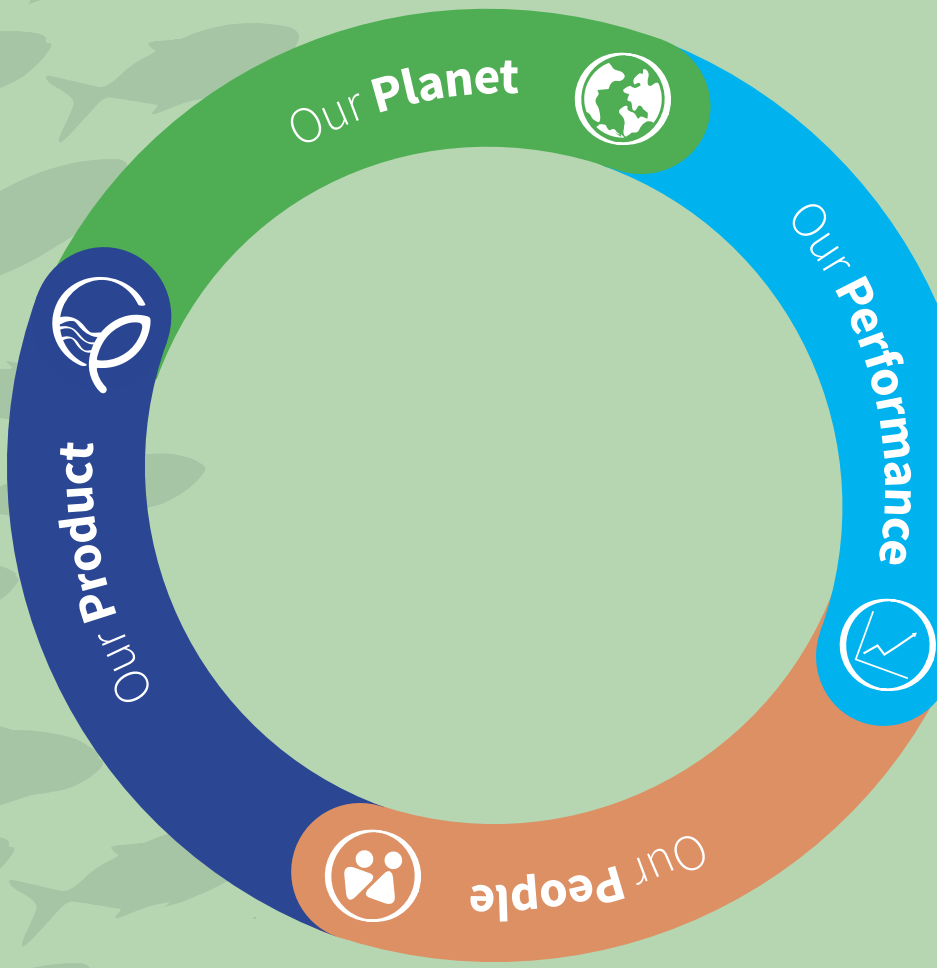
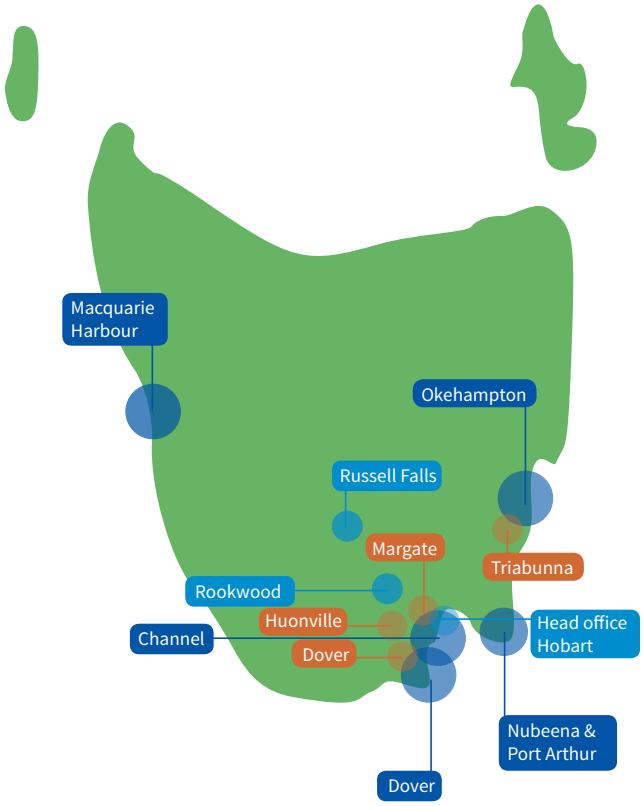
tassal®

2018

SUSTAINABILITY REPORT



OUR OPERATIONS



Salmon Farms

- Okehampton Bay
- Channel
- Dover
- Macquarie Harbour (joint venture)
- Nubeena & Port Arthur

Processing Facilities

- Huonville (smoking & processing)
- Margate (smoking & processing)
- Dover (wet processing)
- Triabunna (value-add by-products)

Hatcheries

- Russell Falls
- Rookwood Road (hatchery & nursery)

Head Office

- Hobart, Tasmania

Sales & Marketing

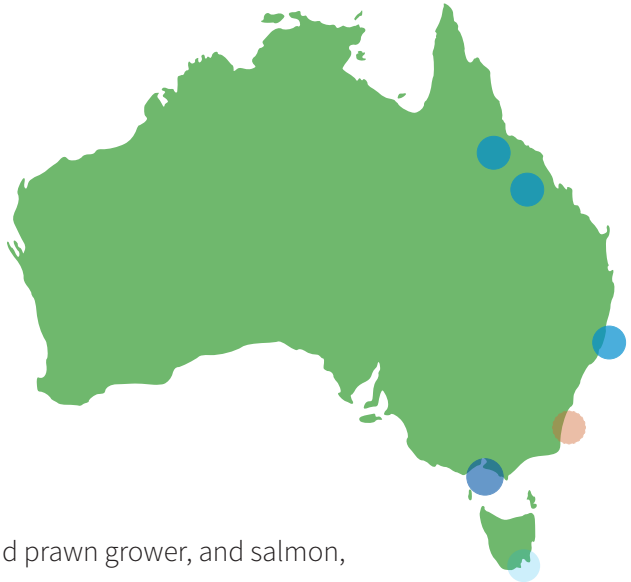
- Kew, Melbourne

De Costi Seafoods

- Lidcombe, Sydney

Prawn Farms

- Mission Beach, Queensland
- Proserpine, Queensland
- Yamba, New South Wales



Tassal is the largest vertically integrated salmon and prawn grower, and salmon, prawn and seafood processor in Australia.

We produce, process and market premium salmon, prawn and seafood products for both Australian domestic and export markets.

Tassal is committed to taking a leadership role in sustainability in aquaculture and seafood sourcing, both in Australia and globally. Tassal Group Limited (TGR) is a publicly listed company on the ASX.

2018

SUSTAINABILITY REPORT

CONTENTS

tassal®

EXECUTIVE STATEMENT

Our vision is for a Better Tomorrow – for our people, our planet, our product, our performance and for the communities in which we operate.

Aquaculture and salmon farming are essential to our future. With increasing pressure on our planet, access to arable land restrictive and the ocean comprising 70% of the planet's footprint, the world's future food supply will largely depend on aquaculture. Wild fisheries are plateauing and to protect stocks for the future, aquaculture is a priority solution to address increasing demand for a more sustainable, nutritious and efficient source of protein.

To ensure we are in a position to deliver responsibly on the need for sustainably sourced protein, we are investing in significant environmental, technological and operational programs to minimise our environmental footprint and remain at the forefront of industry innovation and solutions.

Like all farmers, we are subject to the challenges of an ever-changing environment. Continuous improvement throughout our operations, supported by leading research and science-based programs, is paramount to underpinning sustainable aquaculture operations. This includes rising to challenges, such as impacts of climate change with warming sea temperatures and undertaking appropriate consultation as we seek to grow responsibly in shared waterways.

During this reporting year we continued our investment in programs to mitigate near and longer-term risks to environmental and climate-based challenges, and continued to bolster our efforts in strategic stakeholder engagement to embed community perception and feedback into consultation processes with action and investment plans to support better outcomes for all parties.

We are very proud of our efforts in the past 12-months and are committed to this journey where sustainability is threaded through every facet of our organisation to ensure a balanced strategy across our business.

Our decisions have proved successful and are demonstrated by the following highlights:

We achieved an improved safety performance with a reduction of Total Recordable Injury Frequency Rate (TRIFR) to 12.18, revenue growth of 13% to $509.5 million, and operating NPAT up 19% to $50.3 million, while strongly investing in sustainability programs, including:

- Producing Tasmania's largest smolt in our land-based nurseries, to minimise their impact on marine environments;
- Investing in eco-aquaculture projects at all our existing farms to off-set environmental impacts and rejuvenate local, native species for an improved marine environment;
- Movement towards 100% recycling of soft and hard plastics, transforming them into second-life products through our partnership with Tasmanian-based company, Envorinex. Tassal is now the state's largest single supplier of redundant plastics for recycling;
- Accelerating the roll-out of our ocean sanctuary enclosures, allowing fish to be hand raised with plenty of room to swim and grow safely and healthily;
- Adopting carbon-neutral innovations focused on renewable energy, recycling and reuse;
- 100% regulatory compliance across all leases;
- 100% Aquaculture Stewardship Council (ASC) certification across all our harvest produce; and
- 100% fully traceable, responsibly sourced seafood.

We achieved a strong salmon position across all growth metrics, including an average harvest size up 15.4%, underpinning 21.4% growth in harvest tonnage and live fish size up by 5.3%, resulting in a 5.5% increase in live biomass available for harvest tonnage in FY19. This was achieved through the support of advanced technological innovations and improved fish welfare and husbandry processes, including:

- The implementation of our best practice, world-first remote feed centre, improving fish growth at a reduced feed conversion ratio and contributing to lower fish growing costs, in addition to providing environmental, people safety, fish welfare and communication improvements;
- In response to rising sea temperatures, we have continued developing considerable options for adaptation including selective breeding, modification of farming technologies and practices and geographic diversification of our marine farm portfolio – demonstrated through new, biosecure sites becoming operational; and
- We announced a better way to manage environmental outcomes at Macquarie Harbour through a joint venture approach with fellow salmon farmer, Petuna. This enables a strategic approach to farming, allowing separation of year class and longer fallowing periods for the leases.

We announced a diversification of our business through the acquisition of the Fortune Group (which during the reporting period was subject to conditions precedent). This acquisition includes land, assets and inventory, which will cement Tassal as one of Australia's largest footprint tiger prawn farming operations. Our plans are to transfer science, technology and advanced sustainability strategies from salmon to prawns to increase prawn yield responsibly. This will be supported through a $34 million development program, on top of the $270 million improvement program for our salmon business.

Our commitment moving forward is to continue being a responsible producer, drawing on global best practice to support continued improvements for our local communities. As we rise to the task of meeting increasing consumer demand, we seek to align our ambitions with the Australian Government's National Aquaculture Strategy, the Tasmanian Government Sustainable Salmon Growth Plan and the United Nations Sustainability Development Goals (SDGs).

Initiatives in these plans are cascaded as priorities into our own strategies – including enhanced biosecurity practices, greater transparency and increased focus on marine debris prevention and solutions.

We have in the reporting period responded proactively, and:

- Developed an interactive public web-based data portal across our sustainability and compliance measures;
- Worked with our industry peers on a biosecurity framework and plan, which has included an independent review from international experts and Biosecurity Tasmania; and
- Commenced a marine debris action plan (internally and externally focused) to reduce our contribution to marine debris, be part of a local and global solution, while embedding a towards-zero three-year strategy.

With continued scrutiny on our salmon industry and a need for informed, balanced conversations, Tassal is committed to communicating a clear strategy to its stakeholders. We are committed to working with Government and our communities to ensure responsible growth plans are in place and appropriate investments in environmental programs are being made.

In order to achieve our responsible growth program, our plans supporting a sustainable future for Tassal are as follows:

SHORT TERM: 2018 - 2021

- In line with the industry biosecurity plan, retire inshore leases where it makes operational and social sense to do so and optimise oceanic sites within growth zones and well performing sites
- Achieve improved Feed Conversion Ratio (FCR) delivery through our remote feed centre coupled with the introduction of a lower nitrogen diet
- Evaluate regions for possible expansion of offshore sites in Tasmania: Storm Bay and King Island
- Continue to expand the integrated multi-trophic aquaculture (IMTA) investment into kelp growth program
- Contribute significant investment into a marine debris reduction strategy

MEDIUM TERM: 2021 - 2023

- Finalise decisions on formal tender process for high energy research areas
- Implement capital investment in Storm Bay as research supports
- Continue investigation into expanded land-based farming to support the growth of larger smolt or post smolt fish

LONG TERM: 2023 - 2030

- Progress exposed, higher energy site development based on research and consultation outcomes
- Retain strong foothold in the domestic market by meeting salmon production levels from exposed sites
- Continue to develop land-based farming infrastructure

We take our responsibility as an industry leader for seafood extremely seriously, and through our relentless and continuous focus on innovation, collaboration, communication and sustainability throughout the value chain, we will continue to contribute to a strong and sustainable industry.

Our commitment is to continue to server better: better quality salmon; better environmental outcomes; better community opportunities and an overall better future for Tasmania.

Mark Ryan

Allan McCallum

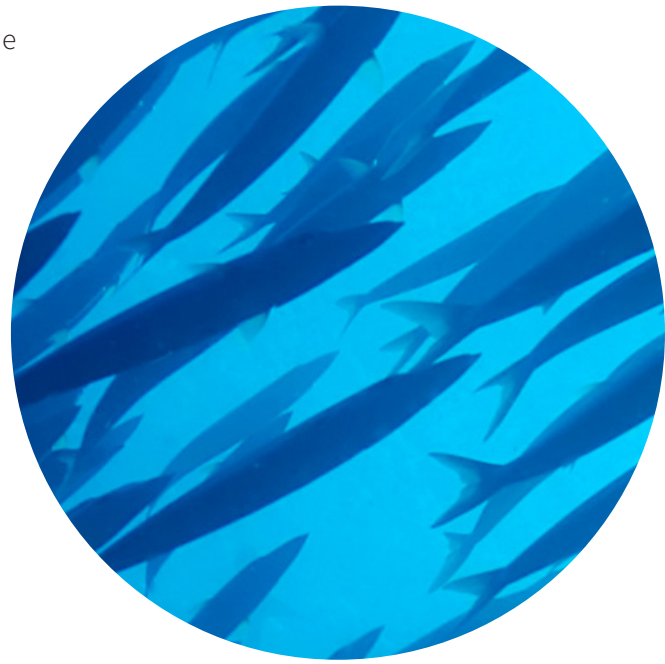
AQUACULTURE & FISHERIES
GLOBAL & LOCAL TRENDS

Global Trends

The 'blue growth' approach to managing the world's oceans and water bodies is focused on the environmental, social and economic impacts and benefits associated with fisheries and aquaculture activities. A core focus of the Food and Agriculture Organization (FAO) of the United Nations since the signing of the Paris Agreement in 2016 has been to achieve targets set out under the Sustainable Development Goal (SDG) 14: 'Conserve and sustainably use the oceans, seas and marine resources for sustainable development'. The central tenet of the Paris Agreement is to work towards keeping the global temperature increase in this century to below two degrees Celsius above pre-industrial levels.

Given the rise in extreme climate events impacting the world, including Australia, all business sectors have a responsibility to reducing and mitigating climate impacts through responsible business practices.

The FAO has identified the important role that the aquaculture and fisheries sectors play in their contribution to food security as producers of a nutritious protein source with less carbon impact. Challenges for the sectors are however, evident and include the need to reduce the percentage of fish stocks fished beyond biological sustainability and biosecurity, amongst other factors.



Marine fishery resources have continued to decline, which has placed pressure on traditional access to fish for consumption. In contrast, the aquaculture sector is growing faster than other major food production sectors and is projected to continue to be one of the fastest growing animal food sectors. In the 10 years from 2005-2015, aquaculture has surpassed beef production volumes, and is similarly projected to exceed wild-catch Seafood and egg production in the 2020-2025 timeframe (Rabobank, 2018). This ongoing trend will be essential to safeguarding the future of food security and provision of a nutritious and affordable protein source across the globe.

Australia's National Aquaculture Strategy

With Australia's reputation for producing safe, sustainable and quality aquaculture products, the industry has received significant support for industry growth with the release of the country's first National Aquaculture Strategy. The strategy, published in 2017, aims to double the current value of Australia's aquaculture industry to $2 billion a year by 2027.

The Federal Government recognises that while Australia's national aquaculture industry is small by global standards, the sector is in a growth phase and is a key growth industry in Tasmania, primarily attributable to Tasmania's growing salmon industry. Salmonids have been identified as the most valuable seafood species in economic terms, and is second only in value to wild caught rock lobster.

The national strategy has identified short, medium and long-term actions which address aquaculture development priorities to ensure the industry continues to grow within a defined set of parameters ensuring environmental, social and economic sustainability is at the centre of industry growth.

Tasmania's Aquaculture Industry

The Tasmanian Government and the Tasmanian salmon industry have a shared vision to increase salmon production safely and sustainably over the next two decades, and to deliver on this by building the most environmentally sustainable salmon industry globally.

The Department of Primary Industries, Parks, Water and Environment (DPIPWE) has worked with stakeholders and industry to develop the Sustainable Industry Growth Plan (Salmon Plan) for the salmon industry (released late 2017) and has significantly changed the environmental regulatory framework around finfish farming of salmon in Tasmania to ensure growth of the industry within defined sustainability parameters.

The plan includes several actions, organised under three priorities:

- Maintaining public confidence in the salmon industry;
- Improving the efficiency, effectiveness and transparency of the industry's environmental regulation, and the effectiveness of its biosecurity systems; and
- Supporting industry growth.

As a key player in the Tasmanian salmon industry, Tassal strongly supports all three key priorities.

A key action to maintain public confidence in the salmon industry will be the development of a 'Tasmanian Salmon Industry Scorecard' benchmarking the industry against international best practice, applicable in the Tasmanian context. Development of the scorecard will be supported by international research and will involve consultation with key stakeholders, including Tassal.

OUR STRATEGY

Tassal's aim is to meet Australian consumer demand, increasing by approximately 8 – 10% annually in line with the broader industry growth plan. If we do not meet the demand in a responsible and sustainable way, we risk inferior imported products gaining a strong foothold in the Australian seafood market. To achieve our strategic growth plans for salmon we need to look beyond our traditional inshore leases for growth:

Offshore farming

There has been much discussion regarding what constitutes Offshore salmon farming. Offshore implies a long distance from the shoreline. To date, across all three Tasmanian companies, the furthest lease from the shoreline is our Lippies site in our Southern Zone which is approximately 1.5km offshore.

We like to refer to these leases as high energy sites. High energy means the area has a high water exchange through tides and wave motion. Our plans to farm at West of Wedge will see Tassal farming in the roughest waters in the world.

King Island Research Permit

Tassal has been granted a research permit for King Island allowing exploration regarding suitability for offshore oceanic farming. The initial work undertaken includes examining temperature, wave action, seabed habitat and all environmental factors.

We are strongly committed to ensuring we have appropriately consulted and considered the local community and other shared-users of the farming water-ways and will work with all our stakeholders to best understand the viability and opportunity of King Island for all parties.

Okehampton Bay

In the reporting period we received approval to proceed with our Okehampton Bay salmon farm.

As a result, Triabunna became home to Australia's first eco-aquaculture site.

SUSTAINABLE DEVELOPMENT GOALS

We are committed to developing our corporate strategy in line with the United Nations Sustainable Development Goals (SDGs). We have mapped our activities against the SDGs, and have employed a solid framework of activities which are aligned with goals relevant to our business. Our next step during FY2019 will be to set company relevant specific targets against each goal on which we will report our progress.

CLIMATE RISK

Climate plays an important role in Tassal's operations. We recognise climate change is likely to present a range of challenges to the aquaculture industry. Without proactive adaption, salmon farming may become more vulnerable to disease and/or changes in environmental conditions.

Tassal is currently on a journey to develop a corporate standard to ensure the future measurement and management of climate change and its impacts on our business. This includes the disclosure of climate-related information based on Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

Tassal's exposure to climate-related risks and opportunities are considered within the context of the company's value chain and have been identified across all areas of the business.

Climate change can have potential financial impacts including increased operating costs resulting from capital investment in technologies for adaption, rising energy costs and supply chain interruptions. Financial opportunities also exist through climate change including the adoption of resource efficiencies and waste management initiatives.

A number of important climate variables have been identified through discussions with key Tassal staff and selected specialists (i.e. CSIRO) due to their direct impacts on the value chain.

We take an immediate and long term approach to managing climate change and partner with local, national and international academic and industry scientific research partners to mitigate risks to aquaculture arising from climate change. We maintain a comprehensive risk management system to manage the long-term risks, issues and opportunities presented by climate change and respond accordingly.

We have engaged scientists to identify emerging climate trends and systems responses, and to undertake comprehensive broad scale environmental monitoring. We believe that climate change risks must be addressed through accelerated action which addresses behavioural change, innovation and technological progress so that we achieve a balance in meeting natural resource and energy needs.

In response to the changing climate, in particular rising sea temperatures, Tassal has developed considerable options for adaption including selective breeding, modification of farming technologies and practices, and geographic diversification of its marine farm portfolio. In essence, our primary goal is to employ 'climate smart' aquaculture practices.

One of the more important observations regarding climate-related risk involves preparedness and mobilisation of resources before and during extreme events. For example, while departure from average annual values (i.e. rainfall, sea surface temperature) may not be significant, the variance associated with these parameters, particularly during extreme events poses a level of risk that requires further assessment.

Our response to identified climate-related risks and associated strategic opportunities include:

- Risk management actions;
- Capital expenditures on new technology or facilities;
- R&D expenditures that may be necessary to accommodate a changing physical environment.

With a focus on our operational contributions to climate change, our commitments to address and plan for climate risk are to:

- Assess and quantify our carbon footprint;
- Transparently report our emissions profile and the actions we implement to reduce our emissions;
- Establish an emissions and energy management plan across our business with associated monitoring and reporting of activities;
- Establish energy usage and emissions targets;
- Invest in and encourage innovation to improve operational energy usage and emissions performance;
- Develop and fund research into climate change impacts on our business and our industry; and
- Improve the resistance of our freshwater and marine operations to any likely adverse effects of climate change.

Our Climate Change Policy is available at: http://tassalgroup.com.au/investors/governance/policies/

CLIMATE RISK MITIGATION PROJECTS

Forecasting Environmental Conditions

Tassal has engaged the CSIRO to forecast conditions and provide environmental intelligence to support risk-based decision making at regional and site scales around Tasmania. This knowledge will increase our resilience to climate variability.

In Pen Environmental Project

Tassal's Marine Operations team is currently working on an internal 'In Pen Environment' project to further understand lease-by-lease environmental conditions and subsequently develop relevant management techniques and operational systems to grow fish within risk tolerance limits. The 12-month project will commence September, 2018.

Climate Change - Progress on FY2018 Goals and Targets

Achieved | Progressing | Not Achieved

Review climate change governance	Develop a corporate standard to ensure future measurement and management of climate change and its impacts

Outcomes of Tassal's 2018 Life Cycle Assessment (LCA) will inform our approach to climate change governance.

BIOSECURITY RISK

Within our growth planning, we take an industry leading proactive and coordinated approach to best practice biosecurity and environmental management principles. Our robust, risk-based biosecurity planning framework on a macro level involves discussions with the broader industry on how we can work together to manage biosecurity risk. We also work to identify the best site locations within the growth parameters for sustainable farming (i.e. away from reefs, and with suitable current flow).

Internally, our comprehensive biosecurity procedures provide clear guidelines for effective biosecurity management. Specific activities include stock separation, minimisation of vessel, staff and equipment transfer between sites, and wash-down of vessels and equipment when they are required to move between different leases.

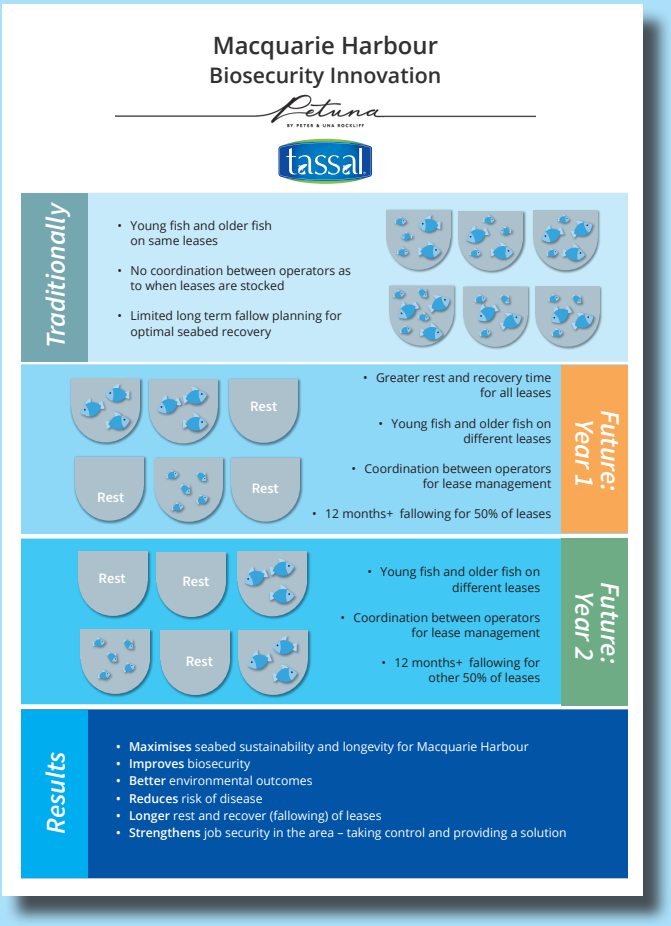
During the reporting period we engaged with the global salmon aquaculture industry and science experts with a particular focus on best practice in biosecurity internationally. Following this, the Tasmanian industry is working together to review current practices including the separation of fish stocks, the introduction of enhanced biosecurity measures and the standardisation of pathogen risk reduction processes, to strengthen whole-of-industry biosecurity across existing marine farming development plan areas.

While Australia is free from many aquatic animal diseases that occur in many other parts of the world, e.g. sea lice, other localised activities may present us with potential biosecurity risks to our salmon. For example, a local Tasmanian woodchip export company proposed to build a port site close to Tassal salmon farms. An activity such as this may present significant health risks to Tassal salmon through the discharge of ballast water brought to southern Tasmanian waters from foreign waterways.

BIOSECURITY IN FOCUS – Tassal & Petuna Joint Venture

In May 2018, we announced our joint venture with Petuna in Macquarie Harbour. Together, we are setting a new benchmark in aquaculture biosecurity standards in Tasmania, which will see both companies cooperatively manage marine farms in Macquarie Harbour. As part of this joint venture, we will continue to own our leases, own our fish on our leases and own our existing infrastructure in the Harbour, with a number of our people working directly within the joint venture arrangement to allow us together strategically to make decisions as a combined farming team.

