tassal®

# Sustainability Report 2012

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# Message from Chairman, Managing Director & CEO

Tassal is committed to being the industry leader in sustainable aquaculture production in Australia. Coupled with our commitment to maximise shareholder value and maintain the safety of our team, we believe that it is also our role to understand how we as a company can support food security through the supply of sustainably farmed Salmon.

By leading the way in sustainable aquaculture in Australia, not only do we make a difference in our own country, we are also nurturing an innovative, dedicated team capable of adapting the technical aspects of aquaculture and responsible environmental management to assist countries with greater food security challenges than our own. In the coming year we will be working to see how best we can contribute by sharing these skills.

Reporting on our activities has provided us with a mechanism to track our sustainability performance year on year and highlights our commitment to sustainable practices in the public domain both as a company, and as individuals within Tassal. Our sustainability reporting process is working.

*Increasing the scope of the report is really about increasing the transparency of our operations. We were rewarded last year with positive feedback about Tassal's first steps towards opening up our operations for scrutiny. This has given us the confidence to continue down this pathway.*

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In this FY2012 reporting year, Tassal's strategic focus on the Australian domestic market has produced growth in revenue in both the retail and wholesale segments. Our strategy of maximising per capita consumption of Salmon in Australia is clearly producing results, with market penetration levels continuing to improve. With the global oversupply of Salmon, our export market was volatile. With export returns not expected to improve over the short to medium term, we will continue to focus on the Australian market.

Tassal's investment in infrastructure has produced world-class hatching, growing and processing facilities, together with providing appropriate risk mitigation measures for agricultural risk. This has allowed us to sustainably grow harvest tonnes over the past 12 months through a combination of larger fish and greater harvest numbers, ensuring supply as we continue to lead the way in growing the per capita consumption of the Australian market.

Key financial highlights for FY2012 were:

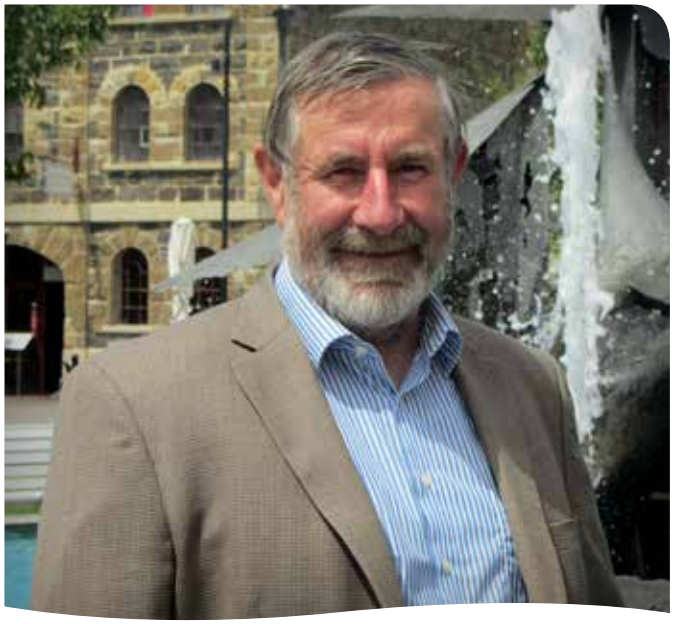
- Revenue increased 16.0% to $261.7 million (FY2011: $225.6 million)
- Australian market sales revenue and volume growth of 23.1% and 24.9% respectively
- Operating EBITDA was up 6.8% to $50.0 million (FY2011: $46.8 million)
- Operating NPAT was up 2.8% to $22.2 million (FY11: $21.6 million)
- Net assets increased to $295.1 million
- Gearing continued to decrease with net debt to equity down to 25.6% (30 June 11: 31.8%)
- Strong growth in operating cash flow, increasing 21.4% to $50.4 million (FY11: $41.5 million)
- A final FY2012 unfranked dividend of 4.0 cents per share resulted in total FY12 dividends of 8.0 cents per share (FY2011: 2.0 cents per share).

We are quite positive about these results particularly in light of poorer than expected export market returns due to the global oversupply of salmon.

This year we completed our first assessment of the life cycle of our product, received awards recognizing our commitment to improving our sustainability, strengthened our commitment to OH&S and further improved our performance in a number of key financial and operational metrics. Most goals and targets were achieved but a few were not. We think this speaks to us getting the balance about right – we are setting difficult but realistic goals and targets and we are building the capacity to meet those targets.

This year we said goodbye to Yvonne Parsons, who has been with Tassal for 24 years. The perspective that Yvonne provides on Tassal's journey reflects changes we have experienced over this time.

We have again made significant progress on our people initiatives during this reporting period. Our commitment to




our people continues to be focused on aspects that build a sustainable business, such as safety, leadership development and communication. The progress we have made on our safety journey continues to make us proud, although we note that we still have a considerable amount of work to do. We have committed people who are supported at every level of the organisation to put safety at the highest priority. Zero Harm For Everyone, Everywhere – nothing less is acceptable.

Our partnership with WWF-Australia has afforded us the opportunity gain a new appreciation of the perspective of Environmental NGO's and the important role they play in our society to drive environmental awareness.

Our overarching strategic focus is to deliver sustainable long term returns to shareholders as the leader of the Salmon Industry in Australia, selling a highly recognised ethical valued brand and product to consumers and retailers. We want to be recognised as the champion of the sustainable Salmon industry for consumers, customers and regulators. Included in this focus is a dedication to understand the needs of all stakeholders and to be mindful of our social and environmental responsibilities.

Accordingly, key operational priorities for Tassal in FY2013 are to:

- Deliver on our commitment of Zero Harm For Everyone, Everywhere
- Implement further sustainability initiatives to support our growth; together with maintaining and improving our social license to operate in Tasmania
- Increase Australian Salmon awareness and per capita consumption via a national marketing campaign and other marketing initiatives
- To maintain or exceed global best practice in environmental management
- Move towards global best practice cost in the production of our fish
- Utilise supply chain and marketing capabilities to diversify into sales of other sustainable seafood.

