-3	Name of the organisation	p.2
G4-4	Primary brands, products, and services	p.11
G4-5	Location of headquarters	p.9
G4-6	Countries located	p.9
G4-7	Nature of ownership and legal form	p.9
G4-8	Markets served	p.13
G4-9	Scale of the organisation	pp.11-13, 51
G4-10	Employee profile	pp.53, 54 No employees are identified as self-employed.
G4-11	% of employees covered by collective bargaining agreements	p.54
G4-12	Supply chain	pp.14, 17, 20, 23, 40, 44, 66
G4-13	Significant changes in the reporting period	p.2
G4-14	Precautionary approach/principle	p.10
G4-15	Commitments to externally developed economic, environmental and social charters, principles, or other initiatives	pp.5, 10, 16, 18-23, 31, 35, 37, 38, 45, 48
G4-16	Memberships	p.81
Identified Material Aspects and Boundaries		
G4-17	Entities included in reporting	p.2
G4-18	Process for defining the report content and the Aspect Boundaries and implementation of the Reporting Principles for Defining Report Content	p.2
G4-19	Material Aspects identified in the process for defining report content	p.81
G4-20	Internal Aspect Boundaries	p.75
G4-21	External Aspect Boundaries	p.75
G4-22	Restatements from previous reporting periods	p.2
G4-23	Significant changes from previous reporting periods in Scope and Aspect Boundaries.	p.2
Stakeholder Engagement		
G4-24	Stakeholder groups engaged by Tassal	pp.57, 58
G4-25	Basis for identification and selection of stakeholders	pp.2, 56
G4-26	Approach to stakeholder engagement	pp.2, 56-58
G4-27	Key topics and concerns raised through stakeholder engagement, and responses	pp.32, 56-58
Report Profile		
G4-28	Reporting period	p.2
G4-29	Previous report	Sustainability Report 2015, published in 2016
G4-30	Reporting cycle	p.2
G4-31	Contact details	p.83
G4-32	‘In accordance’ option	p.2
G4-33	Policy and current practice in seeking external assurance for the report, including scope and basis of any external assurance	p.2

General Standard Disclosures (continued)

Governance			
G4-34	Governance structure and committees		Annual Report 2016 pp.7-9 http://www.tassal.com.au/annual-reports/
Ethics and Integrity			
G4-56	Code of ethics		http://www.tassal.com.au/governance-policies/

Specific Standard Disclosures

Material Aspects	DMA and Indicators	Page	Omissions
Category: Economic			
Economic Performance	DMA	p.14	N/A
	G4-EC1: Direct economic value generated and distributed	pp.11. Annual report p.3 http://www.tassal.com.au/annual-reports/	N/A
	G4-EC2: Financial implications and other risks and opportunities for the organisation's activities due to climate change	pp.2, 22	N/A
Procurement/ Sourcing Practices	DMA	pp.17-20	N/A
	FP1: % of purchased volume from suppliers compliant with company's sourcing policy	pp.19, 21	N/A
	FP2: % of purchased volume which is verified as being in accordance with credible, internationally recognised responsible production standards, broken down by standard	pp.19, 21	N/A
Indirect Economic Impacts	DMA	p.15	N/A
	G4-EC8: Significant indirect economic impacts, including the extent of impacts	p.15	N/A
Category: Environmental			
Materials	DMA	pp.44, 45	De Costi data not reported on due to streamlining of processes
	G4-EN1: Materials used by weight or volume	pp.45	Data on weight of packaging is currently not collected. De Costi data not reported on due to streamlining of processes
Energy	DMA	p.41	N/A
	G4-EN3: Energy consumption within the organisation	p.41	De Costi data not reported on due to streamlining of processes
	G4-EN6: Reduction of energy consumption	p.41	
Water	DMA	p.40	N/A
	G4-EN8: Total water withdrawal by source	p.40	De Costi data not reported on due to streamlining of processes
Biodiversity	DMA	p.31	De Costi data not reported on due to streamlining of processes
	G4-EN11: Operational sites owned, leased, managed, or adjacent to protection areas and areas of high biodiversity value outside protected areas	p.35	
	G4-EN12: Significant impacts of activities, products, and services on biodiversity in the areas identified above	p.35	
	G4-EN13: Habitats protected or restored	pp.31-38	
	G4-EN14: IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	p.37	