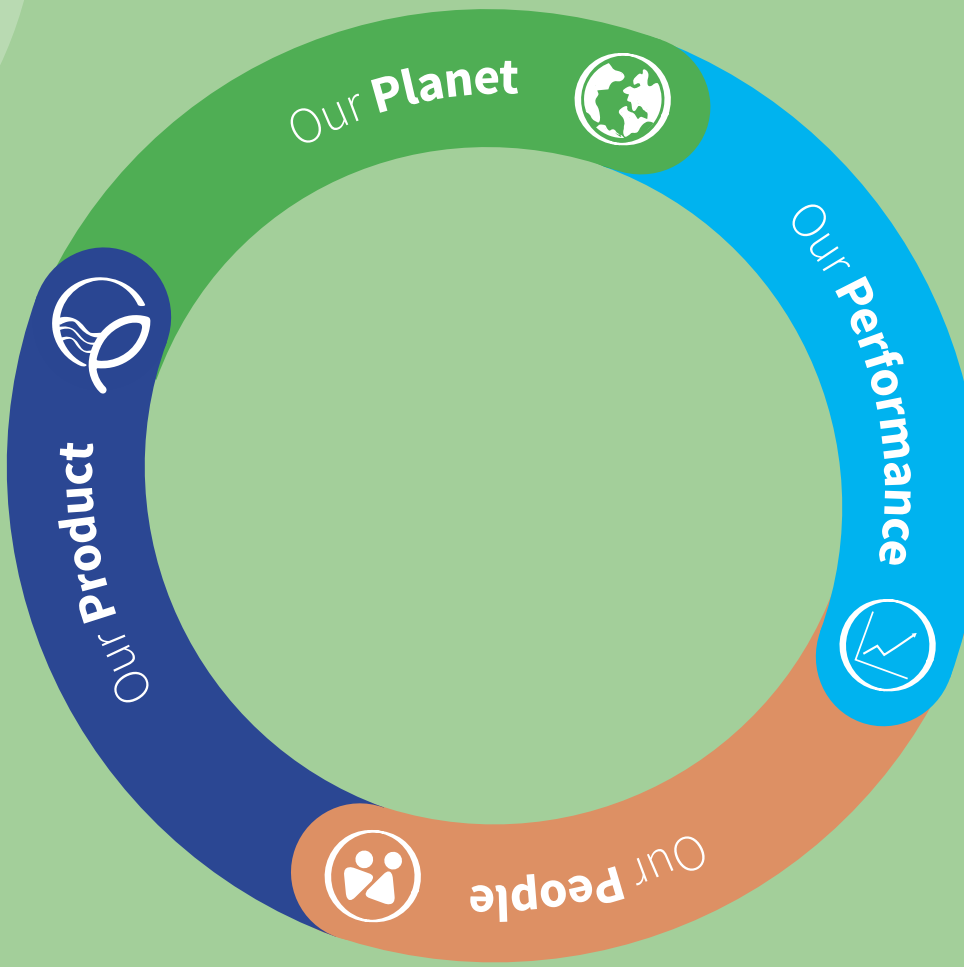
The joint venture will deliver better biosecurity and environmental outcomes through a restocking strategy, separation of year class and longer fallowing periods. The joint venture reflects international best practice in biosecurity and reflects the principles outlined in the Tasmanian Government's Salmon Sustainable Industry Growth Plan which encourages improved area management planning.



2018

OUR PLANET

Tassal employs an environmental focus across all areas of the business. It is our belief responsible salmon farming requires a comprehensive understanding of the environment and our impacts. Our Environment team works to achieve this by working closely with environmental specialists and local researchers as well as regulatory bodies to ensure all activities comply with best practice environmental management and legal requirements.



We develop and implement environmental initiatives to facilitate sustainable development and work with other business units to ensure our employees prioritise good environmental practices as part of day to day operations.

Our Aquaculture Stewardship Council (ASC) certification underpins our dedication to responsible aquaculture and provides our stakeholders with assurance that we are following the highest environmental standards available for aquaculture.

BIODIVERSITY

Understanding and conserving local natural habitat, biodiversity and ecosystems is an important sustainability objective for our business. Operating responsibly is fundamental to our future success and an important foundation for growth and establishing community trust.

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999) is the Australian Government's central piece of environmental legislation and provides a legal framework to protect and manage nationally and internationally important flora, fauna and ecological communities. Tasmania lists over 600 threatened species as part of the Threatened Species Protection Act 1995 (TSPA 1995).

Through our Aquaculture Stewardship Council (ASC) certification, we complete biodiversity focused impact assessments for each of our operational areas. These assessments draw on key legislation at the State and Federal level and include the proximity of our sites to critical, sensitive or protected habitats and species, with particular focus on key threatened species included on IUCN, State and National lists.

As part of this process we routinely apply a conservative filter to identify all possible listed species or communities that could be vulnerable to impacts from our operations. Once identified, we also undertake a range of investigations to confirm their presence or preferred habitat in our waters – and develop appropriate mitigation measures and management strategies to eliminate or minimise impacts to the species or their populations. Annual third-party ASC audits evaluate the effectiveness of this process and monitor the outcomes of these programs.

Our Planet

ENVIRONMENTAL IMPACT **OF MARINE AQUACULTURE**

Over the last decade, Tassal's investigations into determining the environmental effects of salmonid farming have expanded well beyond our understanding of localised seabed effects directly beneath cages. We have now extended our research programs and monitoring activities into new environmental domains to ensure the integrity of our marine ecosystems is maintained and protected.

As part of Tassal's environmental charter, we have supported pelagic, rocky reef and intertidal research and monitoring programs across local, intermediate and far-field sampling stations. We continue to reduce our environmental impacts through improvements in feeding practices (such as establishing our feed centre), feed formulation, understanding fish behaviour and a better understanding of the site characteristics where the environmental effects of finfish farming can be assimilated in a more sustainable way.

Tassal collaborates with research organisations (such as IMAS and CSIRO) and other independent scientists to understand the wider ecological impact of nutrient emissions from marine aquaculture. In recent times, we have focused on soluble nutrient emissions as these emissions are known to extend into the broader marine environment.

Our broadscale monitoring programs (covering approximately 60 monitoring stations state-wide) continue to provide us with confidence our marine ecosystems are functioning well, and we are not negatively impacting on our important marine natural values.

There are a range of studies examining this topic, and our own environmental monitoring programs support the view that the detectible effects of soluble emissions from salmonid farming are generally restricted to within hundreds of metres from the emission source. A full list of distances between Tassal's leases and High Value Conservation areas is available in Appendix 1.

INTERTIDAL MACROALGAL COMMUNITIES

Tassal has supported a study to reassess intertidal macroalgal communities near to and distant from salmon farms and an evaluation of using drones to survey macroalgal distribution. The study, published in 2018, has provided further information on the composition and abundance of intertidal algae near to and distant from salmon farms in the D'Entrecasteaux Channel. It has also provided additional understanding of the complexities and issues around developing monitoring programs to assess the impacts of nutrient inputs from salmon farms on the surrounding environment (Crawford and Harwin, 2018).

The final report recommended this type of monitoring is not continued without a detailed assessment of other sources of nutrient input into the region and an experimental design with sufficient sites and techniques, such as stable isotope analysis, to detect effects of nutrient input from other sources (Crawford and Harwin, 2018).

Survey for the Tasmanian live-bearing sea star *Parvulastra vivipara* at Tinderbox

The Tasmanian live-bearing seastar *Parvulastra vivipara* is an endemic seastar, limited to a small number of sites in south east Tasmania. *P. vivipara* is one of only four seastar species worldwide known to bear live young (i.e. viviparous) and is considered of high conservation value, due to its limited distribution and unique biology. *P. vivipara's* conservation value was formally recognised in July 1998, when it was listed as an endangered species under the Tasmanian Threatened Species Protection Act 1995. *P. vivipara's* listing was downgraded to vulnerable in 2008, following the discovery of new subpopulations (DPIPWE, 2012). *P. vivipara* is also listed as vulnerable under the Commonwealth EPBC Act 1999.

During the reporting period, as part of our Aquaculture Stewardship Council (ASC) certification for our Channel Zone, we commissioned marine and environmental scientists Aquenal to complete a survey for *P. vivipara* in the area adjacent to our Tinderbox marine farm (Marine Farm Lease 90).

Despite the presence of suitable habitat, a thorough search of the survey area did not detect any *P. vivipara* individuals. It appears unlikely that a population currently exists in the Tinderbox/Howden area.

This independent audit process (as delivered through our partnership with ASC) highlights Tassal's growing awareness of protecting natural habitats and local biodiversity. As a company, we need a healthy functioning marine environment complete with all the diverse ecological communities, if we want to continue to grow our fish and our business.

Giant Kelp Marine Forests of South East Australia (Giant Kelp)

Giant kelp *(Macrocystis pyrifera)* forests in Australia are found in temperate south eastern waters on rocky reefs where conditions are cool and relatively nutrient rich. The Giant Kelp Marine Forests of South East Australia ecological community is listed as endangered under the EPBC Act 1999 and is a unique ecological community that extends from the ocean floor to the ocean surface, exhibiting a 'forest-like' structure with a diverse range of organisms occupying its benthic, pelagic and upper-canopy layers.

M. pyrifera is the only species of kelp able to provide this three-dimensional structure from the sea floor to the sea surface, so if giant kelp plants are lost or removed, the ecological community no longer exists.

A range of surveys have been conducted for *M. pyrifera* in the vicinity of Tassal's marine farming regions, as part of the preparation of Aquaculture

Our Planet

Stewardship Council (ASC) biodiversity assessments. Out of each of Tassal's five farming zones: Channel; Okehampton; Southern; Tasman and Western, evidence of *M. pyrifera* has been found at the Southern and Tasman zones. However, it is important to note that the presence of *M. pyrifera* does not automatically mean that they form a threatened Giant Kelp Ecological Community, as defined by the EPBC.

At our Okehampton Bay marine farm and throughout our leases in the D'Entrecasteaux Channel, we are growing Giant Kelp as part of our Integrated Multi-Tropic Aquaculture (IMTA) program. IMTA utilises by-products, including waste, from one aquaculture species as inputs for another. We are combining fed aquaculture (our salmon) with extractive aquaculture (Giant Kelp) aiming to create more balanced ecosystems. The growth of the kelp adjacent to our farms has performed above expectation and we are now taking hatchery produced kelp seed outside our leases with an aim to repopulate Giant Kelp forests at sites where they have disappeared.

Broadscale Environmental Monitoring

Through the Tasmanian Salmonid Growers Association (TSGA), Tassal participates in a Broadscale Environmental Monitoring Program (BEMP) across multiple locations in south east Tasmania.

The monitoring program has a water quality component (surface and bottom water) and a sediment component (sediment biology and chemistry). Water quality sampling is conducted by Aquenal every two weeks in summer and monthly over winter.

To date, this world class monitoring program has undertaken over 150 consecutive sampling events across 15 sites from North West Bay down to Recherche Bay in the deep south.

We have gleaned an important insight into the biodiversity of our microalgal communities – also called phytoplankton. The natural marine system is driven to a large extent by primary production in our water column, and this is driven by the amount and type of phytoplankton. Through the BEMP, we have been able to monitor abundance and diversity of our microalgal communities – providing another important layer of environmental assurance that our farming practices are sustainable.

Freshwater Aquaculture Biodiversity Focused Environmental Impact Assessment (BFEIA)

During the reporting period, we completed a BFEIA for our Russell Falls flow through hatchery. The assessment includes all biodiversity assets and habitats associated with the immediate aquatic environment – including water column, benthic and riparian (bank zone) – that may be affected by the hatchery.

The Russell Falls BFEIA identified aquatic or riparian plant, animal species or communities listed under the Threatened Species Protection Act 1995 or the Environment Protection and Biodiversity Conservation Act 1999 that occur in the local vicinity or within at least 10 km upstream or downstream of our Russell Falls hatchery on the Tyenna River. It also identified that there are no formal or informal reserves associated with instream or related aquatic habitats within the vicinity of, upstream or downstream of the hatchery.

Tenure associated with the riparian zone of the Tyenna River adjacent to and immediately upstream of the hatchery is formally reserved as either the Mount Field National Park or the Tyenna River Conservation Area under the Tasmanian Nature Conservation Act 2002. The riparian zone over several kilometres downstream of the hatchery is also formally reserved as public reserve under the Tasmanian Crown Lands Act 1976.

Recommendations were made as part of the BFEIA, and we are taking a risk-based approach to improving the management of biodiversity impacts from the facility.

MEASURING OUR IMPACTS ON BIODIVERSITY THROUGH ROV

Our Environment Team travels to all of Tassal's sites, using a special remote operated vehicle (ROV) which can provide visuals and environmental assessment of the sea floor.

ROV technology is also used to assess both far field and near field habitats such as deep reefs.

Under pen and lease boundary positions are decided by the Environmental Protection Authority (EPA) with coordinates supplied to our team. Once filmed, the data is sent to the EPA, accompanied by a scientific report and mapping files, where it is assessed by independent regulators. The under-pen footage and data is also used internally to look for indicator species abundance and diversity. Indicator species are used to assess organic impact which in turn helps decide when a site needs to be fallowed - this is when fish are taken out and the site is given a rest. The further afield monitoring and targeted surveys are used to assess broader marine communities.

ECO MOORING PROJECT

We are working with the CSIRO to develop and implement an Eco Mooring Project at several Tassal sites in the south east to assess the recovery of sediments around moorings that do not use chain. It is predicted that eco moorings will reduce the impact to the radiating sediment from traditional moorings by eliminating the scouring effect of chain on a swinging mooring.

Potential outcomes include the recovery of seagrass and other species that are not able to exist with traditional moorings. This project will also look at other high density recreational mooring sites within the Derwent River where sensitive habitat exist for Handfish.

Our Planet

EFFLUENTS & **WASTE**

We have internal procedures and operating mechanisms covering biological and non-biological waste to ensure proper handling and treatment. We implement recycling programs and pursue innovative waste management solutions with a focus on reduction and reuse.

Fish waste including marine mortalities as well as processing offcuts, trims, frames, heads and guts are sent to our Triabunna Processing Plant for rendering. Any waste that is not of an appropriate quality to be processed is sent to compost.

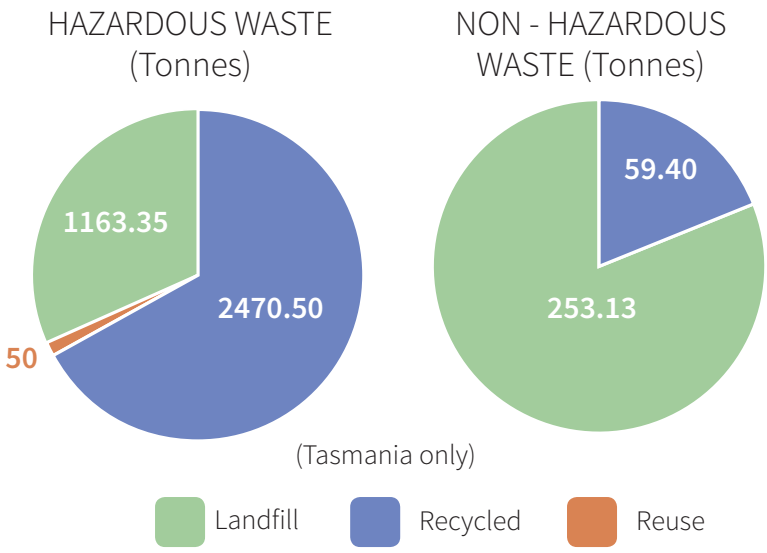
By sending waste to compost and collecting sludge from our freshwater operations for redistribution over agricultural land in partnership with local farmers, we avoid valuable nutrients being sent to landfill and putting our waste products to beneficial reuse.

We have committed to recycling 100% of all our hard and soft plastics through our continued partnership with Tasmanian plastic manufacturer Envorinex. Following the success of our partnership in previous years, Envorinex will now also be recycling all of our soft-plastic waste including nets, ropes, feed bags and processing bin liners.

Our focus on waste management extends to our hatchery, where teams have invested in a new egg transferring system to eliminate the need for single use polystyrene boxes when transporting eggs between hatcheries.

With the new system, eyed eggs are loaded into perforated tubes and transported in large cooler boxes. Both the egg tubes and the cooler boxes can be easily cleaned and disinfected between trips, meaning it is possible to maintain a higher level of biosecurity while eliminating waste.

In the reporting period we placed an increased focus on identifying waste streams across all our sites. Each year we review and report on waste types, volume and disposal. Going forward our priority will be to develop a strategy to reduce waste disposal to landfill and will increase awareness of general waste management at our administrative sites.



PACKAGING

Tassal is a signatory to the Australian Packaging Covenant Organisation (APCO), a co-regulatory, not-for-profit organisation that partners with Government and Industry to reduce the harmful impact of packaging on the Australian environment. Through our commitment to the Sustainable Packaging Guidelines (SPG), in FY2019 we will develop an internal packaging strategy with a focus to optimise materials efficiency.

We currently have formal packaging arrangements designed to keep packaging at a minimum and reduce waste where possible without compromising food safety. We continue to have a strategic focus on alternative recyclable and biodegradable packaging options for our products, however packaging design is largely dictated by product preservation and quality assurance, with efficient, cost effective shipping and handling.

RECOVERY OF **NUTRIENTS FROM BIOMASS 'WASTE'**

	Weight (tonnes)			Protein (tonnes)			Omega-3 (tonnes)		
Biomass	**FY16**	**FY17**	**FY18**	**FY16**	**FY17**	**FY18**	**FY16**	**FY17**	**FY18**
Heads & Frames	1,529	3,711	4,490	183	445	507	13	32	39
Guts	2,524	7,268	6,942	555	1,599	1,527	257	741	708
Trims	918	2,227	1,247	110	267	233	8	19	62
Skins	458	1,484	499	55	178	100	4	13	3
Mortalities	736	161	2,218	138	30	415	37	74	111
Total Nutrients Recovered	6,164	14,851	15,396	1,041	2,520	2,782	319	897	924

MARINE **DEBRIS**

Tassal is investing significantly to address this material issue. We are working to raise awareness on our marine sites and include all employees in the conversation about what can be done to reduce marine debris leaving our farms to increase individual ownership and accountability.

An internal Marine Debris Working Group has been established with a focus on developing operational initiatives to reduce marine debris at the source. Policies and procedures are also in development internally.

The Marine Debris Hotline hosted through the TSGA marine debris working group is proving successful in facilitating the reporting and collection of debris items across the salmon aquaculture industry. Any marine debris collected by Tassal or reported by stakeholders is recorded by Tassal.

	FY14	FY15	FY16	FY17	FY18
Rubbish **removed**	20m²	33m²	23.5m²	72m²	79.5m²
Hours **collecting**	335	319	250	385.5	1,776*
Attribution to **Tassal farms**	12.91%	13.13%	30%	26.88%	27%

Remaining rubbish collected consists of domestic, recreational and commercial fishing.

 # Increase in marine debris attributed to Tassal from FY15 to FY16 is a result of greater accountability through the implementation of unique identifiers on Tassal infrastructure.

**Tassal 401 hours, pakana 1,375 hours.*

Marine debris is a major global issue and has a strong social change-management focus driven by both environmental and corporate partnerships across the world.

We know in salmon farming in Tasmania we contribute to marine debris, and while this may be proportionate to the greater debris stemming into oceans from land based sources, we must take accountability for our actions.

Aligned to the Tasmanian Salmon Growth Plan, the Tasmanian Government in 2017 stated it would hand power to MAST to issue demerit points and fines to companies who breached the State's new "Zero Tolerance" position on marine debris. Debris not only constitutes rope and other material which can be sourced to salmon farming, but also infrastructure which may be outside of lease zones – such as buoys, pens and corner markers.

Tassal has embraced the need for accountability and will project manage an industry-leading towards-zero marine debris program.

This program has an internal and external component, adopting lag indicators, cultural and behavioural change methodologies and community alignment plans, to measurably reduce our marine debris contribution by 17% over three years – from 27% contribution baseline to less than 10% by 2021.

At all times our focus, communication and program will adopt a continuous trend towards zero.

BASELINE:

Tassal has been recording all reported and collected debris during FY18. Of all the debris collected, Tassal; contributes on average 27%.

YEAR ONE

In the areas we operate and the shorelines we clean up:

- Establishment of Tassal Ocean Guardian Project Management Team
- Implementation of Tassal Ocean Guardian program with key community partners (educating our people on the issue of debris and inviting their participation to be part of the solution)
- Solutions in place to prevent all hazardous material (pens, buoys, feed pipe etc) from detachment
- Increase inspections, preventions and retrieval activities routinely
- Invite all Tassal suppliers to be Ocean Guardians and part of the solution (ensuring equipment meets standards to minimise debris possibility)
- Engage community advisory groups on initiatives, invite input and report on initial findings
- September 2019 undertake marine debris survey for all areas and compare with 2018 data
- 2019 Survey: no more than 22% of debris is of Tassal origin. No infringements.

YEAR TWO

- Implement solutions from internal working group, community advisory group and suppliers and service providers
- Cement Ocean Guardian ambassadors across farms and sites to proactively contribute to the zero-harm approach
- Continue inspections, preventions and retrieval activities routinely
- Aim to have convened three seafood industry marine debris forums with industry stakeholders to progress a whole of industry reduction plan
- September 2020 undertake marine debris survey for all areas and compare with 2019 data
- 2020 Survey: no more than 17% of debris is of Tassal origin. No infringements.

YEAR THREE

- Tassal Ocean Guardian program to become a more recognised community/industry program
- Continue inspections, preventions and retrieval activities routinely
- Development of an impactful activity to influence other sources of marine debris
- Work together with community groups to implement activities which will assist preventing other debris at the source, under the Ocean Guardian banner
- September 2021 undertake marine debris survey for all areas and compare with 2020 data
- 2021 Survey: no more than 10% of debris is of Tassal origin. No infringements.

TOWARDS ZERO

Our Planet

ENVIRONMENTAL **COMPLIANCE**

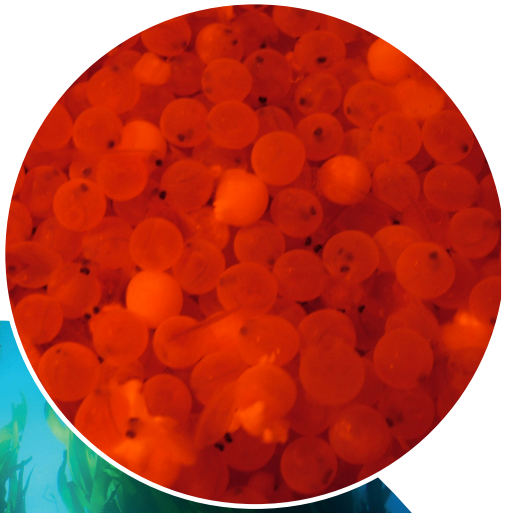
Tassal is committed to environmentally robust business practices and maintains a very low risk appetite with the objective of achieving full compliance with legal and regulatory requirements.

The Tasmanian salmon industry is one of the most regulated in the world and Tassal has a history of strong compliance with environmental regulation. The Environment Protection Agency (EPA), is the State's independent environmental regulator responsible for the environmental regulation of the salmon farming industry, including hatcheries, farms and processing facilities.

We have an internal Environment Team made up of 10 employees that has grown with the business over time. This team works with all departments to ensure we are identifying and assessing environmental risks and that we act to eliminate or minimise environmental impacts arising from our operations. This team also works with our Community Engagement Team to consult with and engage internal and external stakeholders, including local communities and regulators on relevant environmental matters.

Our annual third-party Aquaculture Stewardship Council (ASC) certification audits assess our compliance with local and national regulations at each freshwater and marine operations site. During the reporting period we maintained ASC certification across all our harvest sites. In addition, one new harvest site was entered into assessment and another new harvest site is scheduled for assessment in the second half of 2018. We are committed to the ASC salmon standard and will continue to pursue best practice across all our operations at all times.

In addition, as we work towards implementing the ISO 14001 Environmental Management System across our processing facilities, we have in the reporting period developed a compliance register to provide a system for the communication and monitoring of environmental compliance for all of Tassal's processing sites.



FRESHWATER **COMPLIANCE**

In December 2017, changes to the Environmental Management and Pollution Control Act 1994 (EMPCA) regarding the environmental regulation of finfish farming were passed into law. Finfish farming has now become a 'Level 2' activity under EMPCA.

For Tassal's existing freshwater facilities that already hold an existing authorisation to produce smolt, the Director of the EPA will, in due course, issue an Environmental Licence under EMPCA. Until an Environmental Licence has been issued by the EPA for existing activities, councils and the Inland Fisheries Service remain the environmental regulators for freshwater facilities.

Any proposed new inland farm, or significant expansion, intensification or modification to an existing farm, will now be environmentally assessed under EMPCA. The EPA has advised that, in most cases, an assessment will be carried out by the EPA Board under the existing assessment process for Level 2 activities. Where a permit application is made under the Land Use Planning and Approvals Act 1993 (LUPAA), the council must refer the application to the EPA Board. The Board, after completing its assessment, will then grant, or refuse to grant, an Environmental Licence.

Rookwood Road

Our Rookwood Road hatchery is one of the biggest in the world, with a capacity to produce eight million smolt.

The recirculation system minimises water usage and ensures a high quality of wastewater treatment. More than 98 per cent of water is re-used. The small amount of water lost in the recirculation process is replaced from an underground bore at the hatchery, rather than from the nearby Huon River.

Russell Falls and Karanja

Located near Westerway in the upper Derwent Valley, our Russell Falls hatchery is a flow through system that draws water from the Tyenna River. As part of our commitments to improving operations, we have installed a drum filter at the hatchery outfall. This filtering operation aims to reduce the amount of nutrients and suspended solids in the wastewater that is released back to the river.

MARINE FARMING **COMPLIANCE**

Benthic Compliance

Marine farming licence conditions require us to undertake prescribed compliance surveys at all active marine operation sites. These surveys are conducted by our internal environmental officers using a specialised remote operated vehicle (ROV), which provides video footage of the seafloor both within and outside of each lease area at compliance points determined by the EPA Tasmania.

Marine compliance reports only on 35m compliance sites.