Our first sustainability report was an important achievement for our company. It is our ongoing commitment to maintain and improve on our reporting of business practices that will create important benchmarks for the future and drive operational improvements.

We firmly believe that Tassal shoulders quite a responsibility as the leader in sustainable aquaculture production in Australia and as a world industry leader to 'up the ante' in the adoption of sustainable aquaculture best practices. We lay down the challenge to other companies to do the same.

In 2012, Seafood Intelligence rated Tassal as one of the world's top three Salmon farmers in corporate, social and environmental reporting. Tassal was benchmarked against elements of aquaculture standards released by the WWF led multi-stakeholder driven Salmon Aquaculture Dialogue and other criteria. This achievement is not without an extraordinary amount of hard work and dedication by all Tassal staff and we would like to acknowledge our stakeholders, partners, supporters and critics. Thank you for participating, speaking up and holding us accountable. Without this ongoing conversation we would not be the company we are today.

Allan McCallum
Chairman of the Board

Mark Ryan
Managing Director and
Chief Executive Officer

# Message from our Head of Sustainability

*Head of Sustainablity, Linda Sams*

I am pleased to be introducing our second annual sustainability report. We have accomplished and learned a great deal this past year as we grow to understand that sustainability is not a task that is 'completed' but rather an ongoing process of awareness, innovation, improvement and just plain hard work.

Sometimes things go wonderfully right, however sometimes things go terribly wrong. It is the relationships, partnerships, dedication and conviction of Tassal staff and all our colleagues and stakeholders that make this journey worth the effort.

This year we want to introduce the Environmental and Sustainability team that supports our varied operations in their work of farming, processing and selling a high value and ethically produced product.

We have a wonderful mix of talent on our team from biologists to fish veterinarians, with many years of varied experience. I can assure you they are all passionate about their jobs and theirs is a service attitude to all divisions of our company and to our stakeholders. I would like to make special mention of Fiona Ewing, our Community Engagement Officer who took the lead in the production of this year's report.

Our team is very closely linked with all our operations on a technical level which allows us to have meaningful input into routine and daily activities. Just as importantly, we are involved in all aspects of business planning within the company which allows for sustainability to be truly at the forefront of our decision making. Tassal has invested in both the operational and infrastructure resources needed to support our sustainability goals and this is reflected in both the capacity of our team and in this past year's accomplishments.

We proudly entered into our partnership with WWF-Australia in March 2012. This important partnership which coincided with the launch of our first sustainability report, underpins our mission to improve our environmental practices. We are extremely pleased to have their guidance as we continue on our journey.

*We have accomplished and learned a great deal this past year as we grow to understand that sustainability is not a task that is 'completed' but rather an ongoing process of awareness, innovation, improvement and just plain hard work.*

*The Environment & Sustainability Team*
*Back Row Left to right*
- *Matt Barrenger – Senior Environmental Officer*
- *Heidi Hansen – Environmental Certification Officer*
- *Carlos Zarza – Senior Manager, Fish Health*
- *Belinda Yaxley – Environmental Advisor*
- *Sam Kruimink – Environmental Officer*

*Front Row Left to right*
- *Fiona Ewing – Community Engagement Officer*
- *Linda Sams – Head of Sustainability*
- *Alistair Brown - Veterinarian*

We also completed our first Life Cycle Assessment (LCA) which will be an important tool to measure our impacts and benchmark our improvements into the future. We expanded our fish health department in order to improve our fish health and welfare practices and we joined forces with our colleagues at other Tasmanian Salmon companies to produce the very first aquaculture Area Management Agreement in Australia.

There were several additional highlights this year, further improving our fish in: fish out ratios and taking important next steps in our Best Aquaculture Practice (BAP) and Aquaculture Stewardship Council (ASC) certification processes and WWF-Australia assessment. These are all adopted voluntarily, and we see achieving these certifications as a natural part of our sustainability commitments. We also had some challenging situations to face this past year, but even those provided opportunities for improved practices and improved awareness. The sinking of a major harvest vessel (no one was hurt and no oil spilled) spurred us to action regarding oil spill preparedness, and a dolphin death at one of our marine sites vividly underlined the fact that we share the marine space and need to be constantly vigilant about our impact on other creatures.

Thank you for taking the time to read this report and a big thank you to the men and women of Tassal who are making a difference.

Linda Sams

# About this Report

*Tinderbox farm site, Tasmania*

Tassal's second sustainability report introduces new material issues and updates the data presented in last year's report. In determining material topics for this report, we have considered stakeholder feedback resulting from the publication of our FY2011 sustainability report and our Sustainability Report Advisory Committee. Also considered was additional stakeholder feedback, provided to the Tasmanian Salmon Industry, during a public environmental conference in March 2012.

Additional feedback was obtained via public submissions received in an open call government consultation process that specifically addressed a proposed amendment to the Marine Farm Development plan in Macquarie Harbour.

Data from 2010, 2011 and 2012 have been used where possible to illustrate trends and we refer to our FY2012 annual report and FY2011 sustainability report as necessary, to provide context. Each year, our target is to release our sustainability reports in January following the previous financial year.

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

## Report Scope and Boundary

This report covers the financial year 1st July 2011 to 30th June 2012 which is referred to in the report as 'FY2012'.

The report records our performance in material areas and issues of the business and the progress made towards goals set out in FY2011. We have increased the scope and boundary of our report by including environmental and fish health and welfare indicators for our fresh water sites (hatcheries). Last year's environmental and fish health and welfare indicators were focused solely on our marine operations.

There are no other limitations on the scope and boundary of this report. Tassal is a company listed on the Australian Stock Exchange and changes in ownership structure occur as a result of share trading. For Tassal's top 20 shareholders, refer to our FY2012 Annual Report available at www.tassal.com.au. There were no new shares issued by Tassal in FY2012, accordingly there were no material changes in Tassal's issued capital. Tassal has taken into consideration the GRI's principles on defining report content in the selection of material aspects and indicators.