Emissions	DMA	p.40	N/A
	G4-EN15: Direct greenhouse (GHG) emissions (Scope 1)	p.41	De Costi data not reported on due to streamlining of processes
	G4-EN16: Energy indirect greenhouse gas (GHG) emissions (Scope 2)	p.41	
	G4-EN18: Other indirect greenhouse gas (GHG) emissions (Scope 3)	p.41	
Effluents and Waste	DMA	pp.40, 42	N/A
	G4-EN22: Total water discharge by quality and destination	p.41	De Costi data not reported on due to streamlining of processes
	G4-EN23: Total weight of waste by type and disposal method	p.43	
	G4-EN26: Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organisation's discharges of water and runoff	pp.36, 38	
Compliance	DMA	p.34	N/A
	G4-EN29: Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	p.34	De Costi data not reported on due to streamlining of processes
Material Aspects	DMA and Indicators	Page	Omissions
Transport	DMA	p.40	N/A
	G4-EN30: Significant environmental impacts of transporting products and other goods and materials for the organisation's operations, and transporting members of the workforce	p.41	De Costi data not reported on due to streamlining of processes
Supplier Environmental Assessment	DMA	p.41	N/A
	G4-EN32: % of new suppliers that were screened using environmental criteria	p.41	De Costi data not reported on due to streamlining of processes
Environmental Grievance Mechanisms	DMA	p.60	N/A
	G4-EN34: Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	p.60	De Costi data not reported on due to streamlining of processes
Category: Social			
Category: Social (Sub-Category Society)			
Animal Welfare	DMA	p.46	N/A
	FP9: % and total of animals raised and/or processed by species and breed type	p.2	De Costi data not reported on due to streamlining of processes
	FP10: Policies and practices related to physical alterations and the use of anaesthetic	pp.48, 49	
	FP11: % and total of animals raised and/or processed, by species and breed type, per housing type	p.2	
	FP12: Policies and practices on antibiotic, anti-inflammatory, hormone, and/or growth promotion treatments	pp.48, 49	
	FP13: Total number of incidents of significant non-compliance with laws and regulations, and adherence with voluntary standards related to transportation, handling, and slaughter practices for live terrestrial and aquatic animals	p.46	
Local Communities	DMA	pp.51, 56	N/A
	G4-SO1: % of operations with implemented local community engagement, impact assessments, and development programs	p.56	N/A
Compliance	DMA	p.60	N/A
	G4-SO8: Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	p.60	N/A
Supplier Assessment for Impacts on Society	DMA	p.41	N/A
	G4-SO9: % new suppliers that were screened using criteria for impacts on society	p.41	N/A
Grievance Mechanisms for Impacts on Society	DMA	p.60	N/A
	G4-SO11: Number of grievances about impacts on society filed, addressed and resolved through formal grievance mechanisms	p.60	N/A
Healthy and Affordable Food	DMA	p.67	N/A