	FY14	FY15	FY16	FY17	FY18
Number of **ROV Dives**	122	329	380	206^	182^
Number in **Compliance**	121	322	367	169	179
% **Compliance**	99.2	97.9	96.46	82.03	98.35

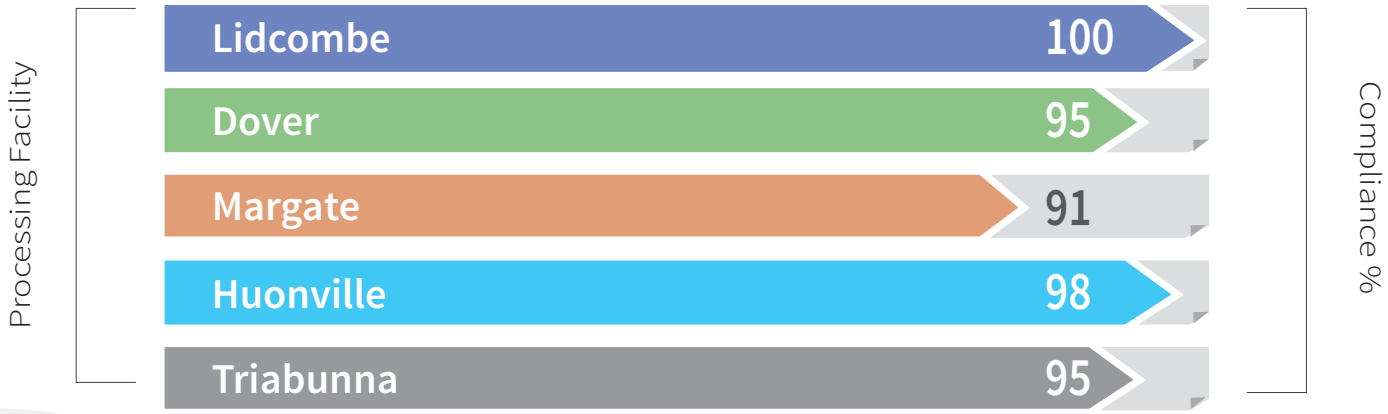
^2017 and 2018 data report only on 35m compliance sites

Nitrogen Cap (TPDNO)

Because nitrogen is the limiting nutrient in the Huon Estuary and D'Entrecasteaux Channel, the environmental impacts of salmon farming in these areas are managed by regulating the Total Permissible Dissolved Nitrogen Output (TPDNO) that enters the receiving environment from feed input. TPDNO is allocated for a rolling 12-month period with quarterly reporting requirements to the Marine Farming Branch (MFB) of the Department of Primary Industries, Parks, Water and Environment (DPIPWE). Our Technical and Planning team supervises feed use and regulatory compliance limits.

TPDNO	Tassal Limit	2014	2015	Tassal Limit	2016	Tassal Limit	2017	2018
Total Tassal Huon	425.00	254.51	323.22	325.00	312.26	325.00	294.94	247.52
Total Tassal Channel	821.03	637.99	673.57	921.03	850.11	1036.06	953.65	891.57
Total Tassal Farms	1246.03	892.5	996.79	1246.03	1163.37	1361.00	1248.59	1139.09
Compliance		**100%**	**100%**		**100%**		**100%**	**100%**

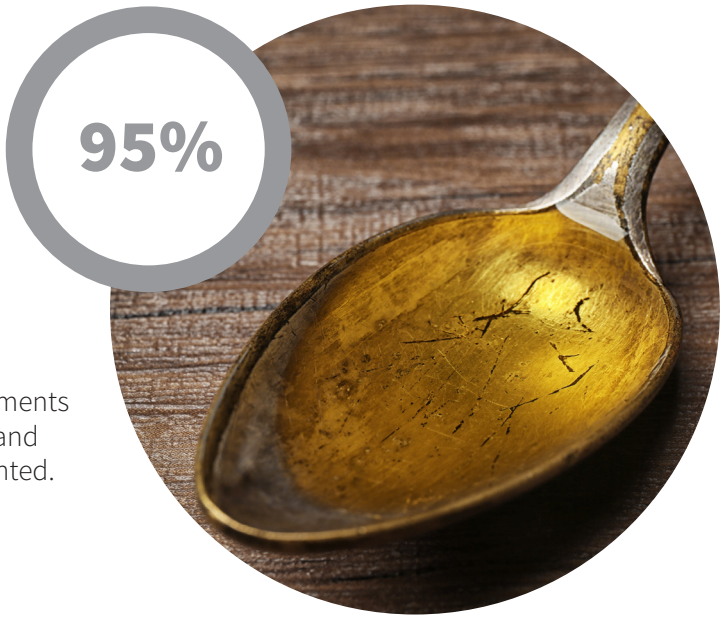
PROCESSING **COMPLIANCE**



Triabunna Rendering Facility

During the reporting period, Tassal received two infringement notices issued by the EPA for our Triabunna Rendering Facility.

Tassal has liaised extensively with the EPA to address these non-compliances. An Action Plan has been developed and is currently being implemented. Tassal commissioned a third-party consultant to assess the potential impacts of the events resulting in the infringements and it was concluded that the impacts were negligible and further preventative controls have since been implemented.



Dover Processing Facility

Our Dover Primary Processing Facility receives whole fish from our marine farms in Tasmania's south east which are gutted at the facility and either sent interstate as raw heads-on fish (HOG) to retail and wholesale customers, or to one of our value-add facilities in Margate or Huonville for further processing.

In the reporting period, we submitted an updated Biosolids Management Plan and Groundwater Management Plan for our Dover facility. We are also in the process of finalising plans for to upgrade the Dover Processing Facility. This will be progressed through a Development Application to the Huon Valley Council and the submission of a Development Proposal Environmental

Management Plan (DPEMP) to the EPA.

Huonville Processing Facility

At our Huonville facility, fresh salmon is filleted on an automated filleting line in preparation for being cold smoked.

Noise and emission monitoring were undertaken at the Facility and the results demonstrated compliance with regulatory limits. We also negotiated and finalised a Trade Waste Agreement with TasWater for the facility.

Margate Processing Facility

Our Margate Processing Facility produces a range of value-added Atlantic salmon products.

Tassal developed an updated Wastewater Management Plan for the facility and submitted the plan to the EPA in December 2017. The Plan contained commitments for the improvement of wastewater management at the Facility. Tassal is progressing well with the commitments.

In March 2018 we submitted the 2017 Margate Processing Annual Environmental Review as required under the facilities permit (EPN 7098/2). The review determined that the commitments made by Tassal fulfil the requirements of the Permit. In April 2018 the EPA conducted an audit of the Margate Facility, there were no major findings.

Lidcombe Seafood Processing Facility

Tassal owns and operates the De Costi Seafood Processing Factory in Lidcombe, NSW. The key areas of environmental management at the factory are waste water and solid waste removal. Waste water is managed under an industrial waste agreement with Sydney Water and Tassal is investigating projects to improve wastewater quality. A number of changes have been made to solid waste management to maximise recycling and to reduce potential impacts such as odour.

LIFE CYCLE **ASSESSMENT**

We understand the importance of efficient and sustainable use of resources, and during the reporting period we completed our fifth detailed Life Cycle Assessment (LCA) to better understand the environmental impacts of our operations. The LCA, conducted by Impacto, incorporates the upstream and downstream impacts associated with our operations and evaluates our energy use, water use, greenhouse gas (GHG) emissions and eutrophication potential.

For the first time this year we have extended the scope to include all administration and retail outlets as well as our De Costi Seafoods business and LPG use for forklifts at all sites. This, together with the 20% increase in biomass has influenced all impacts measured as part of this assessment.

It is important to note when comparing the year-on-year results that in the FY15 and FY16 assessments, some fuel was erroneously excluded which has been captured in FY18. Adjustments have been made for FY16, but unfortunately it was not possible to adjust for all. As such the results from FY18 include 19,518 GJ energy and 1,604 tonnes of CO_2eq for which there is no equivalent for the previous years, making the difference between the years artificially higher.

In the past, the results have been presented as overall totals as well as per HOG tonne to enable comparisons to be made between years. This year the overall totals for our operations are presented separately from the HOG tonne calculations which are based on salmon production data only, to take into account the fact that administration and De Costi Seafoods are not directly related to the HOG tonne calculations.

ENERGY **USE**

Energy is an essential business input and understanding our use is a key objective to establishing improvements and reducing our environmental impact. During the reporting period, Tassal used a total of 443,000 GJ of energy which was double the energy used in FY16. This was in part related to the extended scope and missing data as mentioned above, but also the significant increase in fuel used. The additional fuel was used for a combination of activities including the extra works vessels required to service the increase in biomass. It was also influenced by the diesel needed to run the new reverse osmosis barges in use at our Eastern and Okehampton farming zones as well as increased venturation activities across marine operations sites to optimise fish welfare.

Energy Consumption by Type (GJ)			
	FY15	**FY16**	**FY17**
Diesel	93,205	66,813	200,000
Petrol	39,156	40,614	48,600
LPG	-	-	36,400
Total non-renewable	132,361	107,427	285,000
Electricity	90,873	111,658	158,000
Total energy use (GJ)	223,234	219,085	443,000

There was also a 56% increase in electricity use which was driven by a combination of the change in scope as well as additional electricity used at the hatcheries, in particular Rookwood Road Hatchery which increased by 52% due to the addition of a second recirculation facility, resulting in a 50% increase in biomass. Fuel use by fleet vehicles increased by 70% in FY18 compared to FY16. The inclusion of De Costi Seafoods accounted for 20% of this, with the remaining 50% increase due to use of additional work vehicles and trucks and operations in remote locations, as well as a focus on internal assessment programs requiring centralised staff to visit remote sites at an increased frequency .

Road transport for feed was significantly reduced due to a reduction of biomass our Western Zone in Macquarie Harbour which resulted in a 51% reduction of feed being transported. Since this site is the longest distance travelled for feed delivery, the reduction in tonnage had a significant impact on the overall total. Transport to market was significantly increased this year due to a combination of increased biomass as well as an overall increase in freight sent by air which is more energy intensive.

Transport Energy (GJ)			
	FY14/15	**FY15/16**	**FY17/18**
Smolt	5,390	2,132	5,805
Feed	18,900	31,482	5,201
Processing	8,240	6,534	7,923
Market	54,200	35,511	79,759
Total transport energy (GJ)	86,730	75,659	99,688

GREENHOUSE GAS (GHG) **EMISSIONS**

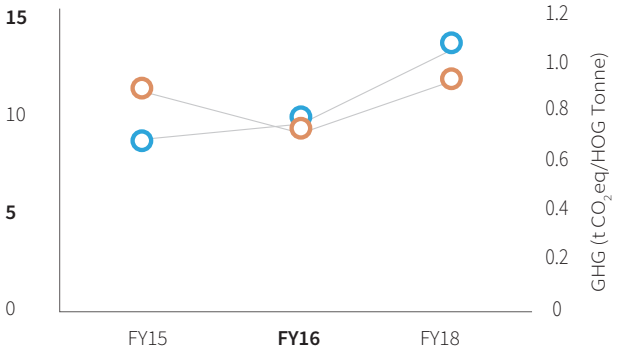
We recognise that increasing greenhouse gas (GHG) concentrations in the atmosphere and associated climate change risks need to be addressed at both a global and local level. Our Aquaculture Stewardship Council (ASC) certification requires us to complete annual GHG assessments for our sites to raise awareness of energy related issues. Despite this, fish farming is among the most climate-friendly forms of animal husbandry and protein production.

In the reporting period our overall GHG emissions increased as a result of the additional energy used, in particular the Scope 1 emissions from the increased fuel. Despite the increase in electricity, the associated emissions (Scope 2) decreased overall due to the change in energy mix, with less imports from the Basslink Interconnector, which has higher GHG emissions per kWh than other energy sources used in Tasmania .

GHG by Scope (CO_2eq)			
	FY15	**FY16**	**FY18**
Scope 1	9,225	9,265	19,224
Scope 2	5,048	3,594	5,019
Scope 3	5,300	4,935	8,017

**Diesel use in FY16 corrected*

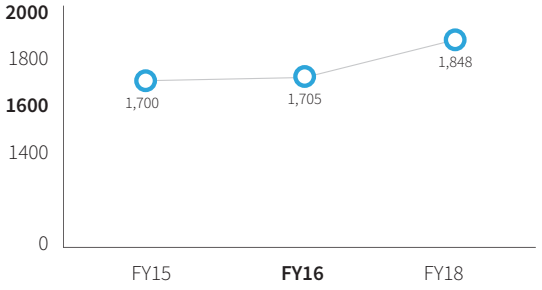
IMPACTS PER **HOG TONNE** (SALMON ONLY)



1 Does not include impacts associated with administration, retail and De Costi

2 HOG tonnes from FY15 and FY16 corrected from previous reports

EUTROPHICATION **POTENTIAL** (t PO_4eq)



- *Does not include impacts associated with administration, retail and De Costi Seafoods.*
- *HOG tonnes from FY15 and FY16 corrected from previous reports.*

Nutrients are lost to the environment at all stages of Tassal's production, with Marine Operations being the most significant source due to the uneaten feeds and metabolic by-products of salmon. This year, the amount of nutrient emissions increased overall due to the additional biomass produced, however they reduced per HOG tonne (from 0.7 to 0.6 t PO_4eq/HOG tonne) due to an improvement in the digestibility of the feed.

There was also a reduction of 12.3 tonnes PO_4eq as a result of the waste capture system implemented at Macquarie Harbour. This reduced the nutrient load by an approximate 7% in this location.

WATER **USE**

Freshwater is a limited natural resource, and as such we endeavour to ensure our water consumption is as efficient as possible.

Freshwater is used across our entire supply chain, from growing fish in our hatcheries to freshwater bathing in our marine operations and cleaning at processing facilities.

At our flow through hatcheries, water is diverted from rivers and returned relatively unchanged to the same river following treatment to remove nutrients from uneaten food and waste products. Our recirculation hatcheries reuse 98% of the water required, with the remaining 2% sourced from an onsite bore.

Our marine operations and the Dover processing facility source freshwater from dams or rivers. This water is collected close to the mouth of various estuaries, and once used is returned to the same basin with very minimal change in water quality. During the reporting period, we also commenced the use of reverse osmosis (RO) plants to produce freshwater for bathing operations at two of our marine sites where freshwater availability is limited.

Our Huonville and Margate processing facilities in Tasmania, and De Costi Seafoods in Sydney used reticulated water. This water is used for washing of equipment and is treated onsite prior to disposal. The Triabunna Fish Rendering facility sources freshwater from a private water storage dam.

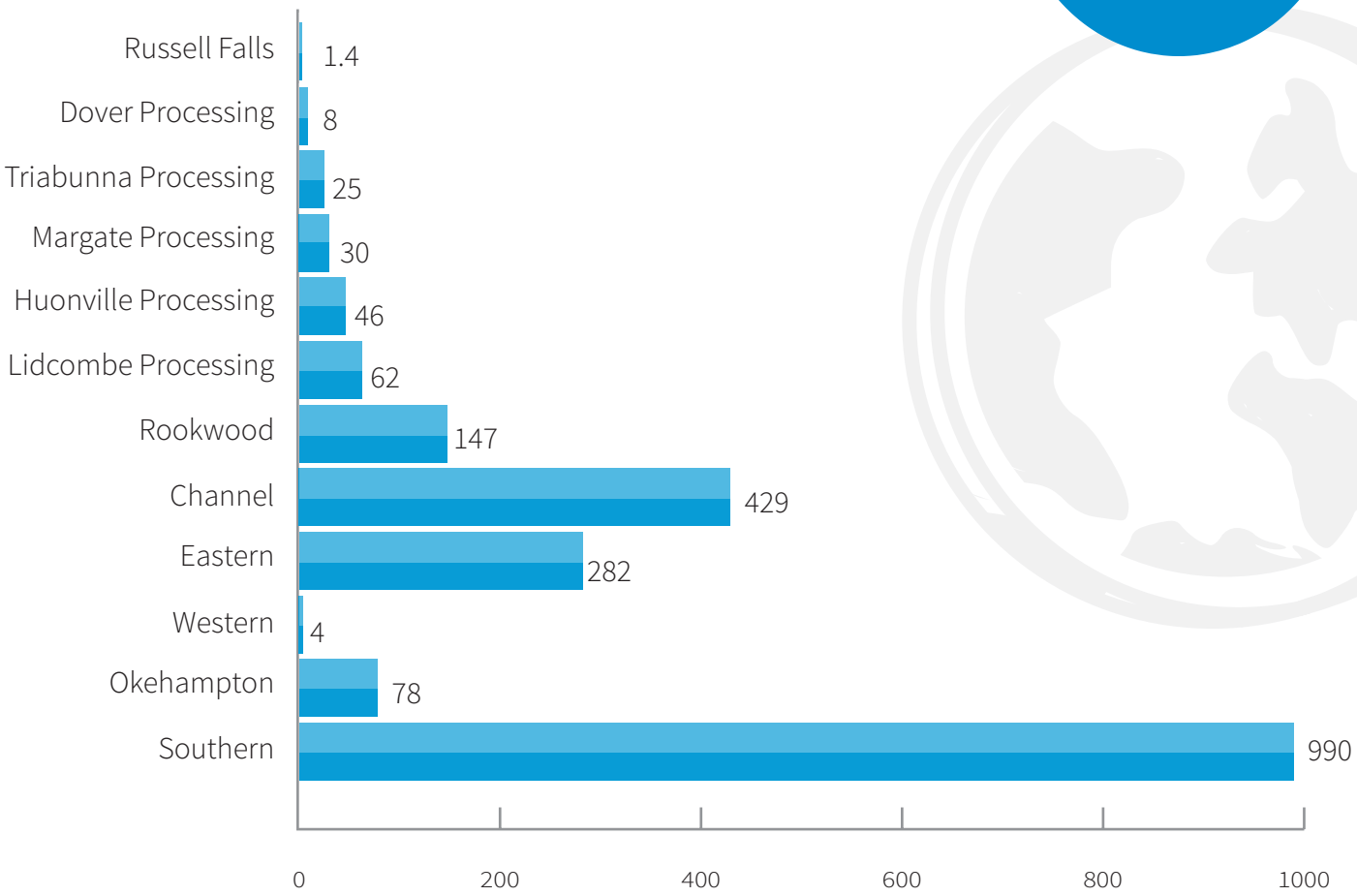
Water supplies are sourced under water licences from the Tasmanian Government, or through supply arrangements with water authorities or local land holders.

We also harvest rainwater for use in our marine and processing operations.

Total freshwater usage across **Tasmanian operations**

2,039ML

TOTAL WATER **USE BY SITE (ML)**



Our Planet

IMPROVING OUR **ENVIRONMENTAL PERFORMANCE**

We will use the results of this assessment to identify efficiencies and work with operational employees to establish measurable objectives and targets at each of our sites to create improvements across the supply chain.

We are committed to increasing energy efficiency and reducing GHG emissions throughout our operations. As our marine farming stage of production carries the highest environmental burden, we will concentrate our efforts here, with particular focus on the reduction of diesel fuel.

Further to this, we will also work with our processing facilities to look for opportunities to improve water use.

PROGRESS FOR FY18 **GOALS & TARGETS**

OUR PLANET

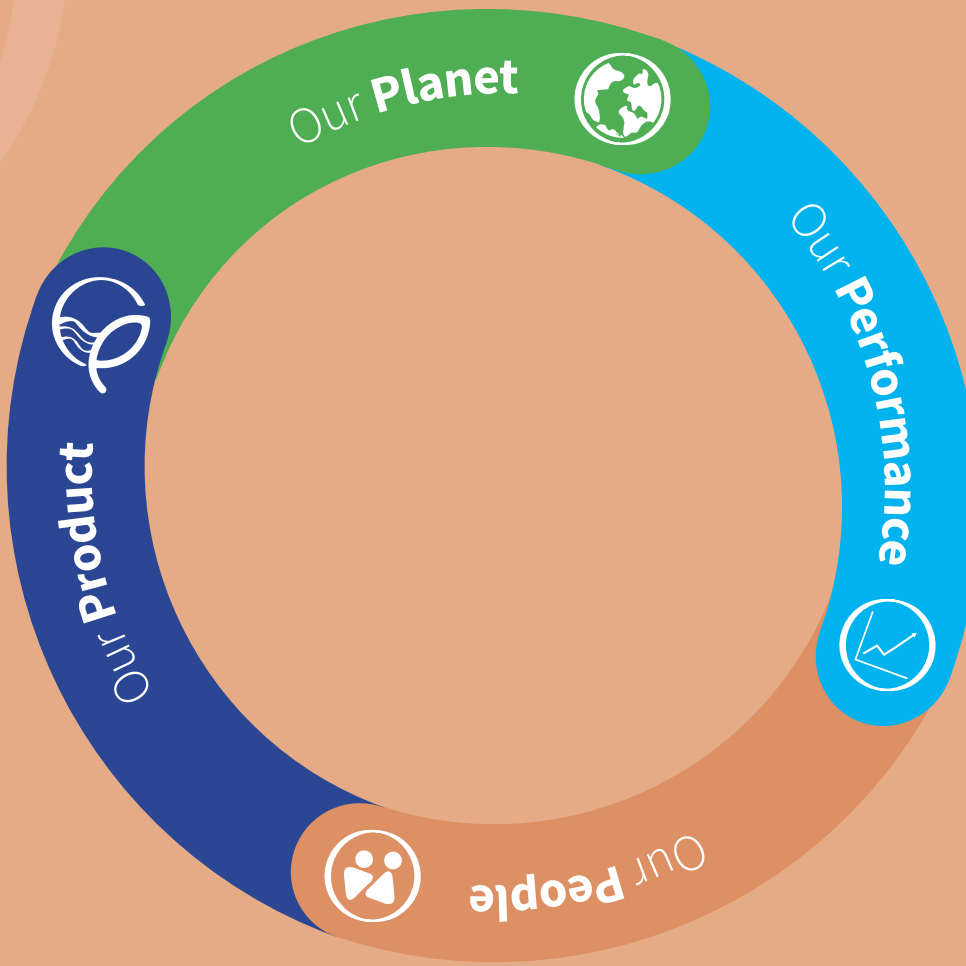
ENVIRONMENT & SUSTAINABILITY

✓ Maintain independently certified compliance for marine farms to world leading standard	100% ASC across all leases
✓ Operate at all times within regulatory requirements (local, state and national guidelines)	Achieve no compliance breach that impedes licence conditions or right to operate
✓ Improved and increased freshwater monitoring vigilance across all flow-through hatcheries	Develop and implement freshwater monitoring plans for individual hatcheries
✓ Roll-out of 'company-wide' recycling program	Extend recycling program to all facilities
– Obtain ISO-14001 certification across processing sites flow-through hatcheries	Develop Environmental Management System (EMS) aligning with ISO-14001
– Increase internal marine monitoring program	Roll out of intermediate surveys across all leases three times per year

✓ Achieved – Progressing ✗ Not Achieved

2018

OUR PEOPLE



OUR VALUES

Our People

Achieve Together

We collaborate to achieve, motivate and support each other in order to succeed together.

We Own It

We demonstrate true transparency while taking accountability for our actions.

Can Do - Safely

We promote Zero Harm while ensuring safety is our number one priority each and every day.

Passionate

We are committed to being constantly passionate, positive and enthusiastic about what we do.

A Better Tomorrow THE TASSAL WAY

The decisions we make and actions we take define us, they are balanced across, and tested against: operational; environmental; economic; and community factors – whilst always ensuring our people are safe. This is the only way we will do business – it is, the "Tassal Way" which means we are better together.

OUR 'RIGHT TO GROW'

Our Planet | Our Product | Our Performance | Our People

Our 'Right to Grow' is driven from our balance across our 4P's:

Our People | Our Planet | Our Product | Our Performance

TOGETHER WE:

- ✓ Are passionate about what we do and we love to do it safely and proudly
- ✓ Invest in technology and science, which reduces our environmental footprint on this earth
- ✓ Can be awesome, not average, and believe our small island operations can lead to big world contributions
- ✓ Are inspired to help communities prosper through meaningful jobs and opportunities
- ✓ Believe in scientific, technical and operational excellence - above and below the water - helps us to protect mother nature and all creatures great and small
- ✓ Are accountable to each other and our communities
- ✓ Will be responsible and viable today to invest in a more sustainable tomorrow

Signing on behalf of the Tassal Board and Executives:

MARK RYAN - Managing Director and CEO

Date

MY PLEDGE:

"I am a proud member of the Tassal team – committed to my part in the responsible contribution to achieving our team goals aligned to the Tassal Way".

Employee Signature

Name

Date

Better Together

tassal

A BETTER TOMORROW

During the reporting period we implemented metrics against initiatives under our four core pillars (People, Planet, Product and Performance). These were cascaded to teams and individuals across our business - directly aligned to company and individual goals, targets and performance indicators.

Supporting the delivery of the balanced scorecard, we rolled out the Tassal Way - a charter each and every employee signed onto about the way we do business, which ultimately will deliver sustainable and transparently measured outcomes across all our business endeavors.

It is fundamentally our belief if our people ambitions are achieved, then they will invest and care for the planet and our product in the right way - which ultimately underpins a healthy performance.

SAFETY OF OUR PEOPLE: OUR LEADING PRIORITY

Tassal's ability to create a safe space for all workers and people affected by our work is essential to the long-term sustainability of our business. It is a core component of our right to operate as a business. We take our regulatory requirements seriously, however, our Zero Harm for Everyone - Everywhere aspiration aims well beyond regulatory requirements to align with the shared values found in the communities in which we operate.

Tassal's approach to Workplace Health and Safety (WHS) management is to create a fully integrated and truly interdependent zero harm culture company. Tassal aims to achieve this by purposefully engaging each staff member to take care for themselves and take care for others (I take care, I care for approach). Key people at each site are trained through a dedicated WHS leadership program to drive this safety aspiration. A fully mature WHS compliance program supports each employee and person affected by our business. Our dedicated WHS department is always available to anyone who seeks further technical advice or guidance on any WHS matter.

We have achieved regulatory compliance achieved across all operations and all sites are accredited under the AS 4801 and OHSAS 18001:2017 safety standards. WHS policies, procedures and systems are in place for managing contractors and suppliers, which are continuously reviewed and updated accordingly. Formal agreements with trade unions are also included in staff enterprise bargaining agreements (EBA).

Cultural and behaviour improvement measures include:

- Safety Golden Rules
- Take 5
- Compliance scorecards
- ROCK Driving Safety Leadership program
- Individual staff partnership agreements
- Introduction of a structural system to measuring safety culture (no safety culture survey was undertaken during the reporting year)

Evaluation of our approach to managing WHS is undertaken routinely as part of Tassal's WHS risk monitoring and review through two site scorecard audits. One audit focuses on WHS compliance and system management while the other has been crafted to measure the safety climate of the site and how well the site managers are driving the right safety culture. Close monitoring of relevant lead and lag indicators is also critical to effective evaluation.

These indicators are examined so that feedback can be given to sites to take appropriate action and reduce the risk of injury. Review of the WHS system through third party audits (standards accreditation) and comparing results across industry sectors play an important role in measuring our safety success.

WHS **INNOVATIONS**

As part of our approach to best practice WHS, we like to problem solve, create and innovate. If we are able to design a process or equipment that will allow a task to be performed more safely, we will endeavour to deliver this new approach to our WHS team.

Mini-Sanctuary Pens

Tassal has extended the scope of its sanctuary pen roll-out for new 168m circumference pens to its pre-existing 120m pens. Due to the significant financial investment and lag time from suppliers of the 168m pens, not all sites will have access to the sanctuary style farming system immediately. In the interim, our Channel Zone has developed an outer seal fence and walkway system for the 120m pens which will reduce seal interactions, provide protection for staff and reduce slip or trip risk to WHS.

Portable Capstans

Our Southern Zone marine operations team, led by the site WHS Compliance Coordinator, has developed a portable petrol-powered capstan to fit to the inside structure of the new 168m sanctuary pens. This innovative continuous improvement achievement has reduced reliance on vessel use and reduced the risk of property damage and WHS injury using high-risk vessel capstans. The site has developed a bracket which houses the portable capstans for easy fitting and removal. The initiative took several months, many risk assessments and prototypes before a final design was fully developed. The team is now aiming to further develop this system to accommodate 120m pens.