Human resource, food quality and OH&S data covers Tassal's entire business operations. Last year's report incorrectly stated that human resource data including quality and OH&S, included information from marine operations and operations outside Tasmania. The data reported was in fact across Tassal's entire business operations. Data measurements, techniques and calculations have been described through the report. Where 'Salmon' is mentioned throughout the report, we mean 'Atlantic Salmon'.

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

Tassal did not seek external assurance for this report, although all underlying financial and food quality data is externally audited.

In FY2013, we aim to further expand the scope of our reporting to include environmental data of our processing facilities.

## Improving our Report Scope and Boundary

| | FY2011 | FY2012 | FY2013 |
|---|---|---|---|
| Environment | Marine Operations only | • Marine Operations<br>• Hatcheries | • Marine Operations<br>• Hatcheries<br>• Processing |
| Fish Health and Welfare | Marine Operations only | • Marine Operations<br>• Hatcheries | • Marine Operations<br>• Hatcheries |
| Human Resources (HR) | All of business | | |
| Occupational Health & Safety (OH&S) | All of business | | |
| Quality | All of business | | |

# Corporate Governance

Tassal is committed to maintaining high standards of corporate governance appropriate to its size and operations to effectively manage risk, improve performance and enhance corporate responsibility. Our Corporate Governance structure, processes and policies have not changed since our last reporting period.

Unless explicitly stated in our 2012 Annual Report, the Directors believe that Tassal complies with the core principles and underlying recommendations of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations (www.tassal.com.au).

During FY2012, there were four resignations from the Tassal Board of Directors. Directors current, as at 30 June 2012 include Mark Ryan, Managing Director and Chief Executive Officer, and four male non-executive directors with additional responsibilities, including Allan McCallum, Chairman. Three of the four non-executive directors are considered by the Board to be independent of the ASX Corporate Governance Council's definition of an Independent Director.

For further information on Tassal's Corporate Governance strategy and policies, please reference our FY2011 Sustainability Report, our FY2012 Annual Report or our Corporate Governance Policies web portal (www.tassal.com.au).

# Salmon Farming in Tasmania

Salmon farming commenced in Tasmania in the mid-1980s after the Tasmanian Fisheries Development Authority concluded that a Salmon farming industry could be successfully developed. In 1984, the first fertilised Atlantic Salmon eggs were purchased from the Gaden hatchery in NSW.

The original bloodlines were imported from Nova Scotia, Canada, during the 1960s. A sea farm was established at Dover, approximately 130 kilometres south of Hobart and a hatchery was developed at Wayatinah in the Central Highlands. Tassal still operates farms in the Dover region to this day.

# Nutritional Value of Salmon

Atlantic Salmon remains one of the richest sources of omega 3 fats available from food.

It is a good source of protein and contains a range of other essential micronutrients including iodine, zinc, selenium, vitamin B12 and vitamin E.

Atlantic Salmon is also one of very few foods that contain vitamin D, with levels much higher than found naturally in other food sources. Many people are deficient in this essential nutrient because we synthesise it when our skin is exposed to the sun and most Australians shelter themselves from the sun.

# Tassal – a snapshot

**1986** Tassal is established

**1986/87** First commercial harvest of 53 tonnes is achieved

**2002/03** Tassal is placed into receivership

**2003** Tassal acquires Nortas

**2005** Tassal merges with Aquatas

**2002-2012** Australia's largest grower of Atlantic Salmon

## Our Business

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

## Our Financial Performance*

The table below reports comparative key consolidated financial performance indicators for FY2012 and FY2011.

| | Financial Year Ended 30 June 2012 $'000 | Financial Year Ended 30 June 2011 $'000 | Period Movement up/(down) $'000 | Period Movement up/(down) % |
|---|---|---|---|---|
| Revenue (from all sources) | 261,702 | 225,635 | 36,067 | 15.98% |
| EBITDA | 59,559 | 59,202 | 357 | 0.60% |
| EBIT | 44,215 | 47,332 | (3,117) | (6.59%) |
| Profit before income tax expense | 37,724 | 40,580 | (2,856) | (7.04%) |
| Income tax expense | (9,637) | (10,300) | (663) | (6.44%) |
| Net profit after income tax expense | 28,087 | 30,280 | (2,193) | (7.24%) |
| Basic earnings per share (cents) | 0.1920 | 0.2078 | (0.0158) | (7.62%) |
| Diluted earnings per share (cents) | 0.1911 | 0.2070 | (0.0160) | (7.71%) |
| Gearing Ratio | 25.56% | 31.72% | (0.062) | (19.43%) |
| Interest Cover (x) | 6.81 | 7.01 | (0.20) | (2.83%) |
| Net Assets ($'000) | 295,058 | 275,681 | 19,377 | 7.03% |
| Net Assets per Share ($) | 2.02 | 1.88 | 0.13 | 7.03% |
| NTA ($'000) | 256,023 | 236,646 | 19,377 | 8.19% |
| NTA per Share ($) | 1.75 | 1.62 | 0.13 | 8.19% |
| ROE (NPAT/Equity) | 9.52% | 10.98% | (0.015) | (13.33%) |
| ROCE (EBIT)/Debt + Equity) | 11.93% | 12.74% | (0.008) | (6.34%) |
| ROA (EBIT/Total Assets) | 9.01% | 10.28% | (0.013) | (12.33%) |

*Definitions:*

*Interest Cover (x): EBIT/finance costs (Note: exclusive of borrowing costs capitalised to biological assets pursuant to AASB 123 'Borrowing Costs')*

*NTA ($'000): Total equity less goodwill and other intangible assets* *NTA per Share ($): (Total equity less goodwill and other intangible assets)/shares on issue*

*ROE (NPAT): Net profit after tax/total equity* *ROCE (EBIT): EBIT/Net debt plus total equity* *ROA (EBIT): EBIT/total assets*

*Full financial disclosure can be accessed in our 2012 Annual Report (see: www.tassal.com.au)

Note: Payments to capital providers and government are not included as Tassal does not separately disclose this information. Employee compensation and payments are not included in this report (key management personnel compensation and payments are disclosed in our Annual Report)

## Our Production

- Tassal grows Atlantic Salmon, *Salmo salar*
- Harvest tonnage: 23,536 hog tonnes
- Fish in sea water as at 30 June 2012: 8,181,127
- Fish biomass in sea water as at 30 June 2012: 15,537,769 live weight tonnes
- Combined processing output: 23,387 hog tonnes
- 41.7% of the combined processing output was turned into value added product such as smoked fish

## Our Network

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

## Our People

- Full time employees: 533
- Part time employees: 32
- Casual employees: 210
- Seasonal employees: 86
- Fixed term contract: 2
- Temporary seasonal: 1

## Our Brands

Tassal sells and markets unbranded products as well as branded products.