Category: Social (Sub-Category Human Rights)			
Non-discrimination	DMA	p.52	N/A
	G4-HR3: Total number of incidents of discrimination and corrective actions taken	p.52	N/A
Supplier Human Rights Assessment	DMA	p.41	N/A
	G4-HR10: % new suppliers that were screened using human rights criteria	p.41	N/A
Category: Social (Sub-Category Labour Practices and Decent Work)			
Employment	DMA	p.52	N/A
	G4-LA1: Total number and rates of new employee hires and employee turnover by age group, gender and region	p.53	N/A
Occupational Health and Safety	DMA	p.61	N/A
	G4-LA5: % of total workforce represented in formal joint management-worker health & safety committees that help monitor and advise on health & safety programs	p.63	N/A
	G4-LA6: Type of injury, occupational diseases, lost days, absenteeism and total number of work related fatalities by region and gender	p.65	N/A
Training and Education	DMA	p.52	N/A
	G4-LA9: Average hours of training per year per employee by gender and employee category	p.54	N/A
Diversity and Equal Opportunity	DMA	p.52	N/A
	G4-LA12: Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	p.53	N/A
Supplier Assessment for Labour Practices	DMA	p.41	N/A
	G4-LA14: % new suppliers screened using labour practices criteria	p.41	N/A
Category: Social (Sub-Category Product Responsibility)			
Customer Health and Safety	DMA	p.66	N/A
	G4-PR1: % of significant product and service categories for which health and safety impacts are assessed for improvement	p.21	N/A
	G4-PR2: Number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by outcome	p.66	N/A
	FP5: % of production volume manufactured in sites certified by an independent third party according to internationally recognised food safety management system standards	p.21	N/A
Product and Service Labelling	DMA	p.67	N/A
	G4-PR4: Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes	p.67	N/A
	G4-PR5: Results of surveys measuring customer satisfaction	p.67	N/A
Marketing Communications	DMA	p.67	N/A
	G4-PR7: Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion and sponsorship, by types of outcomes	p.67	N/A

Memberships and Committees

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
- Institute of Engineers Australia
- Governance Institute of Australia Ltd
- Association of Corporate Counsel (ACC)
- Biosecurity Australia – Biosecurity Roundtable.

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
- Gill Health Initiative Steering committee
- Birds Tasmania
- Derwent Estuary Program
- D'Entrecasteaux and Huon Collaboration
- Sense-T
- Australian Diver Accreditation Scheme (ADAS)
- Better Work Tasmania (BWT)
- Safety Institute of Australia (SIA)
- Australian Institute of Company Directors (AICD)
- Agri Food Advisory Board
- Employer of Choice reaccreditation committee
- Seafood Training Tasmania board
- Employing People with Disabilities Committee – Mission Australia.

Awards

Australian Business Award for Sustainability

In the reporting period, Tassal became the first food producer to be awarded the Australian Business Award for Sustainability. The award, which is benchmarked against international performance standards, recognises organisations demonstrating leadership and commitment to sustainable business practices.

Coles award for Sustainable and Ethical Excellence

Tassal was awarded the Coles Sustainable and Ethical Excellence Award after achieving Aquaculture Stewardship Council (ASC) certification across all operations.

The Coles Supplier Awards consist of eight categories and recognise excellence across all areas.

Banksia Foundation Richard Pratt CEO Award

Mark Ryan, Tassal's CEO & Managing Director was presented with the Richard Pratt Banksia CEO Award. Presented by the Banksia Foundation, this annual award recognises and celebrates individual and organisation contributions to sustainability across Australia.

It was noted that Mark has established a pathway for the industry to grow sustainably, which will further benefit the Tasmanian economy and Tassal's employees.

2015 Seafood Intelligence International Benchmarking

Tassal was benchmarked as the world's top Seafood company in an international report that benchmarks the world's top 100 Seafood companies for sustainability reporting and transparency. Tassal was the only Australian company listed in the 2015 Seafoodintelligence.com report, achieving a Corporate, Social and Environmental Responsibility rating of excellent – one of only four companies in the top 100 to achieve this level.

2016 Seafood Intelligence International Benchmarking

Tassal was benchmarked as the world's top Salmonid company in corporate, social and environmental reporting by Seafood-intelligence.com, an independent international Seafood market intelligence news and information service.

The annual report is prepared to help key Salmon farming industry players, retailers, environmental organisations and all stakeholders assess the level of proactive and voluntary transparency and communication when it comes to corporate, social and environmental sustainability reporting.

Production Notes

Sustainability Report Team - Tassal Group Limited

Linda Sams, Head of Sustainability

Heidi Hansen, Environmental Certification and Sustainability Officer

Claire Willemse, HR Manager

Tony Barton, WHS Advisor – Farming

Luke Kapitany, Community Engagement Officer

Special Thanks

Jenna Bowyer, Sustainability and Communications Officer, Skretting Australia

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 GOLD Community Member (see: www.zooid.com.au)

Design

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

Contact Us

If you have any comments or questions about information contained within the Tassal Sustainability Report 2016, please contact us at sustainability@tassal.com.au