Companion Barges

Tassal's Fish Performance and Marine Maintenance departments have teamed up with feed equipment suppliers and vessel builders to construct a series of companion barges to feed fish. These barges can either accompany a 'mother barge' or stand separately on a lease fitted with equipment to feed fish. With the capacity to remotely operate, these barges need less contact time with staff to be manned or maintained. This reduced requirement to access barges will directly lower the risk of safety incident. Vessel to vessel transfer can be a hazardous component of any job, and reducing it in any way possible provides a positive safety outcome.

ROCK Driving Safety Leadership Program

The long-established ROCK Driving Safety Leadership Program has seen 39 of Tassal's current and upcoming leadership group gather together over four two-day sessions to work on personal leadership and driving a safe working culture. The sessions focused on building personal resilience to do what is right and lead WHS from the frontline. The program provides an opportunity for participants to reflect on the leadership and communication styles of their teams for development or redirection. Extending on from this was content delivery from WHS specialists on key areas of the safety system so that participants are able to sharpen their technical safety knowledge.

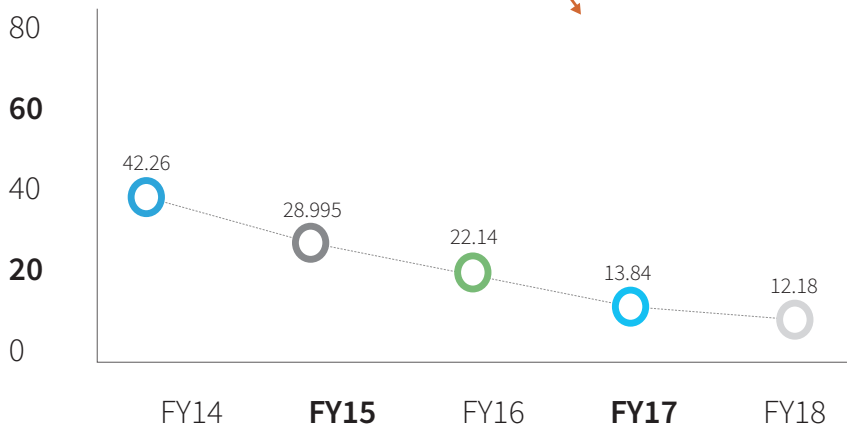
Workplace health and safety committees

All (100%) Tassal employees are invited to attend site WHS Committee Meetings. Tassal's Consultative Arrangements Procedure sets a minimum of quarterly meetings at any site with a requirement for 50:50 ratio of workers to management in attendance. This meeting format ensures that relevant WHS incidents across the business are circulated, hazards from the site are discussed, and effective controls are implemented and added to each sites' Corrective Action Plan.

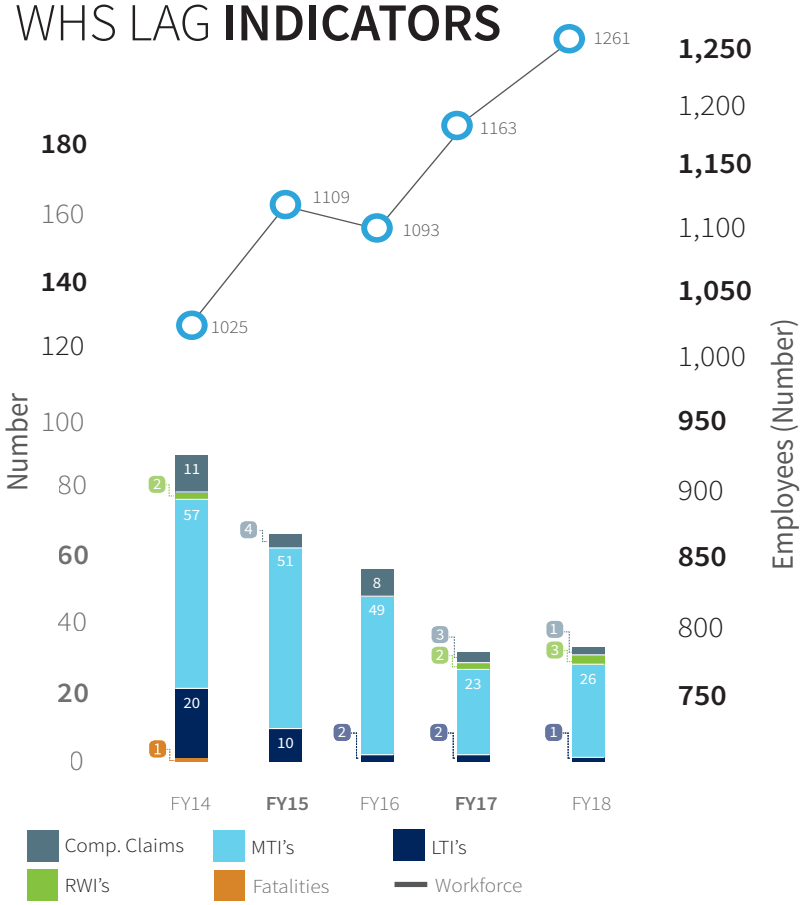
Our People

TOTAL RECORDABLE **INJURY FREQUENCY RATE (TRIFR)**

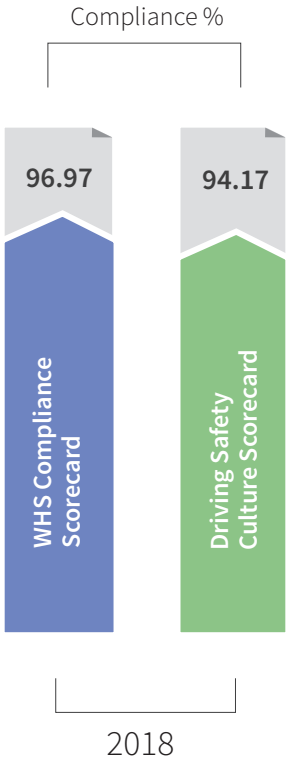
Our TRIFR continues to decrease



WHS LAG **INDICATORS**

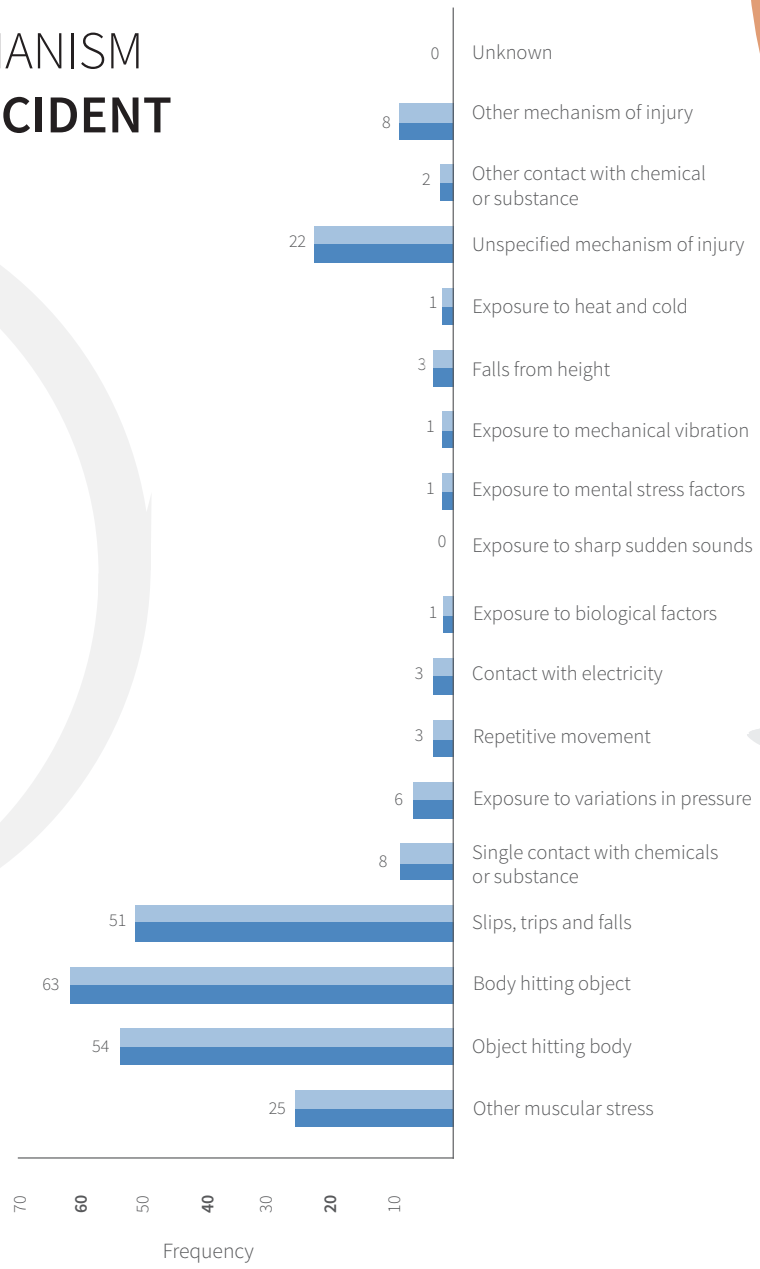


LEAD **INDICATORS**



Our People

MECHANISM **OF INCIDENT**



PROGRESS FOR FY18 **GOALS & TARGETS**

PEOPLE SAFETY
NO HARM TO OUR PEOPLE

Achieved | Progressing | Not Achieved

Achieve Zero Harm for Everyone, Everywhere	95% overall score for WHS Compliance Scorecard
Zero serious or significant incidents	Driving Safety Culture Scorecard target >94% overall score
Zero legislative breaches (compliance, right to operate across all of business)	>70% controls to be level 1 or 2
	0% overdue safety actions
	Lagging indicator targets
	- TRIFR **<10** - MTIFR **<10** - Fatalities **0** - Incident Rate **0** - LTIFR **0** - Average Time Lost **0**

WORKING AT **TASSAL**

Tassal's human resources team has had one of its' busiest years due to the Okehampton recruitment program, new staff required at Port Arthur following lease re-stocking, plus our traditional processing expansions.

Employee Engagement

We have continued to place a great emphasis on improving employee engagement. We believe that the best outcomes are achieved when people are doing their best work, feel valued in the workplace and love doing it. Our employees are the heart of Tassal and we strive to look after everyone. We encourage all staff to be awesome, not average.

This year we have rolled out new style position descriptions (PDs) across the business, connecting the employee with the role that they play at Tassal and outlining how the company values directly correlate to their role. The PDs give clarity and certainty to show what their position purpose is, attributes for success, specific measurables on what they need to achieve, and how what they do is important and impacts the organisation and the customer. The new style position description is a 'live document' that is reviewed monthly and updated when necessary.

The continued roll out of the 5 FOCUSed Conversations framework, has helped us to establish more meaningful and effective conversations between managers and team members about feedback, objectives, capability development, underlying motivators and strengths. Feedback from staff about the program has been extremely positive, with staff now having a monthly one on one conversation with their Manager, allowing us to remove the requirement for an annual performance review.

Employment Conditions

Our aim is 'to value and to be valued by our best on ground team'. In order to achieve this, Tassal is committed to providing conditions of employment that are competitive and attractive to secure and retain the best candidates. This is demonstrated by our retention of Employer of Choice accreditation. The value we place on employees is supported by our systems, policies and procedures that address numerous aspects of employment, including our zero harm focus, diversity and code of conduct.

Tassal's employment conditions frequently surpass legislative requirements such as above minimum wage payment, and parental leave top ups. We also provide staff with flexibility in rosters and work arrangements where possible. All conditions of employment are consistent with our legal obligations and are covered by the provisions of the NES (National Employment Standards) and Paid Parental Leave Bill 2010 under the Australian Fair Work Act 2009.

Terms and conditions of employment are designed around modern awards, union negotiated agreements and common law contracts, depending on the employees' position within the company and location. Tassal employees actively contribute to and participate in establishing work standards, for example, union negotiated Workplace Partnership Agreements (WPA) and one on one negotiations, which outline many aspects of workplace conditions including complaints resolution and performance management.

Complaints Resolution

It is essential for us to work in an environment that is harmonious and free from unresolved conflict. To achieve this, we believe that by following our code of conduct and ethical behaviour policy along with good management practices, we should be able to limit and readily resolve any conflict or grievances that arise.

We are committed to minimising the incidence of grievances caused by disagreements or issues that are unable to be resolved at a local level. We deal with issues promptly and strive to avoid situations escalating into conflict. Confidentiality is respected and maintained at all times within the constraints of the need to fully investigate the matter, subject to any legal requirements for disclosure. Where satisfactory resolutions are unable to be achieved by discussions with relevant management, the process through Fair Work Australia, as outlined in the Australian Fair Work Act 2009, is available to be used when all other avenues have been exhausted.

Healthy workplaces

Mentally healthy workplaces are positive, productive, and get the best out of their people. In the reporting period we continued to improve this understanding in our workforce. With one in five workers likely to experience a mental health condition at some point during their life, we have doubled the number of accredited Mental Health First Aid employees, who have the skills to recognise the signs and symptoms of mental health conditions and be able to provide informed assistance to fellow employees. Besides our Employee Assistance Program, other initiatives include an onsite Counsellor at one of our Processing facilities.

FULL TIME EMPLOYEES

704 Males

199 Females

PART TIME EMPLOYEES

47 Males

15 Females

permanent employees by employment type

PROGRESS FOR FY18 **GOALS & TARGETS**

PEOPLE

HIGHLY ENGAGED & PRODUCTIVE WORKFORCE

Achieved | Progressing | Not Achieved

Assess current reality of where employee engagement score sits	Conduct baseline employee engagement survey
Strengthen learning and development across Tassal	Develop learning and development strategy
Align all position descriptions through 'Project Re-Align'	Roll out success focused position description alignment project

New hires by age, gender & region

	Female <30	Male <30	Female 30 - 50	Male 30 - 50	Female >50	Male >50	Total
NSW	94	94	43	46	6	6	289
QLD	–	–	1	2	–	–	3
TAS	51	142	26	99	–	17	335
VIC	1	–	–	2	2	–	5
WA	–	–	–	1	–	–	1
Total	146	236	70	150	8	23	633

Leavers by age, gender & region

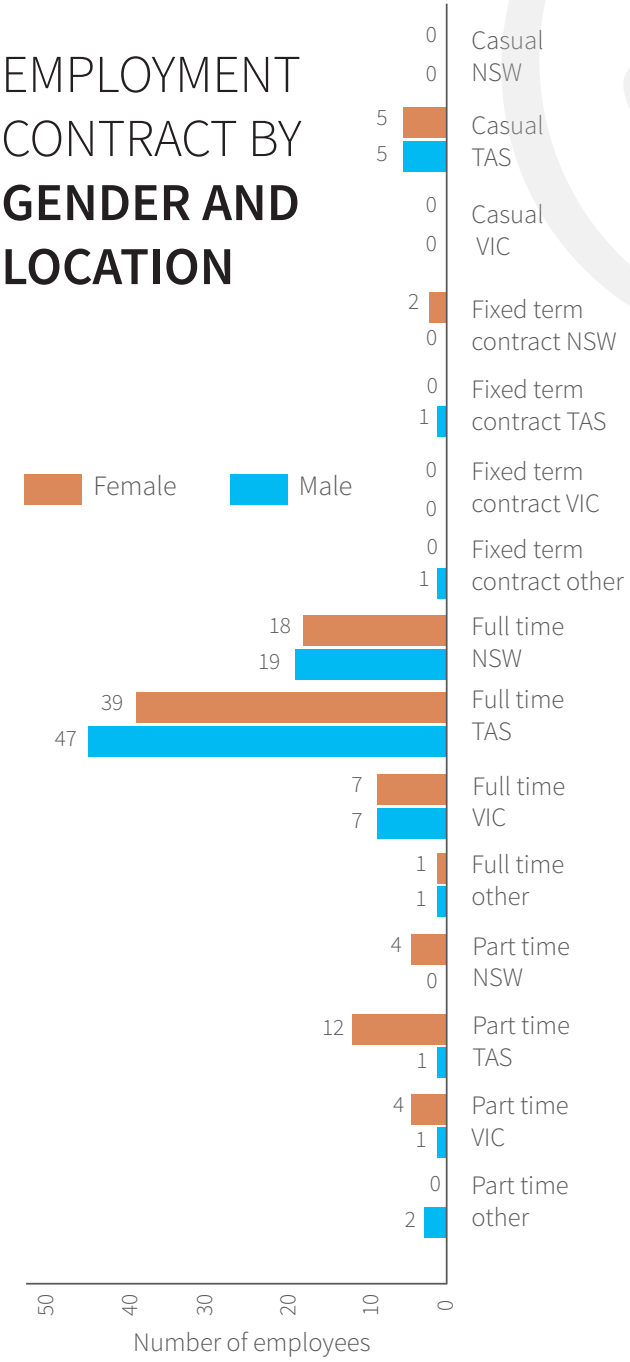
	Female <30	Male <30	Female 30 - 50	Male 30 - 50	Female >50	Male >50	Total
NSW	13	16	8	22	1	2	62
QLD	–	–	–	1	–	–	1
TAS	14	38	11	38	3	6	110
VIC	–	–	–	–	–	1	1
WA	–	–	–	–	–	–	0
Total	27	54	19	61	4	9	174

Turnover rate by age, gender & region

	Female <30	Male <30	Female 30 - 50	Male 30 - 50	Female >50	Male >50
NSW	118%	76%	21%	33%	5%	9%
QLD	–	–	–	–	–	–
TAS	54%	25%	14%	12%	7%	6%
VIC	–	–	–	–	–	50%
WA	–	–	–	–	–	–

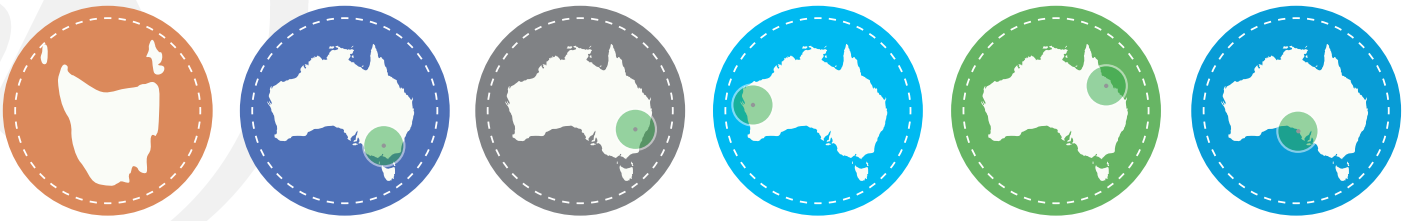
Total turnover rate – 19%

EMPLOYMENT CONTRACT BY **GENDER AND LOCATION**



Our People

WORKFORCE **STATISTICS**



TAS
76% Male
24% Female

VIC
42% Male
58% Female

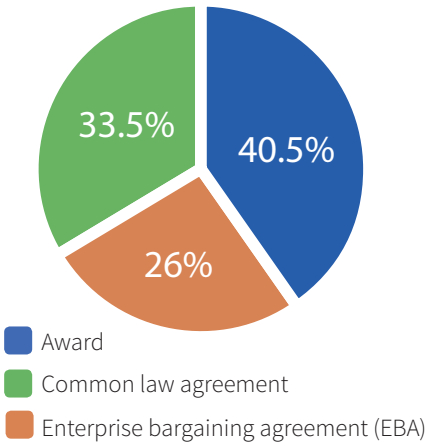
NSW
57% Male
43% Female

WA
100% Male
0% Female

QLD
67% Male
33% Female

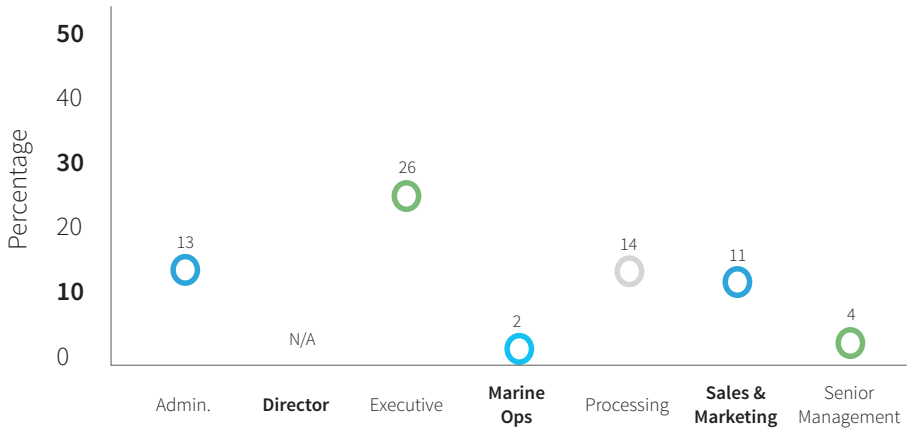
SA
100% Male
0% Female

WORKPLACE **AGREEMENTS**



GENDER **PAY GAP**

Calculated as the difference between women's and men's average. Full time employees only throughout Australian operations



PARENTAL **LEAVE**

Employees who were entitled to parental leave

500 males **187 females**

Employees taking parental leave

23 males **15 females**

Employees returning to work and still employed after taking parental leave

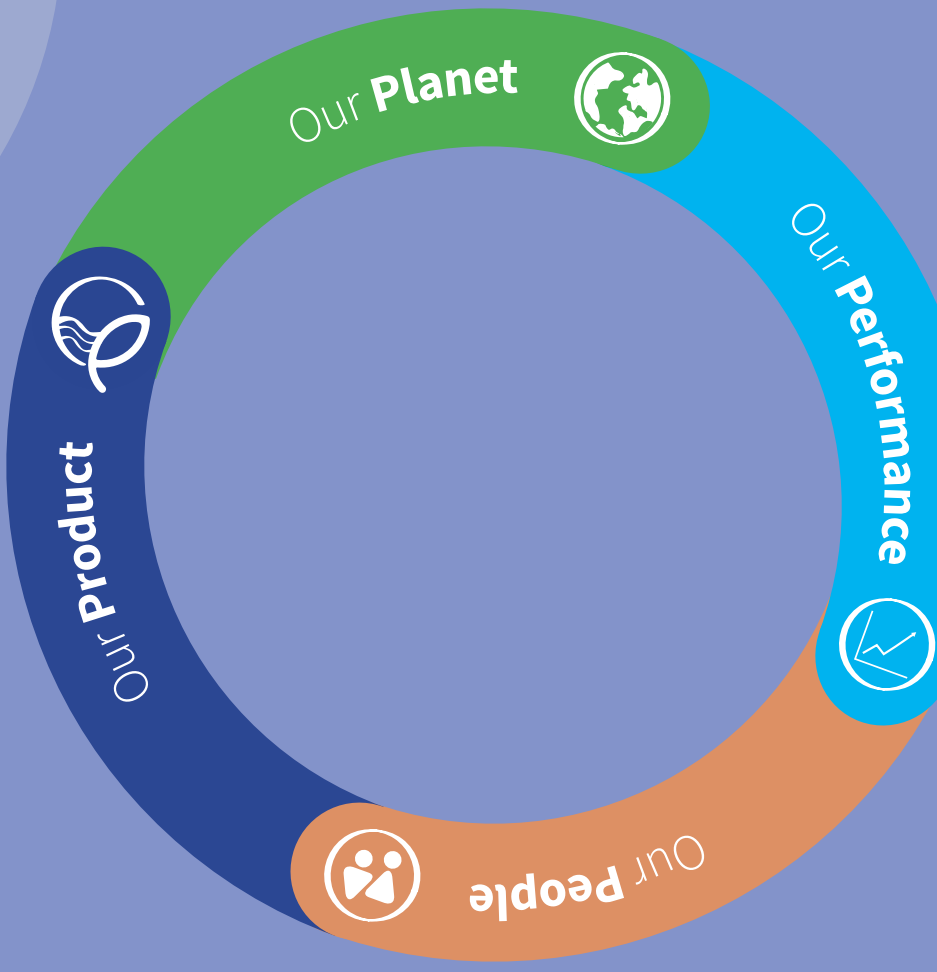
23 males **13 females**

2018

OUR PRODUCT

Our responsibility for animal welfare runs across the salmon we farm, the wildlife that interact with our operations and the seafood species we source through our Lidcombe facility. There is general acceptance by both commercial and recreational sectors careful and controlled capture procedures should be welfare oriented, thereby contributing to a healthier environment and stable aquatic ecosystems.

Our company veterinarians play an important role in dealing with a diverse range of interactions in our marine operations.



SALMON **HEALTH AND WELFARE**

The health and welfare of our salmon is of critical importance to Tassal. We encourage all employees to identify fish welfare risks and improvement opportunities, and foster a company culture that prioritises animal welfare at all stages of the salmon lifecycle.

Our dedicated fish health department includes five fish health professionals including two aquatic veterinarians who work closely with all our farming operations. Internal fish health management plans (FHMP) detail procedures and documentation that underpin the structure of the fish health facilities and services within the company. FHMPs incorporate components that relate to Tassal gaining an even better understanding of the health of our fish and supporting procedures targeted at preventative rather than remedial actions.

FHMPs are reviewed and updated annually by our Senior Manager – Animal Health and Welfare, our senior aquatic veterinarian and the fish health team to ensure they remain a comprehensive and effective tool to maximising fish health.

Salmon face different health challenges throughout their lifecycle. We work to mitigate these challenges through a variety of operational and technical mechanisms including: transport improvements; environmental monitoring; feed and nutrition; active health monitoring and mitigation of health risks and wildlife exclusion.

	Amoebic Gill Disease (AGD)	Pilchard Orthomyxovirus (POMV)	Yersiniosis
CAUSE	AGD is caused by the *protozoan amoeba* species Neoparamoeba perurans which naturally exists in the marine environment. The amoeba causes irritation to the gills of salmon, resulting in respiratory compromise and decreased performance in affected fish.	POMV is an enzootic pathogen in Tasmanian marine waters. We experienced a minor outbreak of POMV in juvenile fish at our Southern Zone during the reporting period. Our response was to immediately cull the index pen and increase dive frequency to minimise the shedding of virus (i.e. daily mortality retrieval). We also enacted an elevated biosecurity protocol around affected fish to reduce transmission of viral vectors with vessels. Disinfection of equipment, vessels and divers is now a critical focus point.	Yersiniosis is a bacterial infection which is enzootic in Tasmania. It classically affects juvenile fish in the freshwater hatcheries, and has on occasion emerged in some seawater sites.
ACTION PLAN	To reduce stress on our fish, we have a stringent surveillance program in place and bathe fish in freshwater on a pen by pen basis before the parasite burden grows large.	Tassal implemented measures designed to improve the health and resilience of smolt going to sea, so they might be less susceptible to POMV. Early indications are very hopeful. The development of two different types of POMV vaccine is ongoing, we are expecting the first fish to be vaccinated against POMV in 2019.	An effective vaccine has been developed and fish in hatcheries are routinely immersion vaccinated at a very young age. Where there is a known risk of Yersinia in seawater sites, the fish receive another Yersinia vaccination by injection to protect them.

Our Product

FISH **MORTALITY**

During the reporting period we experienced mortality of our 17-year class fish at our Okehampton Bay site. This mortality was the result of a combination of handling error and equipment failure over the summer period.