### Branded vs unbranded revenue & volume

| | Volume % | Revenue % |
|---|---|---|
| Unbranded | 73% | 66% |
| Branded | 27% | 34% |

## Our Markets


*Note: Last year we separately reported on the food service channel. This year data for the food service channel was not available due to different data collection methods, although it has not substantively changed from the 1% reported last year and is included within the Wholesale category.*

## Memberships

Tassal is a member of the Tasmanian Salmon Growers Association, the Tasmanian Seafood Industry Council, and the National Aquaculture Council and the Tasmanian Business Sustainability Roundtable.

## Awards

### Coles Sustainable Seafood Leadership Award

Tassal was presented with the Coles Sustainable Seafood Leadership Award at the Annual Coles Seafood Supplier Forum, in recognition of our environmental policies and procedures, as well as Tassal's ongoing benchmarking of sustainability programmes and initiatives.

Coles Head of Responsible Sourcing and Quality, Jackie Healing, said "Proactive suppliers like Tassal recognise that moving towards a sustainable seafood supply chain not only makes good environmental sense but also creates new business opportunities as customers put greater importance on the sustainability of the products they buy."

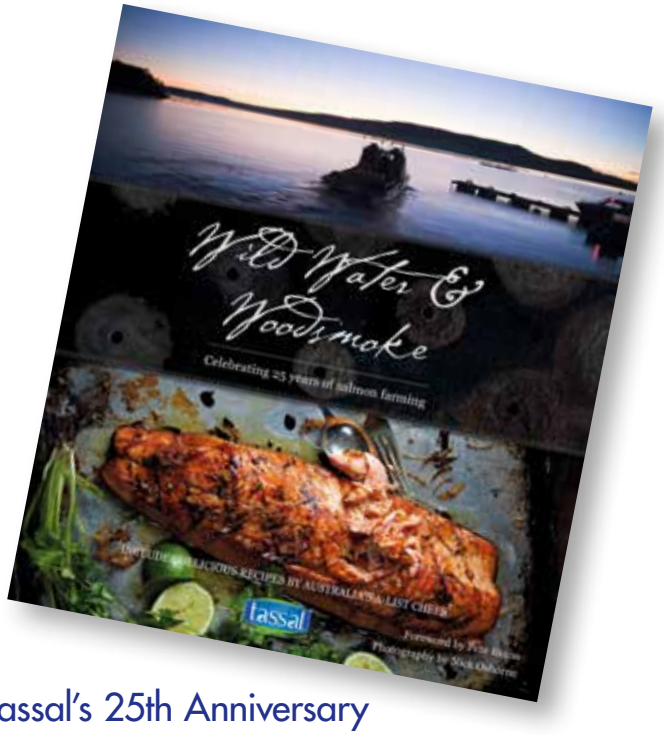
Coles has set an ambitious and worthwhile target to provide customers with exclusively sustainable fresh, frozen and canned seafood by 2015, an objective Tassal looks forward to helping Coles achieve.

### Blue Thumb Award

At the 2012 Australasian Aquaculture conference in Melbourne, Tassal became the inaugural winner of the 'Blue Thumb' award. This award recognised Tassal for the application of innovative and sustainable practices that will have lasting impacts on Australasian aquaculture over the next 10 years.

### Wrest Point Royal Hobart Fine Food Awards

Tassal won a silver and two bronze awards in recognition of exciting new products launched, at the Wrest Point Royal Hobart Fine Food Awards, 2012. Tassal's Innovation Centre at Margate continues to focus on developing and testing new and innovative products. In 2012 Tassal launched nine new products into the market place.




## Tassal's 25th Anniversary

Australian families have enjoyed Tassal Tasmanian Salmon for the last 25 years. To celebrate this milestone Tassal released the book "*Wild Water & Woodsmoke*". The book celebrates Tassal's journey from challenging beginnings into todays successful and sustainable industry leader.

Dale Williams, Tassal Head of Sales and Marketing says "the book encompasses Tassal's spirit in building accessibility to Tassal's versatile Salmon range".

Australia's leading chefs praise Tassal Salmon for its delicious taste, cooking diversity and proven health benefits. Wild Water & Woodsmoke includes over 40 contemporary dishes from some of Australia's best cooks and chefs including Pete Evans, George Calombaris, Shane Delia, Teage Ezard, Jacques Reymond and Gabrielle Gaté.

# Tassal Group partners with WWF-Australia


One of the most exciting developments in the reporting year was the signing of Tassal's partnership with WWF-Australia in March, 2012. This important partnership underpins our mission to improve environmental practices and we are pleased to have their guidance as we continue on this journey.

Through the partnership with WWF, we are aiming to be the leader in responsible aquaculture production in Australia with all Tassal products meeting best practice environmental standards.

Tassal and WWF will work together to ensure responsibly sourced seafood is available in stores, restaurants and fish markets in Australia.

The first year of our partnership saw Tassal:

- Sign the WWF Global Seafood Charter
- Publically commit to the cessation of enacting the Seal Destruction Protocol
- Engage feed suppliers on sustainable sourcing of ingredients
- Develop additional Wildlife Interaction protocols
- Develop escape protocols & response plans
- Develop fish health management plans

We will also be investing in WWF conservation projects as part of our partnership and as a commitment to responsibly sourced seafood. We have entered into this partnership to ensure that by 2015 all Tassal products will meet best practice environmentally responsible standards.

Additionally, Tassal aims to be the first aquaculture operation in the Asia-Pacific region to achieve Aquaculture Stewardship Certification.

Visit www.tassal.com.au to read the WWF Sustainable Seafood Charter.

WWF's mission is to stop the degradation of the earth's natural environment and to build a future in which humans live in harmony with nature.

WWF works with the fishing & aquaculture industry and other businesses, as well as government and local communities - in Australia, New Zealand, Oceania and globally - to safeguard marine wildlife, the natural environment and the livelihoods of people who depend on the oceans for their wellbeing.

The aim of the partnership is to ensure all Tassal seafood is produced through the highest global standard of responsible aquaculture practices by 2015 and to educate consumers about responsibly produced seafood including Aquaculture Stewardship Council (ASC) certified products.

**WWF SUSTAINABLE SEAFOOD CHARTER**

WWF is creating solutions to the most serious environmental problems facing our planet, helping people and nature to thrive. WWF works with the fishing industry and other businesses, as well as government and local communities - in Australia, New Zealand, Oceania and globally - to safeguard marine wildlife, the natural environment and the livelihoods of people who depend on the oceans for their well-being.

**This Charter jointly commits Tassal Group and WWF to:**

- Contribute to a future in which sustainable aquaculture thrives in healthy ecosystems, benefiting people, businesses and local communities.
- Work together towards sustainable aquaculture management and production.
- Safeguard valuable marine ecosystems, ensuring the long-term viability of seafood supply that we all depend on.

WWF

PARTNERING WITH TASSAL FOR SUSTAINABLE AQUACULTURE

**WWF SUSTAINABLE SEAFOOD CHARTER**

**This Charter commits the Tassal Group to:**

- Developing a sustainable operations improvement plan to include promotion of the MSC and ASC, ensure traceability of all Tassal salmon products.
- Promote and improve transparency and awareness amongst customers, employees and other key stakeholders.
- Help contribute to and improve policy and management reform in order to secure healthy marine ecosystems and sustainable aquaculture.
- Contribute to and support the establishment and development of standards for certifying aquaculture products.
- Ensure all fish meal products come from sustainable sources.
- Ensure traceability of all Tassal products.
- Make our sustainable seafood policy publically available.
- Make key sustainability information regarding our products and operations easily accessible to stakeholders and consumers.

*Associated with relevant feed sources associated with fish meal from wild caught fisheries.*

# Goals and Targets

As part of our risk management strategy, we set goals and targets across a broad range of key sustainable development metrics. Importantly, this serves to drive improvements in performance in the environmental, social, and economic aspects of our business. All goals and targets are endorsed by the Tassal Board.

We are proud to report that 80% of our 30 goals and targets set out in last year's sustainability report were successfully achieved (24 completed, six not completed).

While setting out such a high number of goals and targets seemed ambitious, our intention was to aim high and risk not achieving them all, rather than setting mediocre goals that were easily achievable. Targets not achieved during the reporting year have been rolled over to the FY2013 reporting year as 'ongoing' with expected completion in that time.

This year, we have set 21 new goals and 22 targets.

| Further integration of sustainability measures at Tassal | | |
|---|---|---|
| FY 2012 Sustainability Goals | Target | FY 2012 Achieved |
| Broaden the sustainability report scope | Include freshwater hatchery rearing facilities | Yes |
| Third Party Life Cycle Assessment (LCA) of Tassal product | Report on the results of the LCA and plan actions to improve efficiencies | Yes |
| Further develop research strategy to support sustainability objectives | List research initiatives and collaborations in 2012 report | Yes |
| Further implement Fish Welfare Standards | Report on progress | Yes |
| FY 2013 Sustainability Goals | Target | New or Ongoing goal |
| Achieve accreditation of an Environmental Management System (EMS) | Achieve third party accreditation | Ongoing |
| Achieve 'Best Aquaculture Practice' (BAP) certification | Report on progress | New |
| Achieve 'Aquaculture Stewardship Council' (ASC) certification | Report on progress | New |
| Develop actions to address inefficiencies highlighted in the LCA | Report on progress | New |
| Complete implementation of Fish Welfare Standards across operational regions | Report on progress | New |
| Implement comprehensive AGD Strategy | Report on progress | New |
| Environment | | |
| FY 2012 Sustainability Goals | Target | FY 2012 Achieved |
| Achieve targets and KPI's as set out in the Australian Packaging Covenant (APC) Action plan | Report targets achieved | Yes |
| Implement beneficial reuse of organic waste | Report % of total organic marine and processing waste that goes to reuse | Yes |
| Further reduce antibiotic use | Report on antibiotic per kg of Salmon produced | Yes |
| Further decrease dependence on forage fisheries and set further targets | Report actual results based on Fish In, Fish Out (FIFO) ratios | Yes |
| Further investigate alternate (by-product) fish meals through collaboration with major feed suppliers | Report results of collaboration with major feed suppliers | Yes |
| Further decrease seal interactions with farms | Report and improve on FY2011 interaction statistics | Yes |
| Implement further bird interaction protocols | Report on number of bird interactions | Yes |
| Further improve benthic health management | Achieve compliance with regulation | Yes |