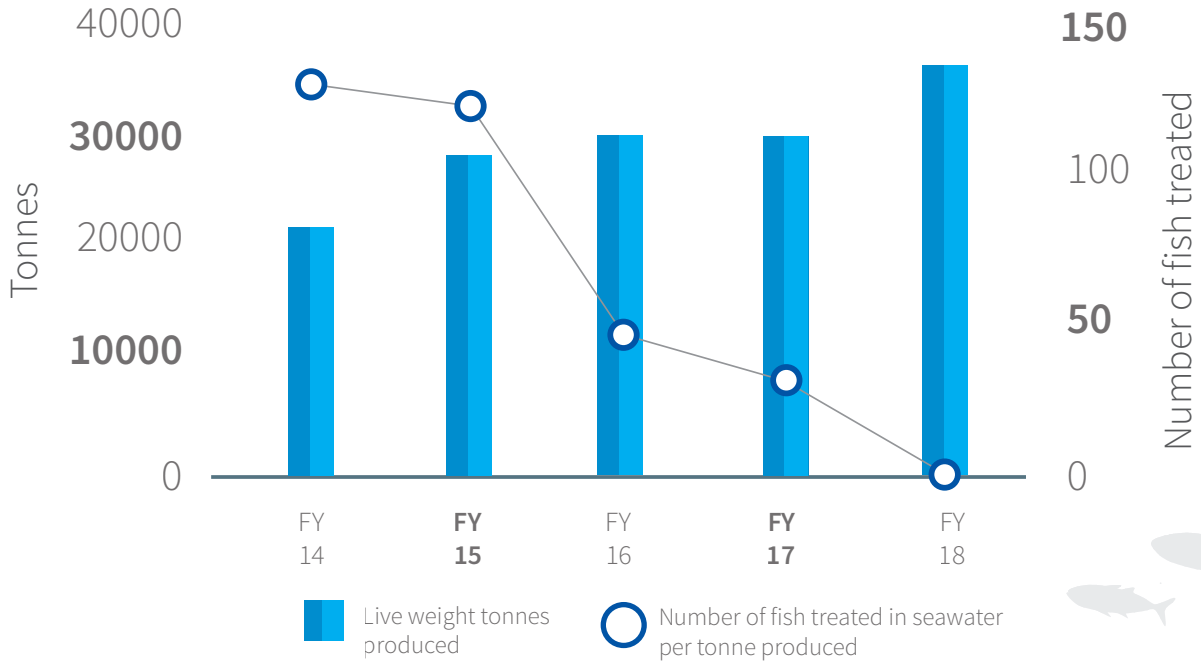
To prevent reoccurrence, we have trained crew and updated procedures and are confident competency levels are high. We have also installed a second reverse osmosis (RO) system for redundancy and designed and purchased liners with greater strength and quality to store water.

ANTIBIOTIC **USAGE**

ANTIBIOTICS USED FY18

ZERO

NUMBER OF FISH TREATED
IN SEAWATER PER TONNE HARVESTED



Antibiotic use in our operations is rare and limited to isolated health issues, and we have reduced dependency on antibiotics through alternative health strategies. We only ever treat our fish in the best interest of their welfare and under veterinary supervision and have a policy in place to control unwarranted delivery of antibiotics.

We do not treat our fish prophylactically or use any antibiotics listed as critically important for human health by the World Health Organisation (WHO).

Period	Grams antibiotic used per tonne of fish produced		
	Marine sites	Hatcheries	Total
FY2014	7.82	2.50	10.32
FY2015	4.84	0.78	5.62
FY2016	9.92	1.54	11.46
FY2017	17.13	0.03	17.16
FY2018	0	0	0

NATIONAL **RESIDUE SURVEY**

Residue monitoring of chemical residues in food through the National Residue Survey (NRS) is part of the Commonwealth Department of Agriculture and Water Resources strategy to minimise chemical residues in agricultural produce. Aquaculture operators, as food producing companies, are obliged to provide samples when requested to do so by Government.

The sites selected, number of samples and time of sampling are identified through a random sampling mechanism, and reported anonymously in the event of no residues being detected.

Tassal supports the NRS as an essential tool to demonstrate lack of residues and ensure overseas market access.

ANAESTHETIC **USAGE**

Anaesthetic is used in our freshwater and marine operations to improve the welfare of fish during handling events. The two primary anaesthetics Tassal uses are Aqui-s (isoeugenol) which is a registered product for salmonids that does not require a withdrawal period, and Benzocaine which is used on permit at our hatcheries.

SALMON **ESCAPES**

SALMON ESCAPES FY18

ZERO

STOCKING **DENSITY**

Tassal has some of the lowest stocking densities in the world. Free of sea lice and parasites, each pen contains 99% water, and 1% fish to ensure the fish have plenty of room to move to school and swim around. This allows oxygen to flow through the pen, maintains water quality, prevents disease risks and provides a healthy environment for our salmon.

BIOSECURITY

Biosecurity is an essential element of fish health, safeguarding the sustainability and profitability of our business. Biosecurity at Tassal is planned for and implemented across all departments, not only farming operations. We look at all our potential risk pathways and determine mitigation and control measures. We don't just think about potential fish health issues, but also marine pests, so that we play our part in protecting Tasmania's environment.

Our biosecurity measures include rigorous fish health monitoring and surveillance for early detection of pathogens (viruses, bacteria and parasites). We endeavour to keep different farming regions isolated from each other to limit any potential for spread of risk organisms. Communication within the industry and with government with respect to biosecurity risks has also been prioritised.

In the reporting period, Tassal partnered and with Industry member Petuna to set a new benchmark in aquaculture biosecurity standards in Tasmania, entering into a joint venture, under which both companies will cooperatively manage their marine farms in Macquarie Harbour with an aim to deliver delivering better biosecurity and environmental outcomes.

The joint venture reflects international best practice in biosecurity and reflects the principles outlined in the Tasmanian Government's Salmon Sustainable Industry Growth Plan which encourages improved area management planning.

WILDLIFE **MANAGEMENT**

Tassal is committed to managing our salmon farming operations in an environmentally sustainable manner. We aim to reduce negative wildlife interactions through responsible management, with a focus on preventing harm to wildlife, our employees and our salmon. Despite our very best efforts, some wildlife can have negative interactions with our farms. It is our policy to always proactively report on any negative wildlife interactions, and we do so on the Tassal Sustainability Dashboard, housed on our website within 30 days of any incident.

SEAL INTERACTIONS

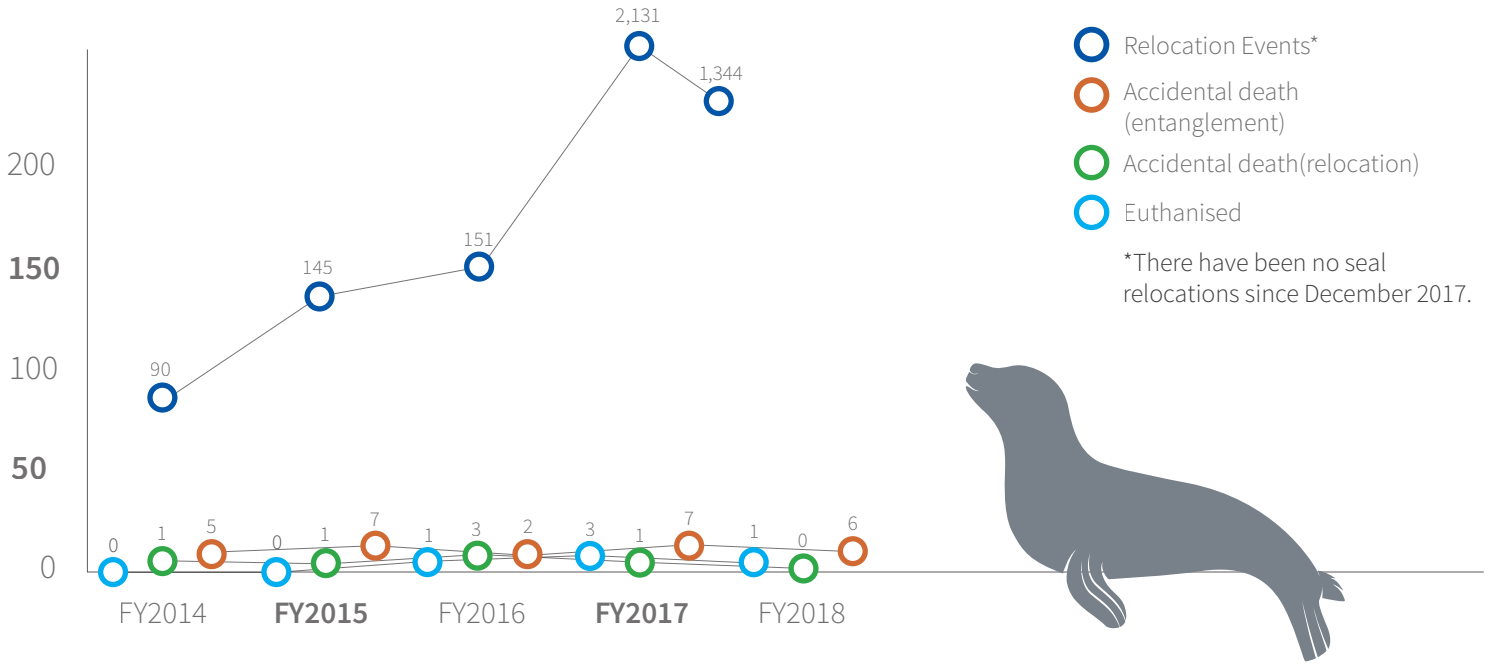
The majority of interactions between our farming operations and marine mammals is with the Australian fur seal and the New Zealand fur seal. Interactions typically peak during winter when seals disperse from their summer breeding locations. Interactions include seals that create holes in nets to access stock and interfere with farm infrastructure and vessels.

In the reporting period there were six accidental seal deaths across our marine farming operations. In each instance a comprehensive incident report was completed by onsite employees, including a risk assessment and action plan to prevent reoccurrence. One seal was humanely destroyed (euthanised) by our company veterinarian under approval by the Wildlife Management Branch (WMB) of the Department of Primary Industries, Parks, Water and Environment (DPIPWE). Seal interactions can present an unacceptable risk to the health and safety of our employees and in this instance one of our employees was bitten by a seal in a pen and suffered a puncture wound to their arm.

In September 2017, the Tasmanian Government announced the decision to end seal relocations. Tassal responded by immediately ceasing the relocation of seals in December 2017, which had been a tool for managing interactions with our marine farms. At this time, the Tasmanian Government also announced a plan to review and amend the Seal Management Framework. The Seal Management Framework provides a management structure that describes mechanisms, procedures and requirements for managing seal interactions with marine farms so as to minimise risks to farm workers and seal welfare.

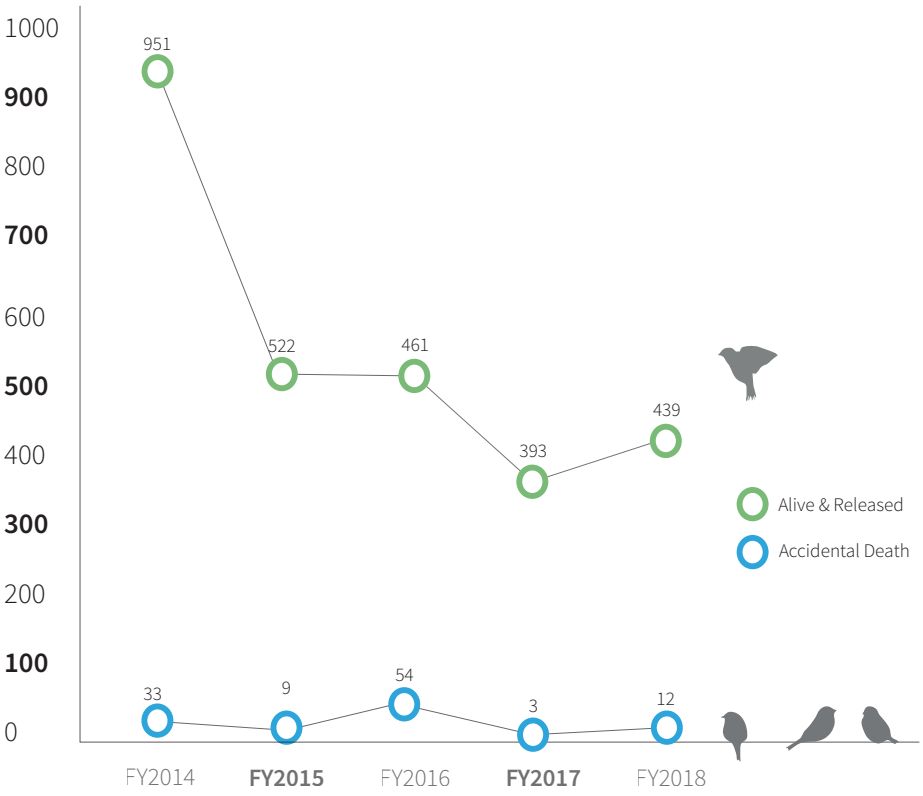
Ocean Sanctuary Pens

Our primary strategy for reducing wildlife interactions is through exclusion. We have continued the roll out of our Ocean Sanctuary Pens in FY2018, installing 65 across our operations in the reporting period. Our seal prone sites have been the priority for implementation. We are replacing current infrastructure as quickly as manufacturing requirements allow and aim to have full coverage by 2020.



BIRD INTERACTIONS

Most birds interacting with marine farm infrastructure in Tasmania are not threatened and include gull and cormorant species roosting or resting on nets or trying to access fish stocks. Bird entanglement can potentially cause injury or death, however, in the majority of cases, birds are released unharmed.



PROGRESS FOR FY18 **GOALS & TARGETS**

FISH SAFETY

NO HARM TO OUR FISH

Achieved | Progressing | Not Achieved

Maintain program to protect fish from predators and disease	Roll out replacement and upgrade program for sanctuary infrastructure
Selective Breeding Program (SBP) to support increased survival	Less than seven bathes per year class through improvements in SBP
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). Vaccine to be in place for 18YC
Implement an Area Management Agreement for the South East	Work with industry to develop industry Area Based Management framework
Reduce use of antibiotics (target zero)	Total grams per tonne produced to be reduced year on year
Improve fish health and welfare on marine sites	Trial POMV vaccine in field in FY18 to determine effectiveness in-field and assess welfare aspects of vaccination

SALMON AND SEAFOOD **SUPPLY CHAIN**

Through our production of fresh, frozen, smoked, canned and other value-added products for both the domestic and export markets, we are dedicated to producing consistent, quality salmon and seafood.

We source Seafood with integrity, and our focus on quality and food safety is supported by third party certified quality systems. Our ongoing commitment to continuous improvement is underpinned by the activities of our New Product Development (NPD) team, which provides innovative and practical product ideas from concept through to pilot production from our two state-of-the-art Innovation Centres at the New South Wales based Margate and Lidcombe processing sites.

Since the acquisition of the De Costi Seafoods business, we have progressively established a range of supply chain improvements to position our sales with unique reach and time to market advantages for both salmon and seafood.

APPROVED **SUPPLIER PROGRAM**

Tassal's approved supplier program provides for the initial assessment and ongoing monitoring of suppliers of goods or services that have the potential to impact food safety or quality. Our key supplier groups include fish feed, raw materials, packaging, logistics, warehousing and third-party processing. During the approval process suppliers are required to provide information regarding their ethical sourcing standards (including environment, health and safety, human rights and sustainability); quality and food safety, and product-specific information. Suppliers of Seafood raw materials are also required to provide information regarding the sourcing of their raw materials. Once approved, suppliers are required to complete a questionnaire every three years to capture any changes to the supply chain.

During the initial assessment process suppliers are evaluated by Tassal based upon the information provided, and in some cases a supplier audit will be conducted to assess suitability for supply. Local suppliers with a strong ethical sourcing focus are viewed favourably, with Aquaculture Stewardship Council (ASC) and Marine Stewardship Council (MSC) certifications considered to be the 'gold standard' for Seafood products.

The approved supplier program is largely risk-based, with a supplier risk assessment completed during the initial approval process and reviewed annually. Each supplier is assessed against a number of criteria including geographical origin, third party certifications, performance history, outcome of supplier audits or site visits, and the inherent risks of the raw materials supplied. Following this assessment each supplier is assigned a supplier audit priority for the coming year.

The integration of De Costi Seafoods suppliers into the Tassal supplier program has seen a significant increase in activity and the number of suppliers included in the program. During the reporting period, seven supplier audits (including two new Australian suppliers of Vietnamese prawns) were included within this audit) and four site visits were conducted, with a further 10 suppliers flagged for audit in the second half of 2018.

CHAIN OF CUSTODY **CERTIFICATION**

All (100%) of Tassal's salmon aquaculture operations are ASC Certified.

The Marine Stewardship Council (MSC) and Aquaculture Stewardship Council (ASC) Chain of Custody standard ensures that products from sustainable fisheries and aquaculture operations are traceable. The five key principles of Chain of Custody certification are:

1. Certified supply: companies must purchase certified
2. Identifiable: certified products are clearly identifiable
3. Separation: certified products are separated from non-certified
4. Traceable and recorded: certified products are traceable and volumes are recorded
5. Good management: the organisation has a management system

TOP 10 SEAFOOD SALES PRODUCTS **(BY VOLUME) AND CERTIFICATIONS**

1. Seafood Salad 5kg — MSC, BAP
2. MAP* Seafood Salad 375g — MSC, BAP
3. Pacific Oysters Fresh
4. Cooked Tiger Prawn Farmed 16/20 Frozen Australian
5. Salamanca Basa Fillets — ASC
6. MAP Cooked Peeled Prawns — ASC
7. Cooked Garlic Prawn 280g — ASC
8. Ready to Eat Prawns with Cocktail Sauce 260g — ASC
9. MAP Crumbed Whiting Fillets
10. MAP Black Tiger Prawns 1kg Packs

MSC = Marine Stewardship Council

BAP = Best Aquaculture Practices

ASC = Aquaculture Stewardship Council

* Modified Atmosphere Packaging

Our Product

LOCAL **PROCUREMENT**

All new suppliers (including non-salmon and seafood) are managed through our Purchasing department and are required to complete our Supplier Details Form and provide applicable insurance documentation. Suppliers of goods and services which have a direct impact on quality and food safety must be approved by our Quality Assurance department.

This includes suppliers of raw materials, ingredients, packaging, storage, transport, pest control, cleaning equipment, contract processing and contract packing. Our Approved Supplier Questionnaire includes requirements specific to quality and food safety, as well as ethical sourcing standards incorporating environment, WHS, human rights and sustainability criteria.

Tassal's expectation is that our suppliers abide by relevant local and National laws and regulations and have required licences in place, issued by the appropriate Government body, to conduct their business.

GLOBAL SALMON **INITIATIVE**

Tassal joined the Global Salmon Initiative (GSI) during the reporting year. The Global Salmon Initiative (GSI) is a leadership initiative established by leading farmed salmon CEOs from around the world who share a vision of providing a healthy and sustainable source of protein to feed a growing population, while minimising their environmental footprint, and continuing to improve their social contribution.

Four key focus areas for the GSI that Tassal is contributing to are:

- Achieving the highest level of environmental and social standards through ASC Certification
- Improving biosecurity (disease management)
- Securing sustainable sources of feed ingredients
- Improving industry transparency through sustainability reporting

More information about the Global Salmon Initiative is available at: **globalsalmoninitiative.org/en/**

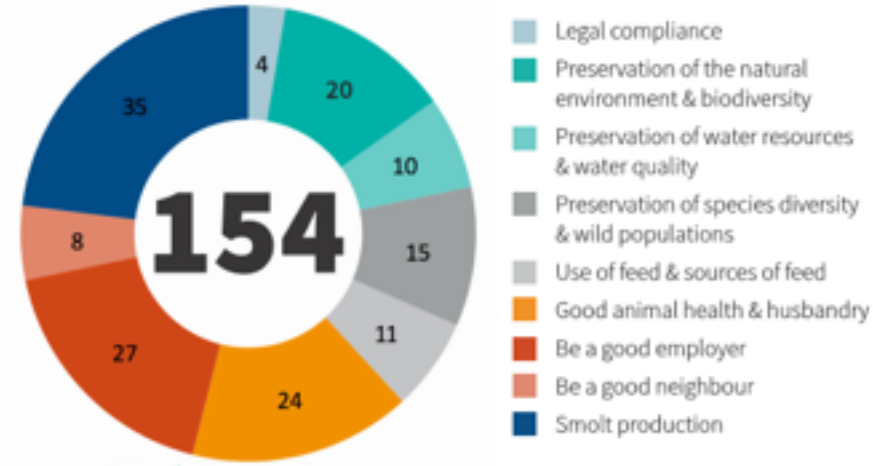
AQUACULTURE STEWARDSHIP **COUNCIL**

The Aquaculture Stewardship Council (ASC) is an independent, not-for-profit organisation founded in 2010 by World Wide Fund for Nature (WWF) and The Sustainable Trade Initiative in accordance with ISEAL principles, to manage global standards and the certification of responsible fish farming around the world. The ASC works to promote best practice aquaculture globally, and aims for a world where everyone has access to responsibly sourced Seafood.

Tassal achieved ASC certification in 2014, and was the first salmon producer globally to achieve ASC across its entire business. During the reporting year, we maintained certification across all operations for harvest fish.

ASC certification is an intensive process, and requires extensive reporting on 154 disclosures that span environmental and social considerations.

More information about the ASC is available at: http://www.asc-aqua.org



EFFICIENCIES OF AQUACULTURE FARMING **COMPARED WITH LAND BASED FARMING**

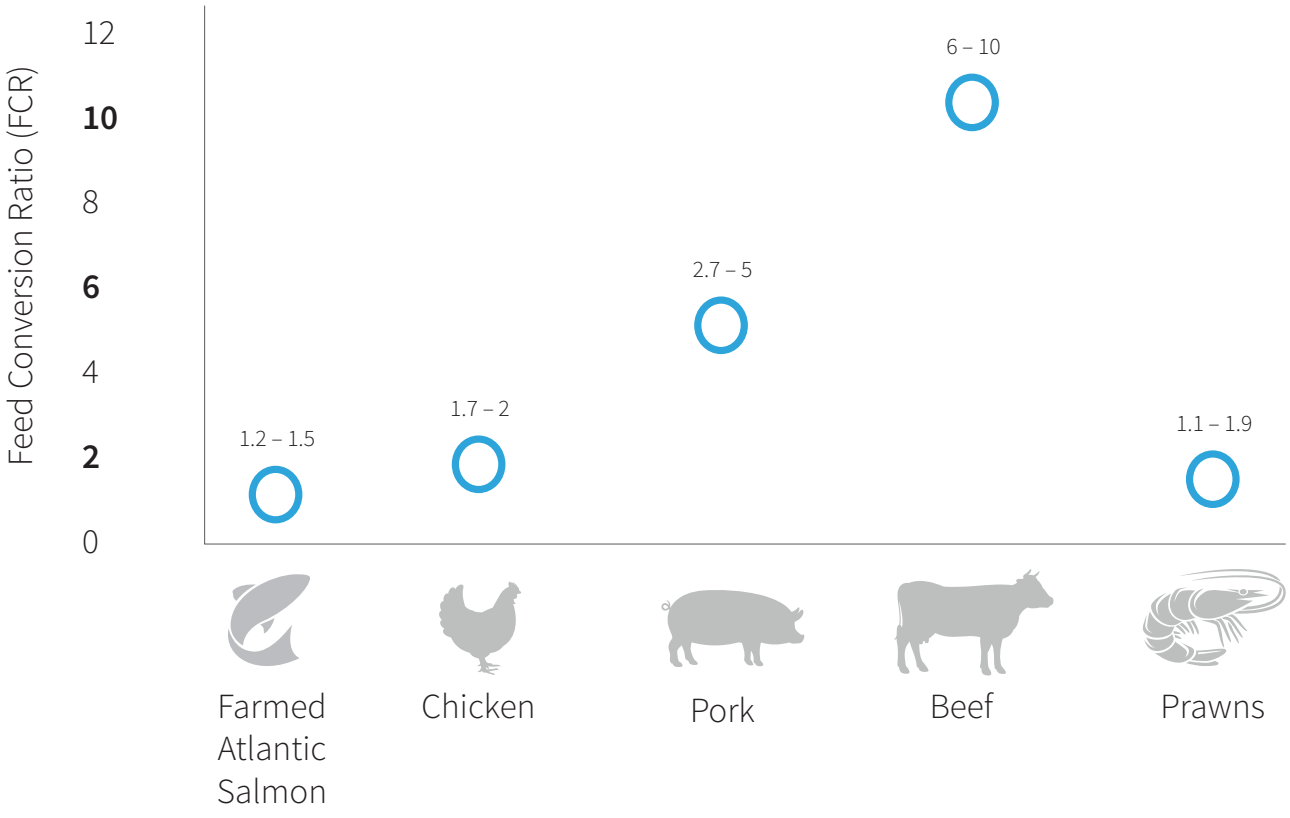
Farming salmon and other Sseafood species in an aquaculture environment is far more efficient than the farming of land animals such as beef, sheep and pork due to a significantly lower feed conversion ratio (FCR). The FCR refers to the volume of feed required to produce 1kg of the animal protein.

The primary reasons for this are the facts that fish expend far less energy due to the lack of gravity due to the buoyant nature of water; their internal body temperature does not need to be regulated as they are ectothermic (cold blooded) creatures and, fish excrete a simpler form of urine in ammonia form than terrestrial animals, which excrete urea, again expending less energy than land-based animals.

Compared with other proteins, salmon farming has a comparatively low environmental footprint and is a more efficient protein source including the following characteristics:

- Lower carbon footprint;
- Lower feed conversion ratios;
- Higher yield (meat to bone ratio);
- Higher protein, energy, and calorie retention from the feed consumed; and
- Lower freshwater demand.

Tasmanian salmon has a minimum 2-4% better yield recovery than salmon from other countries due to the smaller head of our *Salmo Salar* species.



Adapted from The Global Salmon Initiative, 2018 (https://globalSalmoninitiative.org/en/sustainability-report/protein-production-facts/#feed-conversion-ratio) and Riding New Waves of Change in Aquaculture, Rabobank, 2018)

** The Feed Conversion Ratio (FCR) of cattle production has a larger range due to the varying types of feed used.*

Varying feed costs for each of the above industries considered above have an influence upon the feed conversion ratios due to the digestibility of proteins. Each megajoule (energy) increase reduces the FCR by .04, but at the same time increases the feed cost.

THE SALMON **GROWING PROCESS**

On-land Freshwater Nurseries and Hatcheries

1 OVA
Every autumn, eggs collected from our special breed fish are incubated at our hatchery.

2 ALEVIN
Eggs start hatching in July and young fish are nourished by their own yolk sacs.

3 FRY
Fish are moved to tanks in our nurseries and begin feeding.

4 PARR
As fish grow we transfer them to larger on-growing tanks.

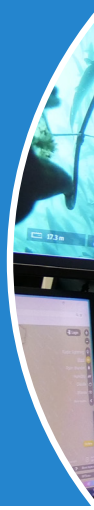
5 SMOLT
At 12-18 months old, salmon have matured into smolt and are ready for their ocean homes. They are about 330g and we aim to increase this size each year.