| Environment continued | | |
|---|---|---|
| FY 2012 Sustainability Goals | Target | FY 2012 Achieved |
| Eliminate use of copper treated nets | Report % copper nets used across Tassal with the target for nets to be copper free by the end of FY2013 | Yes |
| Set up framework to evaluate freshwater use across the company | Describe and report evaluation framework | Yes |
| FY 2013 Sustainability Goals | Target | New or Ongoing goal |
| Further focus on dissolved nutrients and water quality | Communicate modelling results | Ongoing |
| Review state of knowledge of seal populations and conduct ecological risk assessment for seals in Tasmania | Complete reports | Ongoing |
| Set targets to reduce energy use | Report action plan to reduce fuel and electricity use | Ongoing |
| Interaction with critical or sensitive habitats and species | Map and describe interactions | New |
| Report on freshwater use across company | Report freshwater used | New |
| Commercial application of KikkoNets | Report results | New |
| Report on Joint Conservation projects with WWF | Report results | New |
| Increase Staffing in wildlife management | Implement staff increases | New |
| Develop framework for skill sharing with developing countries | Report results | New |
| Develop Life Cycle Assessment Action Plan | Report progress | New |
| People | | |
| FY 2012 Sustainability Goals | Target | FY 2012 Achieved |
| Further improve Tassal safety performance | Report injuries and lost time days | Yes |
| Further improve safety culture | Report survey results | Yes |
| Improve staff retention | Report numbers | Yes |
| Further improve gender equality | Report % male and female staff | Yes |
| Maintain people development through training | Report total training hours | Yes |
| Report on staff performance reviews | Report % completed | Yes |
| FY 2013 Sustainability Goals | Target | New or Ongoing goal |
| Continue focus on improving safety | Ensure compliance with new National WHS requirements | New |
| Continue focus on improving safety | Further Cert IV OH&S training | New |
| Improve communication | Launch Corporate Strategy Pack | New |
| Revise performance review process | Achieve better alignment to Corporate Strategic Plan | New |
| Update induction program | Revise method of delivery | New |
| Community | | |
| FY 2012 Sustainability Goals | Target | FY 2012 Achieved |
| Continue to contribute to our local communities | Improve donation strategy to support education, youth and community priorities. Report % and type of donation | Yes |
| Achieve clearer reporting of environmental and social complaints | Report number of environmental and social complaints by region and issue | Yes |
| Increase community engagement events | Report number of events | Ongoing |
| Create newsletter | Implement newsletter | Ongoing |

| Community continued | | |
|---|---|---|
| FY 2013 Sustainability Goals | Target | New or Ongoing goal |
| Implement community fund in Strahan | Community fund implemented | New |
| Create Framework for knowledge bank | Report on knowledge bank | New |
| **Food Safety & Quality Accountability** | | |
| FY 2012 Sustainability Goals | Target | FY 2012 Achieved |
| Maintain compliance certifications | Achieve successful audits and compliance | Yes |
| Improve customer feedback system | Include number, type of complaints and trends | Yes |
| FY 2013 Sustainability Goals | Target | New or Ongoing goal |
| Introduce reviewed document management system | Implement QPulse | New |
| Expand supplier audit program to better align sustainability & ethical aspects | Fully revise current process | New |

# Stakeholder Engagement

Stakeholder engagement is a crucial element in the development of our sustainability reports. We take stakeholder feedback very seriously and use it as a catalyst for change at Tassal. Our stakeholder engagement model is benchmarked against national and international Salmon and other food industry producers, retailers as well as Australian resource industries.

*We take stakeholder feedback seriously and use it as a catalyst for change in the company.*

*Fiona Ewing, Community Engagement Officer.*

We once again relied on our Sustainability Report Advisory Committee for input into the report and have validated the materiality of the content of this report through the following processes:

| Stakeholder group | Engagement method | Stakeholder expectations |
|---|---|---|
| Customers | Our website serves as a point of contact for general enquiries and is well utilised. Complaints and customer feedback are received via a 1800 number or through our website, retail outlets and staff. Tassal's two Salmon shops in Melbourne and Hobart have informational displays about our operations.<br><br>Our marketing department also conducts consumer polls. | Locally produced, affordable, consistently high quality and convenient product that tastes great and is healthy<br><br>Preference for convenient options for every occasion with easy to use packaging and Salmon that is easy to prepare. |
| Investors | Tassal has a diverse group of approximately 4000 shareholders. Our AGM was held in October 2011 and we conducted three investor presentations during FY2012. Shareholders are also provided with media releases, shareholder updates, and occasional letters. Our website has a detailed investor's section containing all corporate governance policies. | Tassal to be a successful company<br><br>Positive share prices, dividends and sustainability of our operations. |
| Employees | The implementation of Tassal's environmental management system has been a key process within which we have engaged with our employees.<br><br>Our FY2011 Sustainability Report created a catalyst for conversations for sustainability across the company and our staff were informally consulted during the development of the FY2012 report. | Tassal to use employee feedback to inform key environmental issues within the company and to act on them<br><br>To be an environmentally and socially responsible company. |

| Stakeholder group | Engagement method | Stakeholder expectations |
|---|---|---|
| Suppliers & Contractors | We share our sustainability objectives through our supplier checklist with key suppliers and we are actively building a network of sustainability minded contractors and suppliers. We also hold regular meetings with key suppliers throughout the year. | To be a profitable and sustainable local business<br>To be treated fairly and develop mutually beneficial relationships |
| Government | We regularly engage with regulatory authorities (local and state government) through our everyday business activities.<br>We actively engage in state and federal government consultation processes when invited (e.g. National Food Plan, Macquarie Harbour Marine Farm Planning amendment process and Biosecurity legislation changes) | Compliance with rules and regulations<br>Timely reporting<br>To contribute to a healthy economy |
| Non Government Organisations (NGOs) | Staff members sit on the Boards of seafood industry organisations and maintain positive working relationships with a number of national and international environmental NGOs through regular formal and informal contact.<br>A number of NGOs also provided input into the application to the Tasmanian Marine Farming Planning Authority to expand operations on the West Coast | To be active members and leaders in the seafood community in Tasmania and throughout Australia<br>To be responsible for our environmental and fish health and welfare performance- not to merely comply with the law, but to move beyond a compliance focus |
| Research organisations | Participating in research is a core part of our sustainability strategy and we regularly collaborate with national and international research organisations. | To participate in research and be open and transparent about our operations |
| Neighbours | We actively engage in a number of educational and environmental projects connecting us with local communities. We also work with the local Marine Discovery Centre and a number of high schools to improve educational outcomes for their students<br>Direct communication with our neighbours continues to occur as required. We have networks of community members and individuals with whom we regularly communicate changes in operational procedures as required. This is particularly relevant around noise issues and is appreciated by our neighbours.<br>Participating in the project titled "Establishing regional indicators of social sustainability in the Tasmanian aquaculture industry – a pilot study" gave us invaluable insight into fine scale community values around the marine environment and the social impact (positive & negative) of Salmon farming | To be responsible for our environmental and social impacts<br>Tassal to communicate plans for the future<br>Employ staff from the local community<br>Invest in and support local community initiatives<br>Contribute to a healthy economy |
| Industry | Study tour to Scotland researching community and stakeholder engagement strategies in the Scottish Salmon industry<br>Area management agreement regarding the Macquarie Harbour expansion with other Tasmanian based Salmon companies | It's important to appeal to a community's sense of place and pride<br>Highlighted the importance of industry working collaboratively |


# Research and Development

Tassal invests hundreds of thousands of dollars annually into research and development initiatives. In the past reporting year, Tassal has collaborated with researchers from CSIRO, IMAS, UTAS, and interstate and international research institutes.

Tassal's focus has been on environment and sustainability, operational efficiencies, marketing and social research.

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

- Copper remediation in sediments
- Fish health research – vaccine development
- Improved technology for wildlife exclusion
- Active remediation of sediment health
- Operational efficiency
- Market research into customer's preference for lower sodium products.

# Life Cycle Assessment

A detailed 'cradle to grave' Life Cycle Assessment (LCA) of Tassal's supply chain was undertaken in the reporting year to better understand the environmental impacts of producing Tassal product and to highlight areas for improvement. LCA is a comprehensive, methodological framework that quantifies the environmental impacts that occur over the life cycle of a product.

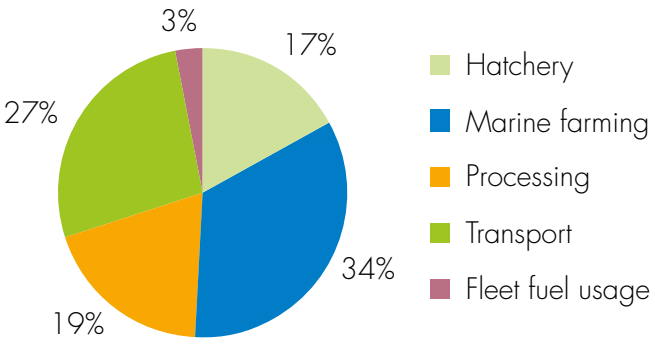
The LCA incorporated upstream and downstream impacts associated with the production of Tassal product.

Included in the LCA were greenhouse gas emissions, fuel use, water use and eutrophication potential.

## Energy

The LCA identified the following energy use:

### Contribution analysis for total Cumulative Energy Demand for Tassal's Operations FY2012 (GJ)



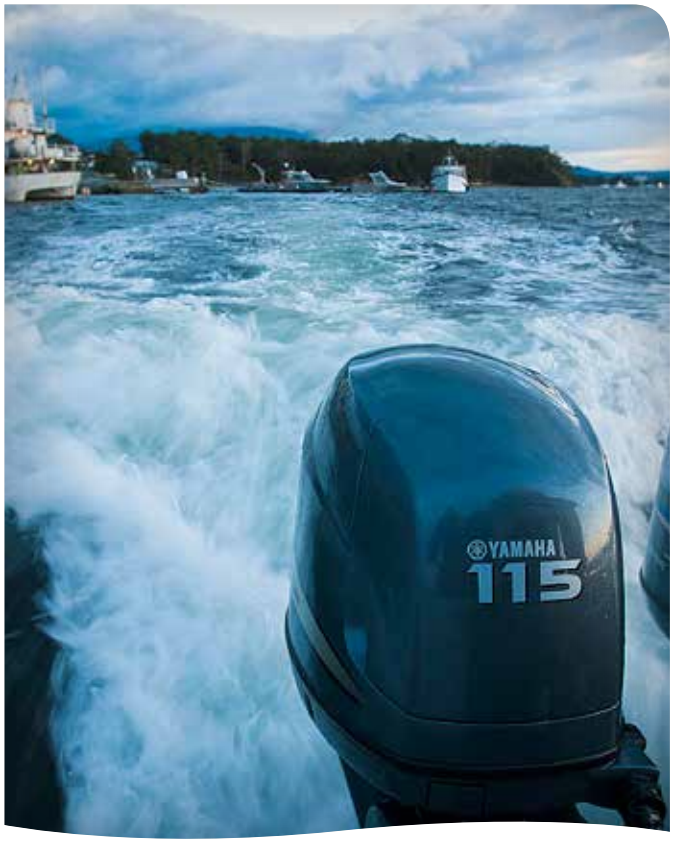

*Note: Marine farming and transport stages of production are slightly higher than for energy and hatchery and processing is lower as diesel is predominantly used, while electricity has a lower emissions intensity due to Tasmania's electricity mix (approximately 75% hydro and 5% wind).*

### Energy use FY2012

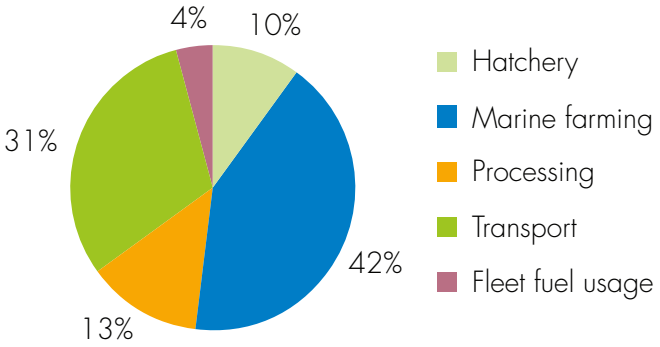
| Stage of Production | Energy Use (GJ) | Further Detail |
|---|---|---|
| Hatchery | 77126 | 90% is directly attributable to electricity use |
| Marine farming | 149529 | 73% is attributable to onsite diesel use. Petrol makes up 18% use and electricity 9% |
| Processing | 84772 | 85% is directly attributable to electricity use |
| Transport | 121935 | Transportation of feed accounts for 48% and transport to market is 44%. A disproportionate 33% is attributable to the 1% (by volume) of product sent to Northern Territory and Norther parts of QLD via plane. |
| Fleet fuel usage | 13934 | - |
| Corporate Office | 1036 | - |
| **Total** | **448332** | |