6 HARVEST
Salmon live in their ocean homes for around 15 months. Once they grow to between four and seven kg, they are harvested.

Life Cycle of Our Salmon

tassal

Salt Water Ocean Farms



SUSTAINABLE **SALMON FEED**

It is important we ensure what we feed our fish is designed to optimise fish health and performance.

Fish feed is one of our primary inputs and we are committed to working with our feed supplier to ensure responsible use of the world's resources. The use of wild caught forage fish for fishmeal and fish oil is a key sustainability issue for the global Salmon farming industry, and inclusion rates have significantly reduced over the past two decades. Forage Fish Dependency Ratio (FFDR) requirements prescribed in the Aquaculture Stewardship Council (ASC) salmon standard aim to support the trend toward lower inclusion rates and increasingly efficient use of marine resources. FFDR calculates the dependency on forage fisheries through an assessment of the quantity of live fish from small pelagic fisheries required to produce the amount of fishmeal or fish oil needed to produce a unit of farmed salmon. ASC indicators also strive to ensure that marine-based feed ingredients come from sustainable sources.

Land and vegetable ingredients in our feeds are all sourced from responsible suppliers with a focus on traceability, sustainability and quality.

Marine Ingredients

Fishmeal and fish oil are used in our feed to provide vital vitamins and minerals. We have been decreasing our dependency on fishmeal year on year to protect marine sources.

Vegetable Ingredients

These are used as an alternative to fish oil and fishmeal and provide equally good performance in terms of fish welfare, taste and quality of our end product. Vegetable ingredients include grain, soya and protein meal.

Land Animal Ingredients

These are sustainable alternatives to fishmeal and fish oil reducing our reliance on marine resources. We only source from Australian producers who rear animals for human consumption. Land ingredients include chicken meal, blood meal and chicken oil.

Astaxanthin

This plays an important role in salmon immune systems and acts as a powerful antioxidant, promoting good health. Astaxanthin is also responsible for producing salmon's pink colouring and is nature identical to wild salmon feed.

World Class Feed Centre

The Centralised Feeding concept was developed in December 2016 and has been Tassal's major technological initiative in the reporting period. The objective is to take traditional barge-based feeding and control it from a centralised location at Tassal's head office in Hobart. The rationale for the strategy is to improve feed control to maximise fish performance, minimise feed waste and improve sustainability. Increased control is possible via the ability for feed technicians to analyse real time data relevant to our stock and environment 24/7.

The first site was fed in February 2018 and 30% of all farms are now under control from our feed centre. The aim is to have all sites online by late 2018. Initial results have exceeded expectation with improved fish growth and feed conversion being observed. The exceptional fish performance results have been supported by benthic health surveys which have demonstrated minimal environmental impact.

Our Product

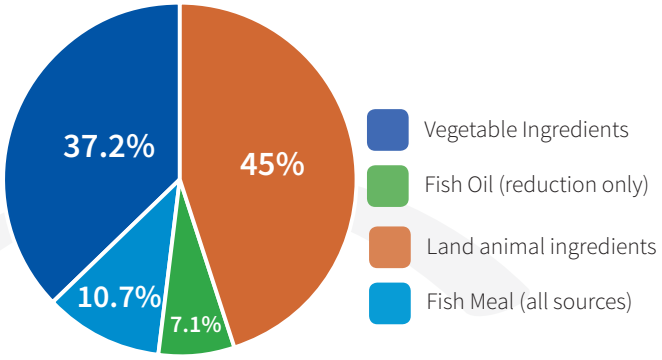
Tassal's Fish-in Fish-out Ratio

	FY14	FY15	FY16	FY17	FY18
Forage fish required (kg)	1.77	1.9	2.0	1.7	1.9
Fish oil used in feed (kg)	0.08	0.09	0.10	0.08	0.09
Fish meal used in feed (kg)	0.13	0.09	0.08	0.09	0.07
Excess fish meal (not used) (kg)	0.27	0.37	0.41	0.31	0.38

The slight increase of fish oil used between FY 17 and FY18 can be attributed to the change from lower energy diets (Optiline Premium) to higher energy diets (Express) between years for Tassal salmon. The higher energy diet relies on slightly more fish oil, hence the larger inclusion level for the FY18.

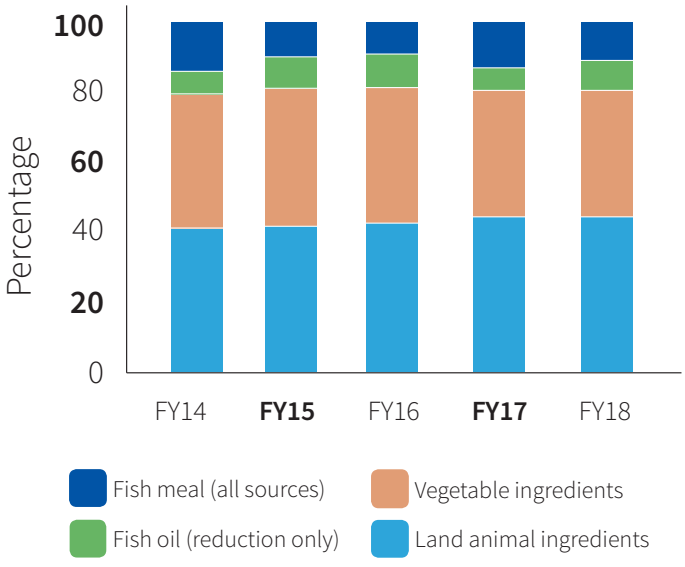
	FY14	FY15	FY16	FY17	FY18	ASC REQUIREMENTS
Forage Fish Dependency Ratio - Fishmeal	**0.46**	**0.35**	**0.32**	**0.37**	**0.28**	**<1.2**
Forage Fish Dependency Ratio - Fish oil	1.77	1.89	2.02	1.67	1.86	<2.52

BREAKDOWN OF INGREDIENTS **IN TASSAL SALMON FEED**



2.2%* decrease
in fish meal used in feed
**Compared to FY17*

RAW MATERIALS **IN TASSAL SALMON FEED**



PROGRESS FOR FY18 **GOALS & TARGETS**

FOOD SAFETY

DELIVERING SAFE, HIGH QUALITY PRODUCTS TO CONSUMERS

Salmon: Achieve full traceability (catch to plate)

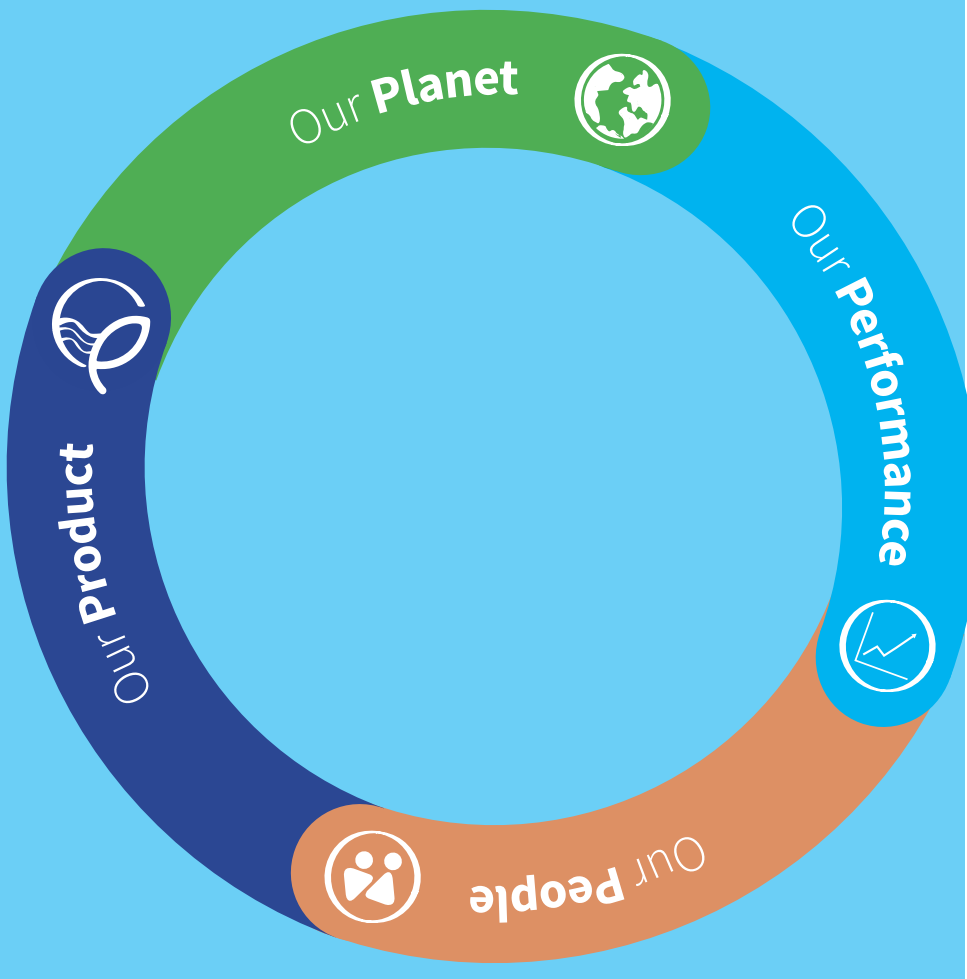
Seafood: Maintain 100% traceability for all salmon products and develop a traceability strategy for Seafood products

Salmon: Maintain all third party domestic and export certifications

Seafood: Pass all external quality audits

2018

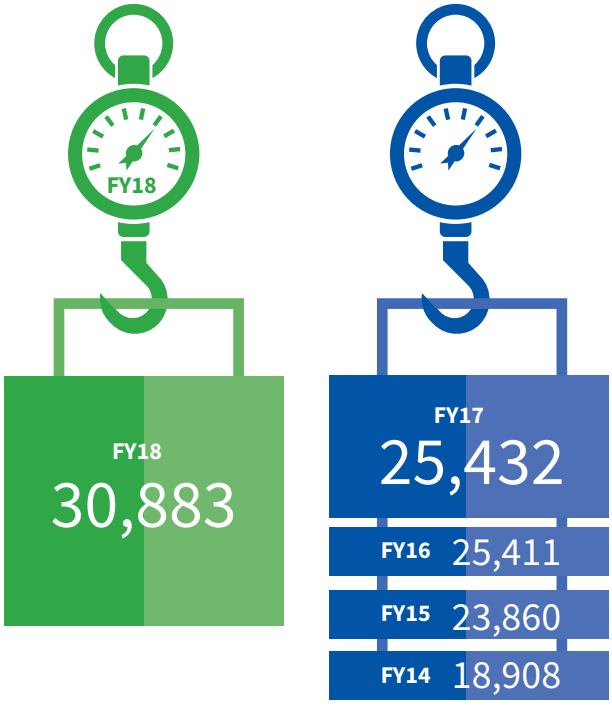
OUR PERFORMANCE

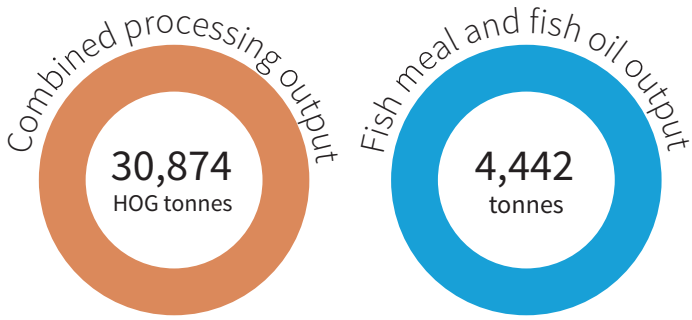


AVERAGE HARVEST WEIGHT FY18 **4.5kg**

FY17	FY16	FY15	FY14
3.9kg	3.7kg	4.2kg	4kg

HARVEST **TONNAGE (HOG TONNES)**





FINANCIAL **PERFORMANCE ($Am)**

Operating Results	2018	2017	Change
Revenue	509.50	450.45	13.1% ↑
Operating EBITDA	99.78	88.97	12.2% ↑
Operating NPAT	50.31	42.19	19.2% ↑
Operating Cashflow	43.88	51.36	(14.6%) ↓
Final Dividend – cps	8.00	7.50	6.7% ↑
Total Dividend – cps	16.00	15.00	6.7% ↑
Gearing Ratio	18.7%	12.4%	
Funding Ratio	28.5%	24.3%	

OPERATING REVENUE **SALMON & SEAFOOD ($Am)**

Operating Revenue	2018	2017	Change
Salmon	420.43	371.86	13.1% ↑
Seafood	78.47	72.86	7.7% ↑
Total Revenue	498.90	444.72	12.2% ↑
Domestic Sales			
Salmon	347.88	330.94	5.1% ↑
Seafood	75.51	69.64	8.4% ↑
Total Revenue	423.39	400.58	5.7% ↑
Export Sale			
Salmon	72.56	40.92	77.3% ↑
Seafood	2.96	3.22	(8.0%) ↓
Total Revenue	75.52	44.14	71.1% ↑

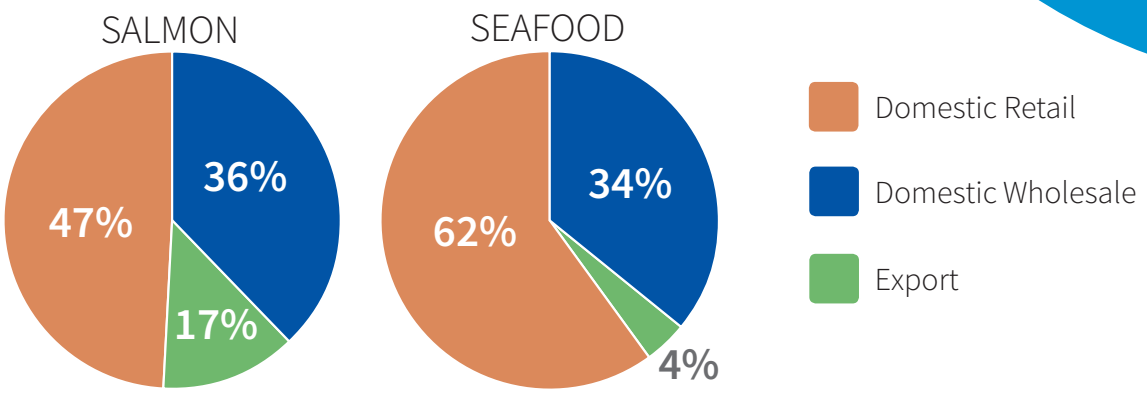
Our Performance

BIOLOGICAL **ASSETS**

$Am

FY14	188.8
FY15	222.9
FY16	246.1
FY17	312.4
FY18	356.5

OUR **MARKETS**



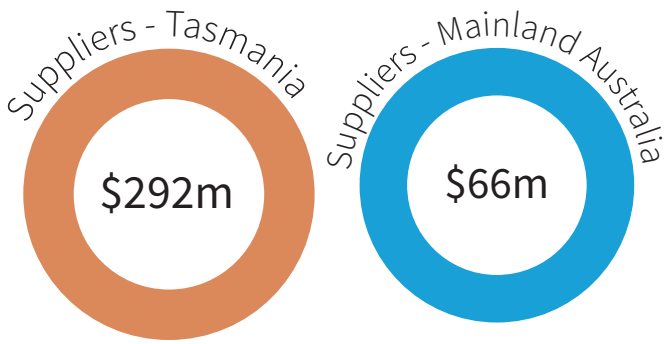
Figures are based on revenue.
We export to China, Indonesia, Japan, Malaysia, Singapore, Taiwan, Thailand, Vietnam, Bangladesh, New Zealand and the United States.

SALMON & S**EAFOOD SALES**

	Volume	Revenue
Unbranded	55%	56%
Branded	45%	44%

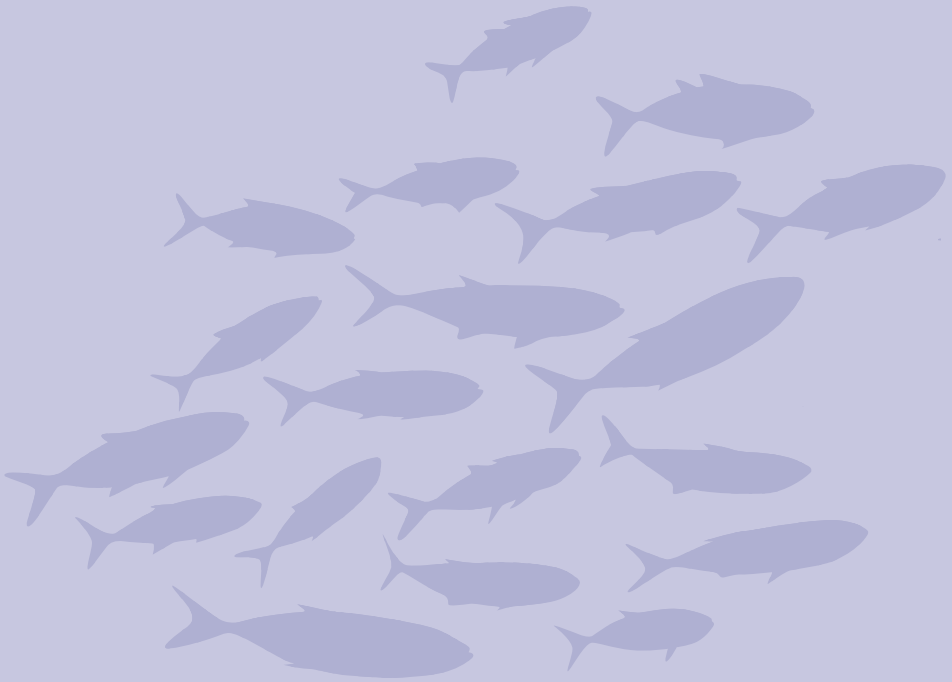
*Tassal and De Costi Consolidated

DIRECT SPEND ON **LOCAL SUPPLIERS**



CORPORATE GOVERNANCE

CORPORATE GOVERNANCE



Governance

Our approach to corporate governance is to achieve best practice across all our operations. Tassal's Board of Directors oversee the company's governance framework, and ensure good corporate governance is embedded across all areas of the business.

The Board, the Executive Team and Management implement our governance framework across all day to day activities, to ensure the framework translates into practices, procedures and responsibilities of all employees. We regularly monitor and evaluate our performance within the governance framework, as this provides us with analysis and useful tools for improved decision making.

Our comprehensive corporate governance framework focuses on transparency, accountability, stewardship and integrity. Our commitment to act ethically, openly and fairly, and with integrity is at the centre of our framework and we continue to engage with stakeholders and the community on many levels to ensure these commitments are met. This is evident by our diverse range of operational, audit and sustainability performance information made publicly available.

Tassal adopts the ASX Corporate Governance Principles and Recommendations and is committed to integrity, governance and responsible business practices.

We invest heavily in research and are committed to building our knowledge of this everchanging industry. Reliance on best practice research and scientific evidence provides accountability, compliance and diligence in our decision making and promotes our culture of good corporate governance.

Risk Management

Tassal recognises that risk is an integral and unavoidable component of the business and appropriate risk management procedures are necessary to achieve our strategic objectives. Tassal adopts a conservative attitude towards risk taking, striving to minimise risks as much as possible while pursuing our Salmon and Seafood strategy to drive earnings growth and maximise shareholder value.

The Board and CEO are responsible for oversight of Tassal's risk management policy and framework. The Chief Risk Officer (CRO) has primary responsibility for the identification and management of material business risks within Tassal and is accountable to the CEO and Board for designing, implementing and monitoring the process of risk management in addition to ensuring its integration into the day to day activities of Tassal.

We have risk management systems to cover all areas of our business, including well-structured framework and policies based on the AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines standard. Our risk management systems ensure that our business is operating efficiently and effectively in all respects of corporate governance.

Modern Slavery

During the reporting period, Modern Slavery legislation was introduced into parliament. Once the legislation is enacted and the Modern Slavery Regulations are published, it will require us to publish annual statements on the steps we take to address modern slavery in our supply chains and operations. Whist we have strong governance policies on supply chain and training practices, this new legislation will ensure that appropriate risk management, monitoring and reporting mechanisms are in place for modern slavery supply chain risk.

Anti-corruption

To mitigate against the risk of corruption and in line with the ASX Corporate Governance Principles, Tassal has several policies in place, including a Code of Conduct, a Whistle Blower Policy, a Fraud Policy and Ethical Behaviour Policy and Procedures.

Our Code of Conduct and Ethical Behaviour Policy and Procedures provide clear guidelines for the ethical and behavioural standards expected of our Directors and all employees. We have zero tolerance for any unethical, corrupt, fraudulent or illegal activities. The policies are provided to every employee and form part of our induction process.

The policies evidence our requirements of ethical standards from all employees regardless of their position. They also cover our obligations to comply with all relevant legislation including those regarding the employment terms and conditions of all our employees and sub-contractors, health and safety requirements and our environmental responsibilities.

All our operations are regularly assessed for risks relating to corruption and unethical behaviour. To assist in minimising this risk, we provide ongoing training to all employees to reiterate our conduct requirements. There were no incidents of anti-corruption during the reporting year.

Our Fraud Policy facilitates the development of controls that aid in the detection and protection against fraud. Our Whistle Blower policy supports and promotes a culture of compliance, honesty and ethical behaviour. The policy is a mechanism by which our employees are encouraged to voice serious concerns or escalate serious matters on a confidential basis, without fear of reprisal, dismissal or discriminatory treatment so that the Board and management can adequately manage risk and any cultural issues.

Our Code of Conduct provides clear guidelines for the ethical and behavioral standards expected of its Directors and employees at every level of the business. It is a comprehensive collection of polices covering all elements of corporate governance. Our corporate governance statements, policies and charters can be found at www.tassal.com.au/governance-policies/.

Legal Matters

Senate Inquiry into the Finfish Industry: In August 2017, we welcomed the outcome from the Australian senate which cleared Tassal of an alleged contempt in relation to the rules of the Senate Inquiry into the finfish industry in 2015.

Okehampton Bay: In April 2018, we welcomed the dismissal of an application brought against us in the Federal Court in relation to the Federal Minister's decision under the Environmental Protection and Biodiversity Conservation (EPBC) Act regarding our expansion of farming into Okehampton Bay in August 2017. The decision has provided certainty for our east coast-based employees and continuing operations at Okehampton Bay.

TASSAL MEMBERSHIPS & BOARD / COMMITTEE REPRESENTATIONS

Tassal is a member of the following organisations:

- Tasmanian Salmon Growers Association
- Tasmanian Seafood Industry Council
- National Aquaculture Council
- Australian Human Resources Institute
- Institute of Engineers Australia
- Governance Institute of Australia
- Association of Corporate Counsel
- Biosecurity Australia – Biosecurity Roundtable
- Australian Water Association
- Global Salmon Initiative
- South East Trade Training Centre Advisory Board
- TSGA Marine Debris Working Group
- Tascoss - South East Region Local Action Group
- Colony 47 - Backswing Program
- Member of Australian Institute of Company Directors

Tassal staff sit on the following Committees and Boards:

- Institute of Marine and Antarctic Studies (IMAS) Research Advisory Committee
- Gill Health Initiative Steering Committee
- Birds Tasmania
- Derwent Estuary Program
- D'Entrecasteaux and Huon Collaboration
- Sense-T
- Australian Diver Accreditation Scheme
- Better Work Tasmania
- Safety Institute of Australia
- Agri Food Advisory Board
- Employer of Choice reaccreditation committee
- Seafood Training Tasmania Board
- Sustainable Agriculture Initiative (SAI) Platform Australia

OUR COMMUNITIES

COMMUNITY ENGAGEMENT

Tassal's strategic pillars are: People, Planet, Product and Performance. Our stakeholders, internal and external span all four pillar and are a material focus area for our business in terms of our right to operate and right to grow.

We have a formal stakeholder engagement process and strategy, which involves multiple communication and working group relationships in order to facilitate effective feedback, actions and outcomes which benefit the business and communities where we operate.

During the reporting period, we improved the resourcing capabilities within the engagement team, in order to have specialist focus on community projects and programs which directly improve social and environmental outcomes.

A Balanced Scorecard approach was implemented across our strategic framework to effectively measure our performance against key objectives, including stakeholder engagement metrics from the Aquaculture Stewardship Council (ASC), community surveys and direct feedback which are accumulated monthly and every quarter rolled into a reporting dashboard and transparently provided to all employees to demonstrate progress against stakeholder management objectives.

Stakeholder engagement around our key strategic activities for FY18 were:

BENTHIC RECOVERY IN MACQUARIE HARBOUR	
Stakeholder groups	Community Advisory Group, Local, State and Federal Governments, Environment Protection Agency (EPA), WWF-Australia, Institute of Marine and Antarctic Science (IMAS), Community Aquaculture Forum, Parks and Wildlife, NRM and the broader community
How we engaged with stakeholders	Quarterly 'Aquaculture Forum' meetings
	Regular updates and briefing notes to State Government
	Updates to Local and Federal Government
	IMAS tour of Macquarie Harbour and community education session centred around the Harbour's complex environment
	Media tour of Macquarie Harbour focused on the complex environment and innovations we are undertaking to support the Harbour's recovery
	Community Information sessions (two)
	Marine debris clean-ups in conjunction with NRM
	Fact sheets regarding Macquarie Harbour and the waste capture system
	Designated Tassal magazine 'Current' focus on Macquarie Harbour mailed to all key stakeholders
	Media engagement on joint venture announcement with Petuna that will improve biosecurity and stocking strategy
Frequency of engagement	Routine engagement depending on the medium, yet ensuring stakeholders were regularly updated in person, via formal Tassal communication channels, media and social media
What we heard	Waste capture system: specific concerns raised by the community around waste water management and disposal mechanisms of the nutrients captured
	Need for improved biosecurity and environmental outcomes
Our response	Tassal listened to the community and whilst had originally conducted studies to release nutrients at the entrance of Hells Gates, recognised stakeholder concerns and worked with TasWater on a trade waste water disposal strategy which aligned with community feedback
	Tassal also proactively engaged with Petuna to develop a joint venture arrangement to salmon farming in Macquarie Harbour
Outcomes	Benthic management of Tassal leases at Macquarie Harbour was successful
	Installation of our innovative waste capture system collected up to 75% of fish waste
	No liquid waste was discharged back into the Harbour
	Joint venture with Petuna to deliver improved biosecurity and environmental outcomes

TRACEABILITY OF TASSAL FARMED SALMON THROUGH ASC CERTIFICATION	
Stakeholder groups	ASC representatives, ENGOs, industry, community, government, tourism, hospitality and environmental sectors, Global Salmon Initiative (GSI)
How we engaged with stakeholders	Tour of Tassal operations and processing facilities; ASC briefings to external stakeholder groups
Frequency of engagement	Tassal provided dedicated tours of its farms to members of the hospitality sector, including leading chefs to inform them of the ASC standards and processes
What we heard	ENGOs concerned the traceability of Tassal salmon throughout the entire supply chain is not transparent
Our response	We reinforce our commitment to retaining our ASC certification which requires us to abide by stringent protocols that ensure transparency and traceability throughout the supply chain
Outcomes	Industry briefings across the hospitality sector were positively received, and the Tasmanian Hospitality Association (THA) formally supports ASC certified salmon

OKEHAMPTON BAY FARM DEVELOPMENT	
Stakeholder groups	Community, employees, CSIRO, IMAS, Glamorgan Spring Bay Council, local business operators, suppliers and contractors, State and Federal Government, Environmental groups, WWF-Australia, NRM, sailing and yacht clubs, other fisheries sectors, recreational fishers, local school, BirdLife Tasmania, Parks & Wildlife, South-East Trade Training Centre, TasWater, MAST
How we engaged with stakeholders	Community Information sessions
	Okehampton Bay fact sheets (distributed to all ratepayers)
	Briefing notes to Local, State and Federal Government
	Direct engagement with local community and business groups
	Engagement with environmental groups
	Career and Education Expo
	Coordinated the production of several videos, housed on social media to inform the public of plans and ambitions
	Engaged with trade training centres to support upskilling and recruitment requirements
	Establishment of designated community email and social media page to facilitate improved dialogue and reach of information
	Media engagement on several occasions to provide plans and present facts of development
	Joint community information session with TasWater to update on Prosser Raw Water Scheme
	Regular meetings with recreational fishers, sailing community and MAST to ensure safe passage of navigation
	Assisting Parks and Wildlife to transport equipment on and off Maria Island
	Supporting Spring Bay Seafoods in marine debris clean-up initiatives
Frequency of engagement	Routine engagement depending on medium, yet ensuring stakeholders were regularly updated in person, via formal Tassal communication channels, media and social media throughout the reporting period
What we heard	Community concern on loss of amenity
	Concerns over unknown environmental impact; loss of beach access to Reids Beach, Okehampton; possible noise, lights and marine debris and interaction with the Southern Right and Humpback whales
Our response	Tassal is using an existing marine farm lease which has been in place for over 25 years. Extensive line of sight analysis has been conducted from multiple visual points, including the world heritage site on Maria Island. The outcomes demonstrated there was no visual impact from these areas. Since the farm has been operational, Tassal has not received any reported complaints on amenity
	Okehampton Bay is leading the way for salmon farming in Tasmania in terms of monitoring undertaken, with the most extensive regulatory monitoring requirements of any site in the State. Tassal also invested significantly in growing kelp species within the lease to facilitate an integrated multi-trophic farming environment to reduce the site's environmental footprint. There have been no reported complaints on environment since the farm's inception. Tassal provides an extensive summary of the environmental monitoring process, including rocky reef and broadscale monitoring, with results also uploaded onto the Tassal website
	Tassal does not own Okehampton farm, nor access to the beach. During the reporting period the farm was sold and Tassal has had correspondence with the new owner who is supportive of the farm's operation
	Tassal conducts regular marine debris clean-ups, and has partnered with pakana Services – an Aboriginal social enterprise – to focus on collecting marine debris. Collecting all debris that belongs to us and broader debris from the commercial/recreational and community sources. Tassal has also participated in the NRM community clean-ups and has established an internal marine debris working group with a key focus on preventing debris at the source. Tassal is also part of an industry marine debris strategy group. Any debris collected by Tassal, or reported by stakeholders, is reported with figures publicly available via our Sustainability Dashboard on our website. A dedicated marine debris hotline has also been established
	In line with Federal EPBC requirements and community concern, Tassal has implemented procedures and processes to mitigate whale interactions which go above and beyond any other marine operation. This includes forward facing sonars, restrictions on operations when there are whales in the area and specialist staff training and reporting mechanisms. There have been no negative interactions with whales
Outcomes	Development of real-time data monitoring platform website: dashboard.tassalgroup.com.au to house environmental, social and operational data based on community feedback
	Broadscale and reef monitoring of Okehampton Bay housed on our website for public access
	Establishment of improved marine debris internal and external working programs
	Leading whale protection processes, technology and procedures
	Positive community perception survey results, with the Orford/Triabunna community returning the highest rated perception answer that Tassal's values aligned with community values

RESEARCH INTO THE VIABILITY OF SALMON FARMING IN KING ISLAND	
Stakeholder groups	Community; King Island Parks & Wildlife, Biosecurity and NRM; King Island Council; Recreational Fisher representatives; local media; chamber of commerce; Naracoopa Progress Group; commercial fishermen
How we engaged with stakeholders	On-site community meetings with Tassal operations, environment and engagement teams
	Public Town Hall meeting; King Island residents (25) invited to tour a Tassal farm, Rookwood Hatchery and Huonville Processing
	King Island Info website launch (www.kingislandinfo.com)
	Interviews on community radio station and regular provision of data findings to the local newspaper and key community members
Frequency of engagement	Quarterly engagement centred around data finding – this has included trips to King Island to provide face to face updates, reports through media and data housed on the public information page
What we heard	Concerns of an excess in salmon production
	Fish waste in the proposed farmed area negatively impacting local water quality
	Proposed fish farm affecting the Martha surf break
	Concerns over more seal and shark activity
	Increased marine debris
	Freshwater access
	Impact on fishing grounds and marine debris
Our response	Tassal needs to meet the increasing market demand for more salmon and keep inferior imported salmon gaining a foothold in our market. IMAS and CSIRO water quality studies have shown that there has been no impact on marine reserves or rocky reef communities due to commercial fish farming over the last 20 years
	Key findings from independent studies have highlighted marine farms have an inconsequential effect on surf breaks
	Tassal's Ocean Sanctuary Pens will discourage seals from attempting to enter the pens; there is no evidence from any of our sites fish farming increases shark activity
	Tassal has well established marine debris collection processes in place
	Tassal will continue to keep the community regularly updated throughout the research program
Outcomes	Tassal currently holds a research permit to conduct environmental monitoring off the east coast of King Island. This only enables us to explore the suitability of the permit area for marine farming. It does not allow us to farm salmon at King Island, such approval can only result from an extensive and rigorous consultation process under Tasmanian law that may take several years. We have currently commissioned aquaculture contractors to place research monitoring equipment, installed in early January. The equipment measures water temperature, wave activity, current speed, salinity and depths and seafloor contours. This research could take months to years and our commitment is to do this carefully and responsibly

WASTE MANAGEMENT AND MARINE DEBRIS	
Stakeholder groups	Local communities, councils, NRM, environmental groups, other water users, MAST, Government divisions
How we engaged with stakeholders	Coordination of and on the ground participation in the NRM Macquarie and Bruny Island Clean-up events. Members of collaborative marine debris working groups
Frequency of engagement	Annual events and communication/updates as required
What we heard	Marine debris is an issue that needs focus and ongoing attention to reduce the prevalence of debris
Our response	Tassal commits to retrieving any marine debris (whether it is ours or not) as soon as possible. We invest in numerous community groups to ensure dedicated marine debris clean-up activities, and are focused on reducing marine debris. We also have an industry dedicated 1300 phone number for reporting of debris. We are also assisting to fund a mobile App, which will record GPS locations of any debris when it is reported. Our contractors and Tassal staff perform weekly shore-line clean ups in the areas we operate - they collect all rubbish and on average 25% of the debris is attributed to us. The source of the remainder is other aquaculture producers, commercial, recreational fishing and domestic rubbish
Outcomes	In FY2018 Tassal cleaned 322 km of shoreline, collected 78.42 m3 of rubbish and performed 1803 hours of shoreline clean-ups. Additional time and collection of rubbish completed in the various clean-up events also

PROPOSED OFF-SHORE FARMING IN STORM BAY	
Stakeholder groups	Community, MAST, TSIC, Rock Lobster Association, TARFish, NRM, Local Government, State Government, Federal Government, schools, Port Arthur Historic site, NRM, ENGOs
How we engaged with stakeholders	Public meetings, public tours with CEO, fact sheets, magazine features in Tassal publication 'Current'
Frequency of engagement	Three public tours (around 100 participants)
	Regular community Information sessions (three in the reporting year)
	Regular face to face meetings with local community stakeholder groups
What we heard	Marine debris
	Environmental impact concerns
	Visual amenity
	Noise and light impact
	Water quality concerns
	Wildlife mitigation concerns
	Concerns around debris and particularly infrastructure withstanding conditions
	Fresh water use
Our response	Tassal has been researching further off-shore, higher energy farming environments for some time. The development approval process is still proceeding with the Tasmanian Government, and during this period, Tassal has undertaken extensive community consultation, including public tour to the proposed site
	Careful research to ensure infrastructure will withstand the conditions, which are set to be the most exposed farmed anywhere in the world, will need to continue once approved to ensure safety to our people, the community, stock and wildlife. Tassal proposed once approvals are in place to transition in a responsible and safe manner, underpinned by an integral research program
	Significant environmental baseline assessments have and are being undertaken for the site, the State Government is also performing marine farm zone assessments. Mapping the broader environment and habitat assessments around the coast line
	Tassal has farmed in the region for many years, with 100% environmental compliance. Tassal proactively implemented broad scale reef and water quality monitoring systems in the region, above and beyond requirements, which are now regulatory for the whole industry
	Tassal has worked with MAST, sailing clubs and commercial fisherman and amended the lease positions to accommodate sailing events, and fishing grounds
	Noise and lighting have been considered with Tassal set to develop a plan to ensure this is minimised once the farm is operational
	Tassal proactively referred the proposed farm to EPBC for assessment and based on its comprehensive whale and wildlife impact mitigation strategy at Okehampton will seek to implement the same safeguarding processes and procedures
Outcomes	The Storm Bay development proposal remains with the State Government for approval

In addition to our engagement on our key strategic activities, we engaged with stakeholder groups that are integral to the success of Tassal's operations and groups to which we can make a positive contribution through our day to day activities.

These include:

Stakeholder Group	How We Engage
Employees	Weekly SnapChat newsletter; Sustainability Dashboard updates; Quarterly CEO Update and Annual CEO Roadshow; Quarterly Current magazine
Local Communities (including local councils)	Fact sheets; Current magazine; Social media (Tassal – Our Community Facebook, Instagram and Twitter); Bi-annual Community Information Sessions; Quarterly Community Advisory Groups
Commercial and recreational waterway users (MAST; Seafood Industry; TARFISH)	Face to face meetings as required
Regulators (state and federal government)	Three meeting sessions were held with the Federal Government this year; State Government and regulators are met with regularly.
Industry associations (TGSA; TSIC; TARFISH; Tasmanian Rock Lobster Fisherman's Association; Seafood Industry Australia; Tasmanian Hospitality Association (THA))	As required – topic specific requirements
Local schools and Trade training centres	As required
Tourism providers	As required, members of Community Advisory Groups are met with quarterly
Indigenous communities (Aboriginal Land Council; Pakana)	As required; Pakana weekly

TASSAL COMMUNITY FOUNDATION & **DEDICATED COMMUNITY ADVISORY GROUPS**

In 2017 Tassal launched its Community Foundation model and Charter, which underpinned an approach to improved engagement with communities where we operate.

As part of this process, Tassal sought to establish dedicated Community Advisory Groups in each region, to represent the community's interests aligned to Tassal's Foundation pillars (environment, education, health & wellbeing and social inclusion). The Advisory Groups are now established, with additional resources being built into Tassal's Engagement Team to assist facilitate meaningful outcomes with the CAGs.

The CAGs meet quarterly and are provide comprehensive updates on Tassal's operations, provide feedback to the company and assist set key projects for Tassal to deliver on based on community needs and concerns. They include environmental, social, operational or education programs of work.

Tassal has also modified its sponsorship program to align to the community's best interests. Tassal's sponsorship program is now run as a community grants program called 'Better Together'. Organisations and individuals are invited to apply and the CAGs assist in assessing the applications to ensure sponsorships and donations meet the community's needs and requirements.

COMMUNITY FOUNDATION **CORE PILLARS**

Health & **Wellbeing**
We support initiatives which foster and enhance the resilience, engagement, health and safety of our neighbouring communities.

Environmental **Stewardship**
We take our role as a steward of the environment very seriously and support initiatives which achieve the same.

Youth & **Education**
We take a long-term view of our commitments by supporting the learnings, aspirations and potential of youth as an investment in the future.

Social **Inclusion**
We support our indigenous community and its heritage as part of capacity development, acknowledgement and prosperity building within the regions where we operate.

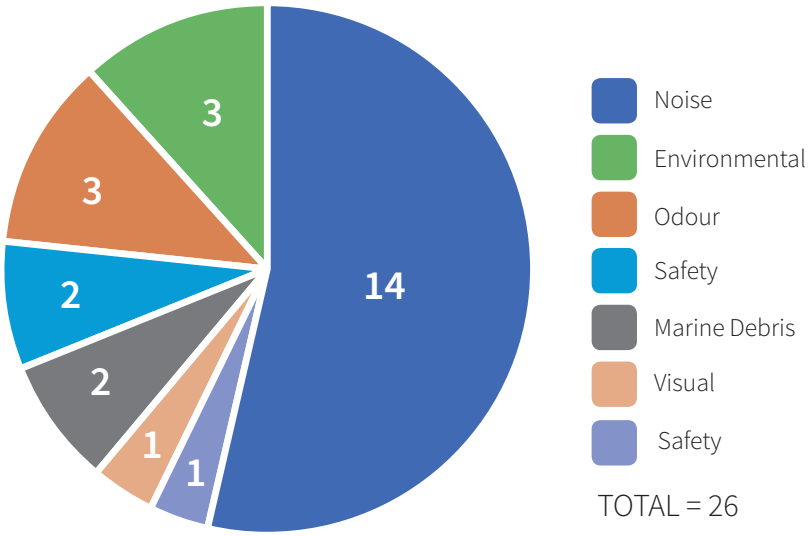
COMMUNITY **FEEDBACK**

Tassal endeavours to maintain the support and trust of the communities surrounding its operations. We see community feedback as an engagement improvement tool which is essential to the success of our business. We encourage our stakeholders and local community members to directly engage with us regarding any concerns they may have and in 2017 established new communication mediums to enable greater access to Tassal's Engagement Team.

We have an internal Community Complaints Policy and Procedure, which provides a formal mechanism to accept, assess and resolve complaints concerning the performance or behaviour of our business and always aim to respond in a timely, fair and consistent manner.

During the reporting year, we received 26 complaints from across all our operations. Each complaint was responded to promptly and either mitigated through works or change in operational practices.

Complaints



PROGRESS FOR FY18 **GOALS & TARGETS**

COMMUNITY VALUE

HIGHLY ENGAGED COMMUNITIES

Achieved | Progressing | Not Achieved

Implement Community Foundation Charter	Undertake EMRS Community Perception Survey
Deliver mutually beneficial programs (health, social inclusion, environment and education)	100% alignment against Community Foundation Charter
Establish Community Advisory Groups in operational areas	Implement quarterly community forums
Increase localised communications	Distribute quarterly community newsletter and coordinate biannual regional information sessions
Develop and implement PIEFA based salmon in Schools program	Support successful development of Australian curriculum aligned program

2019

Our target is to meet consumer demand for salmon – a healthy, efficiently produced, protein – which is increasing in Australia by ~10% annually. We aim to increase our salmon production to meet this demand, from 32,000 HOG tonnes in 2018, to our 2030 target of 70,000 HOG tonnes.

This is in line with the National Aquaculture Strategy and Tasmanian Government Sustainable Salmon Growth Plan and will be achieved through a combination of optimising existing leases, retiring inshore leases, reconfiguring leases, and adding new, higher energy, lease capacity in both existing zones and new zones.

A Reticulating Aquaculture System (RAS) for larger smolt up to 1kg is also considered a necessary step. Growth will equally be applied to our investment in key environmental programs as we continue to target a reduction in our environmental footprint across our operating areas.

We continue to execute on our strategy to be a world leading seafood company by leveraging leading scientific know how; sustainable and efficient production; respect for the earth's resources and the communities in which we operate; and prudent commercial management.

The implementation and adoption of an effective Biosecurity Plan is fundamental to ensuring both sustainable and responsible growth – together with our ongoing commitment and investments in environmental, social, operational and technological advancements, which are in place to assist us in remaining at the forefront of our industry.

2019 GOALS & **TARGETS**

ENVIRONMENT – PROTECTING THE ENVIRONMENT THROUGH SUSTAINABLE MANAGEMENT PRACTICES

Maintain independently certified compliance for marine farms to world leading standard	Continue to pursue 100% ASC for harvest fish across all Tassal's leases. Liaise with ASC to guide in the development of Environmental Standards for salmonid aquaculture that are more relevant to Tasmanian marine and estuarine conditions
Operate at all times within regulatory requirements (local, state and national guidelines)	Achieve no compliance breach that impedes licence conditions, community trust or operational efficiency. Develop a management system that monitors and measures compliance against environmental licence conditions and reporting requirements
Improved Freshwater/Hatchery Environmental Performance	Improve environmental management and wastewater treatment systems and monitor for improved environmental effects
Provide inter-Departmental advice on best practice environmental systems and processes (including project approvals for Marine Operations, Processing and Land-Based systems)	Develop team-based and project management capabilities that assist in the delivery of strategic projects and company growth targets
Extend recycling programs across all sectors of the business – Marine and Freshwater operations, Processing and Corporate	Program to be rolled out throughout 2019 Development of improved culture on waste, marine debris prevention and recycling
Obtain ISO-14001 certification across processing sites.	Develop Environmental Management System (EMS) aligning with ISO-14001

CLIMATE CHANGE

Develop a corporate standard to ensure future measurement and management of climate change and its impacts	Develop climate-related disclosure of information based on TCFD framework (i.e. Governance, Risk Management, Strategy and Metrics and Targets)

PEOPLE – HIGHLY ENGAGED AND PRODUCTIVE WORKFORCE

Assess current reality of where employee engagement score sits	Conduct baseline employee engagement survey
Strengthen learning and development across Tassal	Develop learning and development strategy
Align all positions descriptions through 'Project Re-Align'	Roll out success focused position description alignment project

PEOPLE SAFETY – NO HARM TO OUR PEOPLE

Achieve Zero Harm for Everyone, Everywhere Zero Serious or significant incidents Zero legislative breaches (compliance, right to operate across all of business)	95% overall score for WHS Compliance Scorecard Driving Safety Culture Scorecard target >95% overall score >70% controls to be level 1 or 2 0% overdue safety actions Lagging indicator targets: - TRIFR <10 - Fatalities 0 - LTIFR 0 - MTIFR <10 - Incident Rate 0 - Average Time Lost 0

FOOD SAFETY – DELIVERING SAFE, HIGH QUALITY PRODUCTS TO CONSUMERS

Full traceability (catch to plate)	Maintain 100% traceability for all salmon products and dvelop a traceability strategy for key seafood products
Maintain all third party domestic and export certifications	Pass all external quality audits
Implement seafood food safety strategy	Develop strategy for key seafood products

FISH SAFETY – NO HARM TO OUR FISH

Implement POMV vaccine across production population	Assess vaccine for performance in standardised challenge trial Introduce POMV vaccination program for 2019-year class entry fish
Maintain zero antibiotic use	Maintain zero antibiotic use unless an extreme fish welfare risk is presented
Improve AGD management which will result in increased fish performance	Implement bathe strategy to target bathing of production units at different gill indexes during different seasons i.e. summer is a lower gill index target
Constantly refine health strategy across all farms using best company and industry information	Participate in POMV epidemiology Develop advanced fish health information system to facilitate routine identification of risk factors for a range of conditions
Implement fit for purpose health surveillance strategy designed for early detection and rapid response, and monitoring of enzootic conditions	Embed and implement new industry biosecurity strategy
Selective breeding program to support increased survival	Achieve a conservative target of less than 7.5 bathes per year class, providing greater capacity to respond to difficult climatic conditions and focus on fish health

COMMUNITY VALUE – HIGHLY ENGAGED COMMUNITIES

Develop a Community Engagement Strategy for Marine Debris	Establish an industry working group in Macquarie Harbour with monthly clean ups and quarterly community reporting Establish Glamorgan Spring Bay Marine Debris working group with partners: Parks & Wildlife; oyster/abalone association; tourism operators and school for Great Eastern Clean Up (monthly and major Community Event) Establish TSGA marine debris working group (Tassal to encourage TSGA to adopt initiative) as part of an all of Industry approach Design an interactive map to highlight person hours, debris collected, allocation of debris and Tassal as a 'net collector' Deliver a community-based program working in partnership with environmental groups to improve awareness and actions associated with marine debris, both with salmon farming and other sources
Expand Better Together Community Grants Program	Increase support for programs in operating regions which directly align to our core Community Foundation pillars (education, environment, social inclusion and health & wellbeing)
Build on key corporate partnerships in terms of value-based outcomes	Hurricanes: Increase participation by 20% in regional Tasmanian areas through access to health & wellbeing as well as mental health programs through our corporate partnership Progress to food-bowl and Tasmanian producer connections in an authentic way which also delivers engagement benefits for communities and our staff
Mature Regional Connection Strategy	Increase year on year readership in regional areas of Tassal communications 'Current' magazine and Tassal-Our Community social media by 30% Measure effectiveness, reach and perception of this through 2019 EMRS survey results
Deliver community programs with major partner Hobart Hurricanes which measurably benefit youth in regional communities	Expand Breakfast Club program to include other health and wellbeing awareness and information: physical, nutritional and emotional health and wellbeing

REPORT FRAMEWORK

ABOUT THIS REPORT

This report is Tassal's eighth annual sustainability report. The report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option, utilising the 2016 GRI Standards. Our strategy, historical performance, and goals and targets on material topics are outlined for the FY2018 reporting period (1st July, 2017 to 30th June, 2018). Restatements and recalculations of data are stated in the report's Life Cycle Assessment component within the Environment section of this report. The report boundary has changed for environmental reporting only through the extended Life Cycle Assessment which now includes Tassal's administration and retail outlets, and De Costi Seafoods.

GRI REPORTING PRINCIPLES
FOR DEFINING REPORT CONTENT

STAKEHOLDER INCLUSIVENESS: The report's content reflects topics raised by key stakeholders throughout the reporting year, and the materiality assessment conducted with internal stakeholders.

SUSTAINABILITY CONTEXT: We have presented sustainability information through the strategic lens of aquaculture and fisheries in the global, national and local contexts, including throughout our supply chain.

MATERIALITY: We undertook an in-depth materiality assessment using ZOOiD & Awake's Materiality Assessment Tool (MAT), which identified our top 20 topics.

COMPLETENESS: All information relates to material topics identified, which pertain to Tassal's operational activities in addition to the supply chain.

Data pertaining to the environment; human resources; quality; safety (including contractors) and financial related encompasses all activities for the Tassal Group and De Costi Seafoods inclusive. Animal welfare data excludes De Costi Seafoods.

Specific external assurance for this report was not undertaken, however all financial, salmon freshwater and marine operations, safety and food quality data are independently audited on an annual basis.

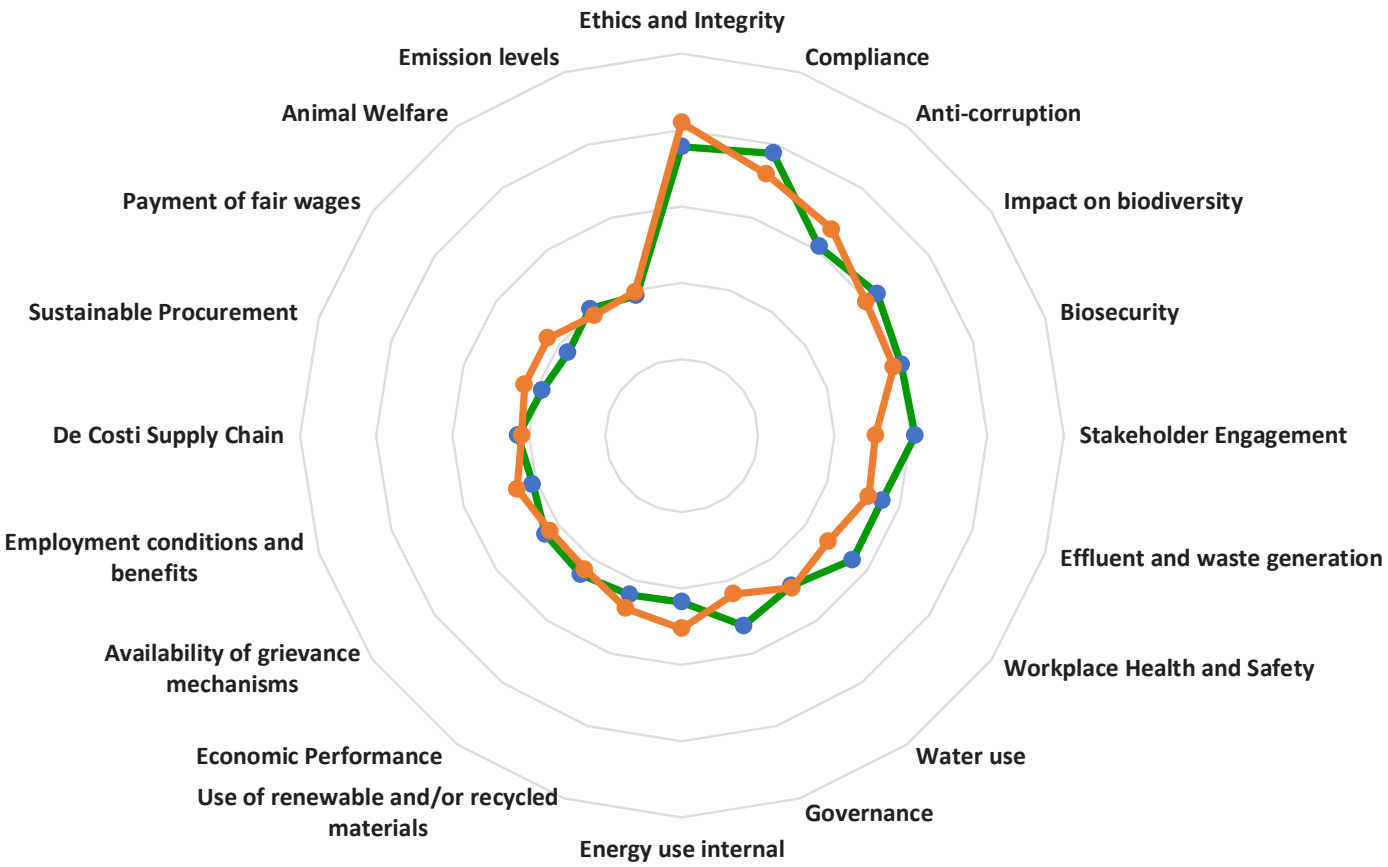
REPORTING **ON MATERIAL TOPICS**

Tassal Group's top 20 material topics have been identified through the online Materiality Assessment Tool (MAT). The MAT was customised specifically for Tassal, and questions were divided into the following six categories: (i) Responsible Business Practices, (ii) Environmental, (iii) Economic, (iv) Social, (v) Customer Care and (vi) Human Rights.

The MAT was completed by 81 staff across Tassal, out of a possible 139 respondents, representing a 58.3% completion rate. Respondents were from the following staff categories and departments: executive; senior management group; sustainability report team; people and culture team; quality assurance and new product development; safety; environment; engagement; engineering and risk; purchasing; logistics and planning; IT; sales and marketing; marine operations; processing, and finance.

This report provides a background and progress on all material topics, however, while the MAT results did not specifically include climate change as a material topic, we have chosen to also report on the topic due to its critical importance in current and future sustainable aquaculture impacts and implications for future planning.

Material topics identified have marked a small shift away from social topics in FY2017 to environmental and supply chain topics in FY2018.



Source: Tassal MAT Results FY18 (ZOOiD and Awake)

GLOSSARY

GLOSSARY

Adaptation
The process of change by which an organism or species becomes better suited to its environment.

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

Amoebic Gill Disease (AGD)
Caused by *Neoparamoeba perurans*, the most important amoeba in cultured fish.

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 Stewardship Council (ASC)
A third party audited world recognised environmental standard evolving from the Salmon Aquaculture Dialogues.

Arable
Land suitable for growing crops.

AS/NZS ISO 31000:2009
Australian and New Zealand Risk Management Standard.

ASX Corporate Governance Principles and Recommendations
The benchmark for good corporate governance in Australia.

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 EPA Tasmania.

Biomass
A measure of weight.

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

Carbon neutral
Making or resulting in no net release of carbon dioxide into the atmosphere, especially as a result of carbon offsetting.

Climate Change
Changes in the earth's weather, including changes in temperature, wind patterns and rainfall, especially the increase in the temperature of the earth's atmosphere that is caused by the increase of particular gases, especially carbon dioxide.

CO_2eq
Carbon dioxide equivalent is a measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

Eco-aquaculture
The growth of shared species in shared spaces – including salmon, mussels, native oysters and seaweed.

Ecosystem
A biological community of interacting organisms and their physical environment.

Enzootic
Enzootic has the same meaning as endemic, i.e. it is established in the population in an area, but not at epidemic levels. Endemic and epidemic refer to the human population, whereas enzootic refers to an animal population.

Epidemiology
The branch of medicine which deals with the incidence, distribution, and possible control of diseases and other factors relating to health.

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

Feed Conversion Ratio (FCR)
A ratio or rate measuring the efficiency with which the bodies of livestock convert animal feed into the desired output.

Forage Fish 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 Ratio (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).

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

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.

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

Freshwater operation
Aquaculture that occurs in a freshwater system.

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

Greenhouse Gas (GHG)
A gas in an atmosphere that absorbs
and emits radiation within the thermal infrared range.

Hatchery
A facility where fish eggs are hatched under artificial conditions.

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.

ISO 14001:2015
An environmental management system.

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.

Joint Venture (JV)
A business entity created by two or more parties, generally characterized by shared ownership, shared returns and risks, and shared governance.

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

Life Cycle Assessment (LCA)
A technique used to assess environmental impacts associated with all the stages of a products life.

LTIFR
Lost Time Injury Frequency Rate.

Modified Atmosphere Packaging (MAP)
Food packaging method in which the proportions of carbon dioxide, nitrogen, and oxygen in a sealed container are different from those in the normal (ambient) air to enhance the food's shelf life.

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

Marine Stewardship Council (MSC)
An international non-profit organisation established to address the problem of unsustainable fishing and safeguarding seafood suppliers for the future.

ML
Megalitre. 1 ML = one million litres.

MTIFR
Medically Treated Injury Frequency Rate.

Multi-trophic farming
The growth of shared species in shared spaces – including salmon, mussels, native oysters and seaweed.

Nitrogen
A fundamental chemical element with the symbol N.

Nitrogen Cap
Nutrient output from salmon farming operations in the D'Entrecasteaux Channel and Huon Estuary are managed by the regulation of the Total Permissible Dissolved Nitrogen Output (TPDNO), or nitrogen cap from marine farming operations.

Nursery
A land-based facility where fish eggs are hatched under artificial conditions.

OHS AS 18001: 2007
An Occupational Health and Safety Standard.

Omega-3
Any of several polyunsaturated fatty acids found in leafy green vegetables, vegetable oils, and cold-water fish such as salmon and mackerel. These acids are capable of reducing serum cholesterol levels and have anticoagulant properties.

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

Pelagic
Ecological region that includes the entire ocean water column.

Physiology
The branch of biology that deals with the normal functions of living organisms and their parts.

Phytoplankton
Very small plants that float near the surface of water and on which sea creatures feed.

Pilchard orthomyxovirus
An endemic disease of pilchards belonging to the family orthomyxoviridae.

POMV
(see Pilchard orthomyxovirus).

Processing facility
A facility where raw materials are processed into finished products.

Recirculating Aquaculture System (RAS)
A fish growing environment which biologically filters system water for re-use, removes ammonia, CO_2 & solids and oxygenates the water.

Reverse Osmosis (RO)
A water purification technology that uses a semipermeable membrane to remove ions, molecules and larger particles from drinking water. A process that makes desalination (or removing salt from seawater) possible.

ROV Dive
Inspection dives that are performed by Remote Operated Vehicles.

Salmonid
Any fish of the family Salmonidiae, which includes salmon.

Salmo salar
The scientific name for Atlantic Salmon.

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 not covered in scope 2, outsourced activities, waste disposal etc.

Sea based nursery
A marine farming lease where fish are grown to 1.5kg.

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

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

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

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

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.

Trimmings (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.

United Nations Sustainable Development Goals (UNSDG)
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.

Vertically integrated
The structure employed by a company when it controls more than one stage of the supply chain e.g. turning raw material into a product.

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.

Yersiniosis
An infectious disease that is caused by a Yersinia.

REFERENCES

Commonwealth of Australia (2017). National Aquaculture Strategy. [online] Canberra: Commonwealth of Australia. Available at: http://www.agriculture.gov.au/SiteCollectionDocuments/fisheries/aquaculture/national-aquaculture-strategy.pdf [Accessed 18 Sep. 2018].

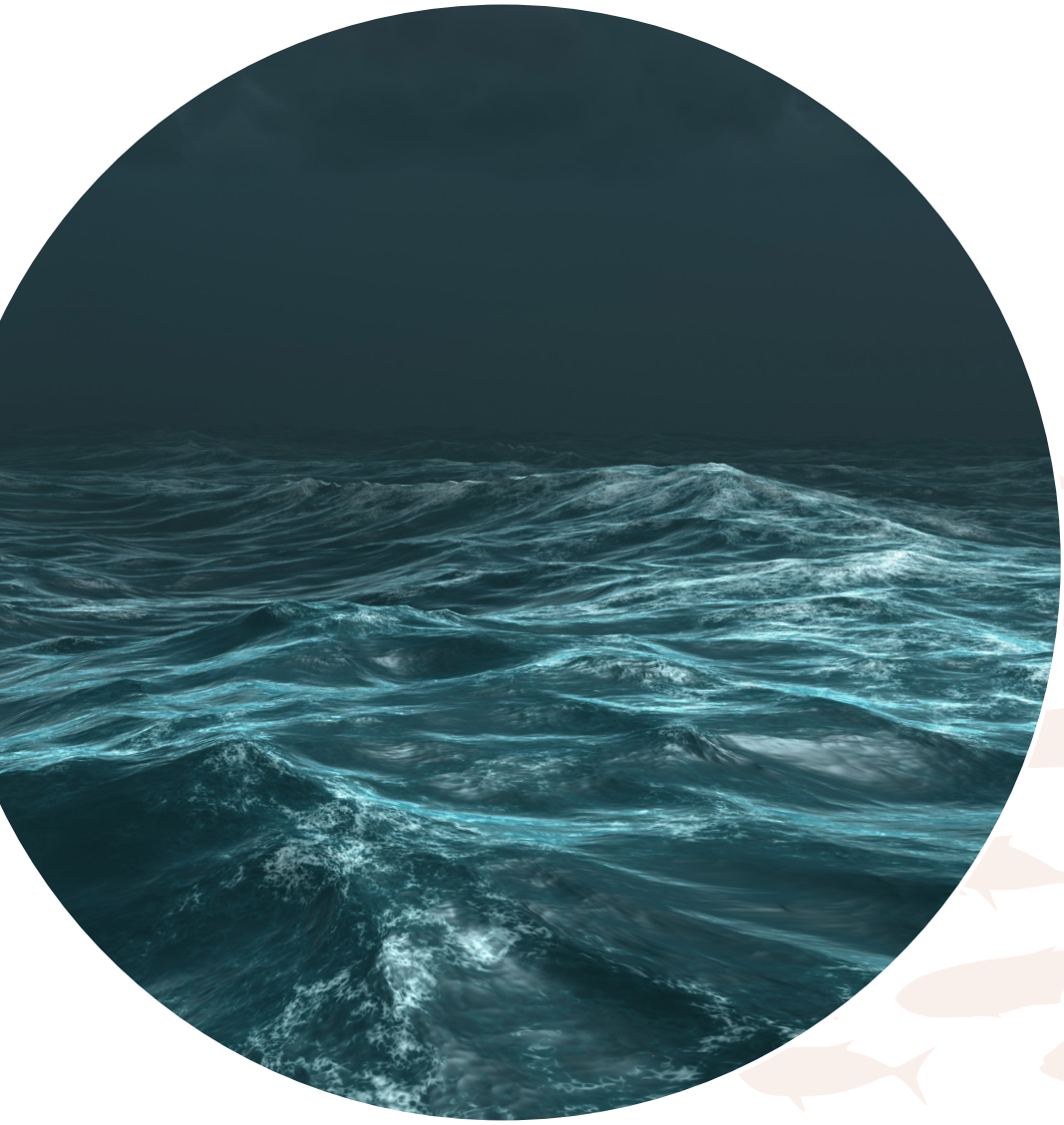
Crawford, C., Harwin, S. University of Tasmania, 2018, Reassessment of intertidal macroalgal communities near to and distant from salmon farms and an evaluation of using drones to survey macroalgal distribution, FRDC Project 2014-241, Hobart, Australia, February 2018

Department of Primary Industries, Parks, Water and Environment (2017). Sustainable industry growth plan for the salmon industry. Hobart: Tasmanian Government.

Dpipwe.tas.gov.au. (2018). Tasmanian Salmon Industry. [online] Available at: https://dpipwe.tas.gov.au/sea-fishing-aquaculture/marine-farming-aquaculture/changes-to-Salmon-industry-regulation [Accessed 18 Sep. 2018].

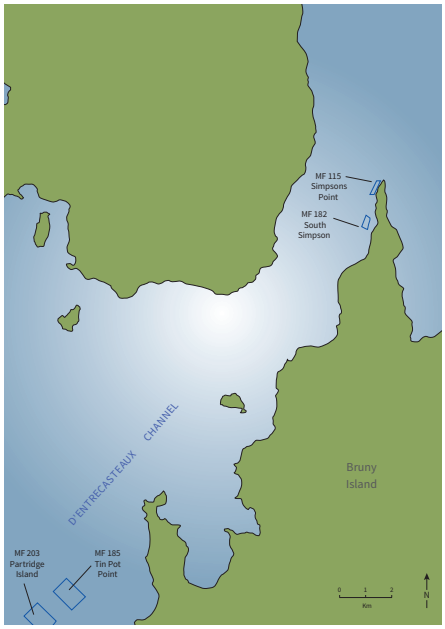
Food and Agriculture Organization of the United Nations (FAO) (2018). The State of World Fisheries and Aquaculture - Meeting the sustainable development goals. [online] Rome: FAO, pp.vi, vii, 2, 4, 7, 113148, 166, 185, 190. Available at: http://www.fao.org/3/i9540en/I9540EN.pdf [Accessed 18 Sep. 2018].

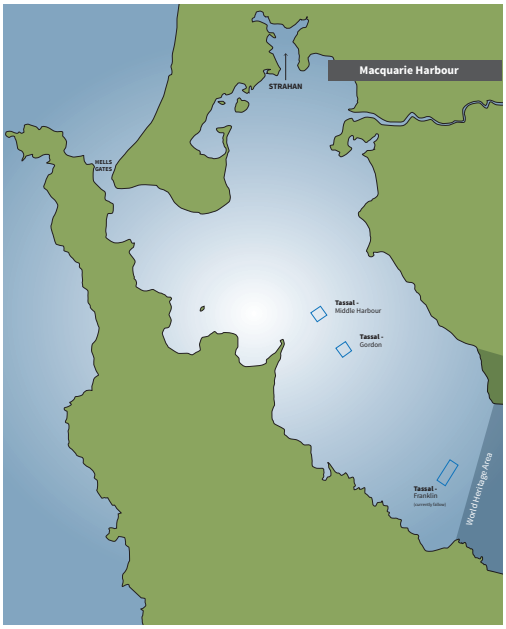
Rabobank (2018). Riding New Waves of Change in Aquaculture. [online] Rabobank. Available at: https://research.rabobank.com/far/en/sectors/animal-protein/riding-new-waves-of-change-in-aquaculture.html [Accessed 18 Sep. 2018].



APPENDIX **ONE**

Minimum distance between lease and High Value Conservation Area (km)									
Lease	Lease size (ha)	Marine Reserves			Marine Conservation Areas				
		Tinderbox	Ninepin Point	Maria Island	Central Channel	Simpsons Point	Roberts Point	Huon Estuary	Port Cygnet
Channel Zone									
Tinderbox	18.99	0.85	> 20	> 20	19.3	19.6	8.7	> 20	> 20
Sheppards	20	3.1	3.1	> 20	15.7	15.5	5.1	> 20	> 20
Roberts Point	30	8	> 20	> 20	> 20	> 20	0.1	> 20	> 20
Soldiers Point	15	13.8	12.12	> 20	5.5	5.5	3.1	> 20	> 20
Southern Zone									
Redcliffs	51	> 20	6.1	> 20	5.9	15.7	> 20	> 20	> 20
Meads Creek	40	> 20	11.8	> 20	10.8	> 20	> 20	> 20	> 20
Stringers	40	> 20	10.5	> 20	9.3	19.9	> 20	> 20	> 20
Killala	12	> 20	14.4	> 20	15.1	> 20	> 20	8.9	10.5
GTB1 & GTB 2	150	> 20	10.1	> 20	7.9	16.5	> 20	> 20	> 20
Butlers	28.5	> 20	14.0	> 20	> 20	> 20	> 20	> 20	> 20
Lippies	76.51	> 20	10.5	> 20	> 20	> 20	> 20	> 20	> 20
Eastern Zone									
Creeses Mistake	48.5	> 20	> 20	> 20	> 20	> 20	> 20	> 20	> 20
Badger Cove	30	> 20	> 20	> 20	> 20	> 20	> 20	> 20	> 20
Port Arthur	15	> 20	> 20	> 20	> 20	> 20	> 20	> 20	> 20
Okehampton									
Okehampton Bay	100	> 20	> 20	7	> 20	> 20	> 20	> 20	> 20
Western Zone									
Gordon	80	> 20	> 20	> 20	> 20	> 20	> 20	> 20	> 20
Middle Harbour	80	> 20	> 20	> 20	> 20	> 20	> 20	> 20	> 20
Franklin	120	> 20	> 20	> 20	> 20	> 20	> 20	> 20	> 20
TOTAL	**955.5 ha**								





GRI CONTENT **INDEX**

GRI Standard	Disclosure	Internal/External Boundary Identification (I/E)	Page/Reference or more information
GRI 101: Foundation 2016			
GRI 102: General Disclosures	ORGANISATIONAL PROFILE		
	102-1: Name of the organisation	N/A	Front page
	102-2: Activities, brands, products and services	N/A	p.2
	102-3: Location of headquarters	N/A	p.2
	102-4: Location of operations	N/A	p.2
	102-5: Ownership and legal form	N/A	p.2
	102-6: Markets served	N/A	p.55
	102-7: Scale of the organisation	N/A	pp.39, 54, 55 Volume of Seafood is not disclosed as it is commercial in confidence.
	102-8: Information on employees and other workers	N/A	pp.38, 39 People data is compiled by analysing, interpreting and sorting data across Tassal's HR and Payroll systems. Five casual and 58 seasonal employees specifically employed to work during the season from April 2017 until February 2018 only were provided with notice of termination at the end of the season. An additional variation in numbers occurred as a result of the annual Dover processing shut down, between February and April 2018. 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.
	102-9: Supply Chain	N/A	pp.46-48, 51, 52
	102-10: Significant changes to the organisation and its supply chain	N/A	p.6
	102-11: Precautionary Principle or approach	N/A	We adopt an adaptive management framework, which encompasses monitoring requirements and management practices aligned with the precautionary approach.
	102-12: External initiatives	N/A	pp.5, 10, 14, 16, 22, 28, 46-48
	102-13: Membership of associations	N/A	p.58
	STRATEGY		
	102-14: Statement from senior decision-maker	N/A	pp.4-7
	ETHICS AND INTEGRITY		
	102-16: Values, principles, standards and norms of behaviour	N/A	pp.32, 57
	GOVERNANCE		
	102-18: Governance structure	N/A	p.37 http://tassalgroup.com.au/wp-content/uploads/sites/2/2018/02/Corporate-Governance-Statement-270717-clean-002.pdf
	STAKEHOLDER ENGAGEMENT		
	102-40: List of stakeholder groups	N/A	pp.60-63
	102-41: Collective bargaining agreements		p.39
	102-42: Identifying and selecting stakeholders		pp.59-63
	102-43: Approach to stakeholder engagement		pp.59-63
	102-44: Key topics and concerns raised		pp.59-63

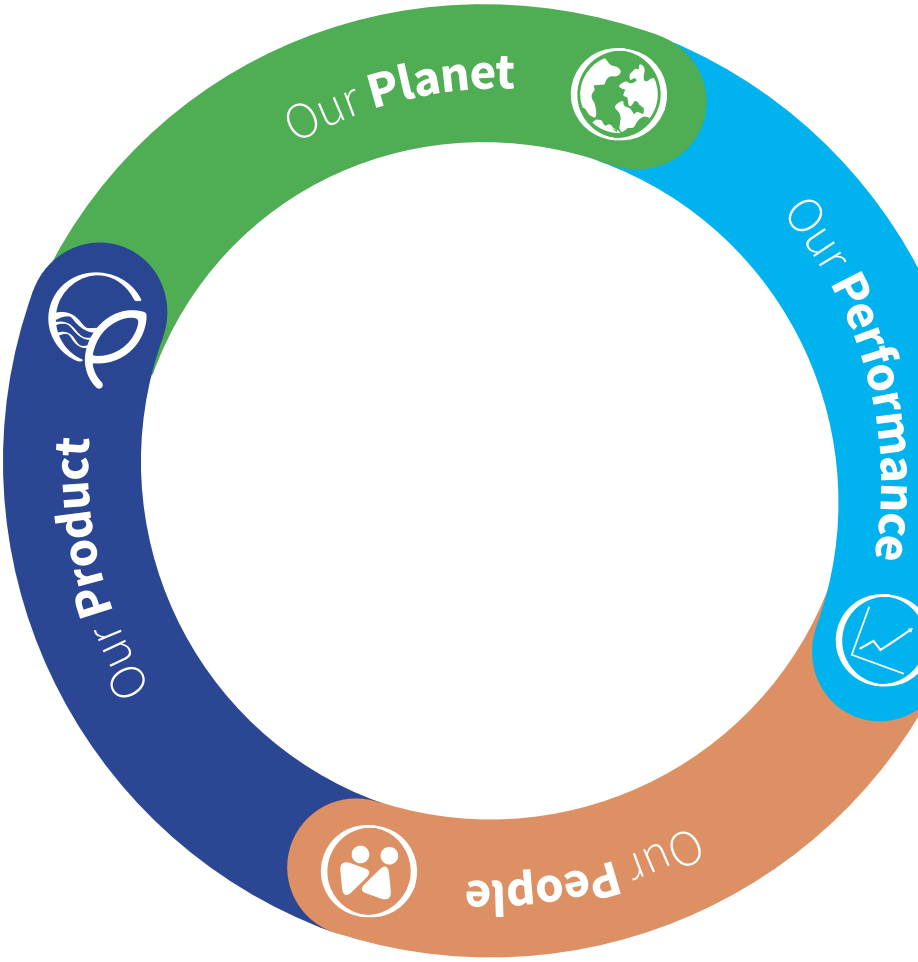
GRI 102: General Disclosures	Reporting Practice		
	102-45: Entities included in the consolidated financial statements	N/A	Tassal Group Limited which includes wholly owned subsidiaries: Tassal Share Plan Administration Pty Ltd, Tassal Operations Pty Ltd (incorporating De Costi Seafoods Pty Ltd, a wholly owned subsidiary of Tassal Operations Pty Ltd) and Aquatas Pty Ltd.
	102-46: Defining report content and topic boundaries	N/A	p.70
	102-47: List of material topics	N/A	p.71
	102-48: Restatements of information	N/A	p.70
	102-49: Changes in reporting	N/A	p.70
	102-50: Reporting period	N/A	p.70
	102-51: Date of most recent report	N/A	Sustainability Report 2017
	102-52: Reporting cycle	N/A	Annual
	102-53: Contact point for questions regarding the report	N/A	sustainability@tassal.com.au
	102-54: Claims of reporting in accordance with the GRI Standards	N/A	p.70
	102-55: GRI Content Index	N/A	pp.78-83
	102-56: External assurance	N/A	p.70

Specific Disclosures: Material Topics			
GRI 200: Economic			
ECONOMIC PERFORMANCE			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	Annual Report 2018 pp.2-8 https://issuu.com/tassal/docs/tassal_annual_report_2018
GRI 201: Economic Performance 2016	201-1: Direct economic value generated and distributed	I	p.54 Annual Report 2018 pp.28-32 https://issuu.com/tassal/docs/tassal_annual_report_2018
	201-2: Financial implications and other risks/ opportunities due to climate change	I	pp.8, 10, 11
PROCUREMENT PRACTICES			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	pp.46-47, 51
GRI 204: Procurement Practices 2016	204-1: Proportion of spending on local suppliers	I	p.55
ANTI-CORRUPTION			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	p.57
GRI 205: Anti-corruption 2016	205-1: Operations assessed for risks related to corruption	I	p.57
	205-2: Communication and training about anti-corruption policies and procedures	I	p.57
	205-3: Confirmed incidents of corruption and actions taken	I	p.57
GRI 300: Environmental			
MATERIALS			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	pp.19, 52
GRI 301: Materials 2016	301-1: Materials used by weight or volume	I	pp.19, 52 In the reporting period we were not able to determine the packaging materials used by weight or volume, however in FY2019 we will develop and implement a project with a focus on gather-ing appropriate data to allow for better reporting going forward .

ENERGY			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	p.27
GRI 302: Energy 2016	302-1: Energy consumption within the organisation	I	pp.27, 28
	302-4: Reduction of energy consumption	I	p.28
WATER			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	p.29
GRI 303: Water 2016	303-1: Water withdrawal by source	I	p.29 Does not include dam water used by Southern Zone land bases. Data for reticulated water from MOPS and all freshwater sources from processing is sourced from invoices. Data for all other freshwater for MOPS 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.
BIODIVERSITY			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	pp.14-18
GRI 304: Biodiversity 2016	304-1: Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	I	77
	304-3: Habitats protected or restored	I	pp.14-18
	304-4: IUCN Red List species and national conservation list species with habitats in areas affected by operations	I	pp.16, 17
EMISSIONS			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	p.28
GRI 305: Emissions 2016	305-1: Direct (Scope 1) GHG emissions	I	p.28
	305-2: Energy indirect (Scope 2) GHG emissions	I/E	p.28
	305-3: Other indirect (Scope 3) GHG	I/E	p.28
	305-5: Reduction of GHG emissions	I	p.28
EFFLUENTS AND WASTE			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	p.19
	306-2: Waste by type and disposal method	I/E	p.19
ENVIRONMENTAL COMPLIANCE			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	pp.22, 23
GRI 307: Environmental Compliance 2016	307-1: Non-compliance with environmental laws and regulations	I	There has been no non-compliance with environmental laws and regulations in the reporting period.
SUPPLIER ENVIRONMENTAL ASSESSMENT			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	pp.46,48
GRI 308: Supplier Environmental Assessment 2016	308-1: New suppliers that were screened using environmental criteria	I/E	pp.46,48
	308-2: Negative environmental impacts in the supply chain and actions taken	I/E	There were no negative environmental impacts in the supply chain required action in the reporting period.

GRI 400: Social			
EMPLOYMENT			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	p.37
GRI 401: Employment 2016	401-1: New employee hires and employee turnover	I	p.38
	401-3: Parental leave	I	p.39
OCCUPATIONAL HEALTH AND SAFETY			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	pp.33,34
GRI 403: Occupational Health and Safety 2016	403-1: Workers representation in formal joint management-worker health and safety committees	I	p.34
	403-2: Types of injury and rates of injury, occupational diseases, lost days, and absenteeism and number of work related fatalities	I	pp.35, 36 Safety data is taken from our WHS Dashboard. Our dashboard is comprised of data extracted from multiple sources: incident reports, corrective action plans and training or licencing registers as a few examples. Much of the data is uploaded automatically onto this dashboard from initial reports supplying real-time information for sites and WHS staff to use. First aid level injuries are included; lost days are calculated as scheduled work days; lost days begin the next rostered day after the incident.
	403-4: Health and safety topics covered in formal agreements with trade unions	1	p.34
DIVERSITY AND EQUAL OPPORTUNITY			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	p.37
GRI 405: Diversity and Equal Opportunity 2016	405-2: Ratio of basic salary and remuneration of women to men	I	p.39
HUMAN RIGHTS ASSESSMENT			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	pp.46,48
GRI 412: Human Rights Assessment 2016	412-1: Operations that have been subject to human rights reviews or impact assessments	I/E	pp.46,48
SUPPLIER SOCIAL ASSESSMENT			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	pp.46,48
GRI 414: Supplier Social Assessment 2016	414-1: New suppliers that were screened using social criteria	I/E	pp.46,48
	414-2: Negative social impacts in the supply chain and actions taken	I/E	There were no negative social impacts in the supply chain that required action in the reporting period.
SOCIO-ECONOMIC COMPLIANCE			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	pp.46, 48
GRI 419: Socioeconomic Compliance 2016	419-1: Non-compliance with laws and regulations in the social and economic area	I	There has been no non-compliance with laws and regulations in the social and economic area in the reporting period.
BIOSECURITY			
GRI 103: Management Approach 2016	Management Approach (103-1; 103-2; 103-3)	I	pp.6, 7, 12, 19, 41, 43

Food Processing Sector Disclosures: GRI G4			
Procurement/ Sourcing Practices	Disclosure on Management Approach	I	p.46-48
	FP1: Percentage of purchased volume from suppliers compliant with the company's sourcing policy	I/E	This information is not available for the reporting period.
	FP2: Percentage of purchased volume which is verified as being in accordance with credible, internationally recognised responsible production standards, broken down by standard	I/E	This information is not available for the reporting period.
	FP9: % and total of animals raised and/or processed by species and breed type	I	p.54 This information is not available for Seafood as it is commercial in confidence.
	FP10: Policies and practices related to physical alterations and the use of anaesthetic	I	p.43
	FP11: % and total of animals raised and/or processed, by species and breed type, per housing type	I	pp.50, 54 This information is not available for Seafood as it is commercial in confidence.
	FP12: Policies and practices on antibiotic, anti-inflammatory, hormone, and/or growth promotion treatments	I	p.42
	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	I	There were no incidences of non-compliance with laws and regulations related to transporta-tion, handling and slaughter practices.



tassal

sustainability@tassal.com.au
tassalgroup.com.au
TassalSalmon
Tassal - Our Community
tassal_ourcommunity
Tassal