### Greenhouse Gas Emissions (Scope 1, 2 and 3 Emissions)

| Scope | Definition | Emissions by $CO_2e(t)$ | Emissions % | Source |
|---|---|---|---|---|
| 1 | All direct GHG emissions, e.g combustion of fuel in company cars or machinery | 9,038 | 38% | Onsite fuel use and fleet vehicles |
| 2 | Indirect GHG emissions from consumption of purchased electricity, heat or steam | 4,329 | 18% | Electricity |
| 3 | Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. transmission & distribution losses) not covered in Scope 2, outsourced activities, waste disposal and so on | 10,215 | 44% | • Transportation undertaken by contractors<br>• smolt sourced from Saltas<br>• GHG released in the production of inputs such as diesel fuel |
| | **Total:** | 23,582 | | |




## Contribution analysis for total Global Warming Potential for Tassal's Operations FY2012 ($CO_2e$)




## Greenhouse Gas (GHG) Emissions ($tCO_2e$) FY2012

| Stage of Production | ($tCO_2e$) |
|---|---|
| Hatchery | 2415 |
| Marine farming | 9733 |
| Processing | 3098 |
| Transport | 7332 |
| Fleet fuel usage | 972 |
| Corporate Office | 32 |
| **Total** | **23582** |

## Eutrophication Potential

For the purposes of the LCA, Tassal's nutrient input to the environment is measured in tonnes of $PO4_e$ (Phosphate Equivalent). The vast majority of these nutrients originate from the metabolic by-product from the digestion of feeds by Salmon.

In the reporting year, 1,198 tonnes of $PO4_e$ was lost to the surrounding environment, 99% of which occurred at the marine farming stage with the remaining 1% attributable to the processing and hatchery phase. The $PO4_e$ metric can be translated into nitrogen emissions. The realisation of this potential in the regions in which we farm is still to be better understood. Currently the impact of nutrient inputs is an environmental parameter that is managed through real time monitoring be near site benthic and water quality monitoring and broadscale monitoring.

We are closely regulated by the Tasmanian government with regards to our total nutrient inputs through a total permissible dissolved nitrogen output (TPDNO) level.
It is important to note that nutrients reported are distributed across six marine farming regions and are released at varying rates dependent on the size of fish, the season and farming location. The increased use of reduced protein feeds and continual improvement in feeding efficiency will result in reduced nutrient input. This is a goal for our FY2013 reporting year.

## Water Use

90% of our freshwater use is for bathing our fish at marine sites in order to combat the effects of amoebic gill disease (AGD). The water used for freshwater bathing is collected close to the mouth of the various estuaries, from dams or rivers, and once used it is returned to the same basin with very minimal change to water quality. As we are using water from very low in the catchment, we are reasonably confident that the ecosystem impact of removing this water is minimal - meaning that it is still ecologically available, however each catchment is unique and we do not want to assume that we are having zero impact.

The LCA has highlighted the need to more fully understand the impacts of withdrawing freshwater from the various catchments in which Tassal operates. To address this, we are putting additional resources into measuring our actual water consumption. We are also taking the same approach with our flow through hatcheries.

In the next 12 months, Tassal intends to implement a 'Freshwater Framework' to analyse and audit freshwater use within all operations we undertake. This framework will follow on from the LCA findings, building data and auditing procedures to see where potential savings can be made. Implementation of this framework will be a key

step towards quantifying water volumes, and ultimately reducing our freshwater use.

The freshwater framework will evaluate volume and ecological impact of:

- Reticulated water: hatcheries/processing
- Bore water: Rookwood Rd Hatchery
- Flow through hatchery water use
- MOPS use (for each point of extraction)
  - Points of water removal
  - River/stream/dam catchment name
  - Distance from waterway/bay
  - Volume removed
  - Proximity to any known conservation values

## Nutrient Recovery from Sludge and Fish Biomass

Recovering the nutrients from sludge and biomass is another way in which Tassal is minimising environmental impact and putting waste products to beneficial re-use.

By collecting the sludge from Rookwood Road Hatchery, we have avoided valuable nutrients being sent to landfill (7.1 tonnes of nitrogen and 2.6 tonnes of phosphorus). Additionally, redistributing the sludge over agricultural land has meant that farmers have reduced the need to fertilise their properties. It is estimated that farmers have saved 9.3 tonnes of urea and 19.5 tonnes of single superphosphate as a direct result of the redistribution of sludge.

A total of 8,645 tonnes of fish biomass was also recovered from various stages of the production process. Since the fish guts have a higher omega-3 content than the remainder of the fish carcass, significant volumes (446 tonnes) of this valuable oil are available for recovery. In addition to the oils, a total of 1,544 tonnes of protein was also recovered and recycled through other food production systems in the form of fishmeal and protein hydrolysate that is used as both a feed for other aquaculture species and fertiliser for farmland.

### Recovery of nutrients from biomass sent to Seafish

| Biomass | Volume (t) | t of Protein | t of Omega-3 |
|---|---|---|---|
| Heads & Frames | 2688 | 323 | 27 |
| Guts | 2918 | 642 | 298 |
| Trims | 699 | 140 | 7 |
| Skins | 90 | 18 | 1 |
| Mortalities | 2250 | 421 | 113 |
| **Total nutrients recycled** | **8645** | **1544** | **446** |

*Note: Seafish Tasmania is the only contractor in Tasmania large enough to supply re-use services for our organic waste. Seafish operates a rendering plant at Triabunna on Tasmania's SE Coast. Unfortunately this plant has had significant challenges with odour and wastewater management and has experienced regular community complaints in relation to these matters. We understand that our responsibility does not end at our company door and we are pro-actively working with Seafish to resolve these issues.*

## Where can we improve?

### Energy Use

As our marine farming stage of production carries the highest environmental burden of our operations from an energy use perspective, concentrating our efforts here will decrease our environmental impact, particularly in the reduction of diesel and other liquid fuels. Our next step will be to understand which processes and machinery used on farm account for the energy used.

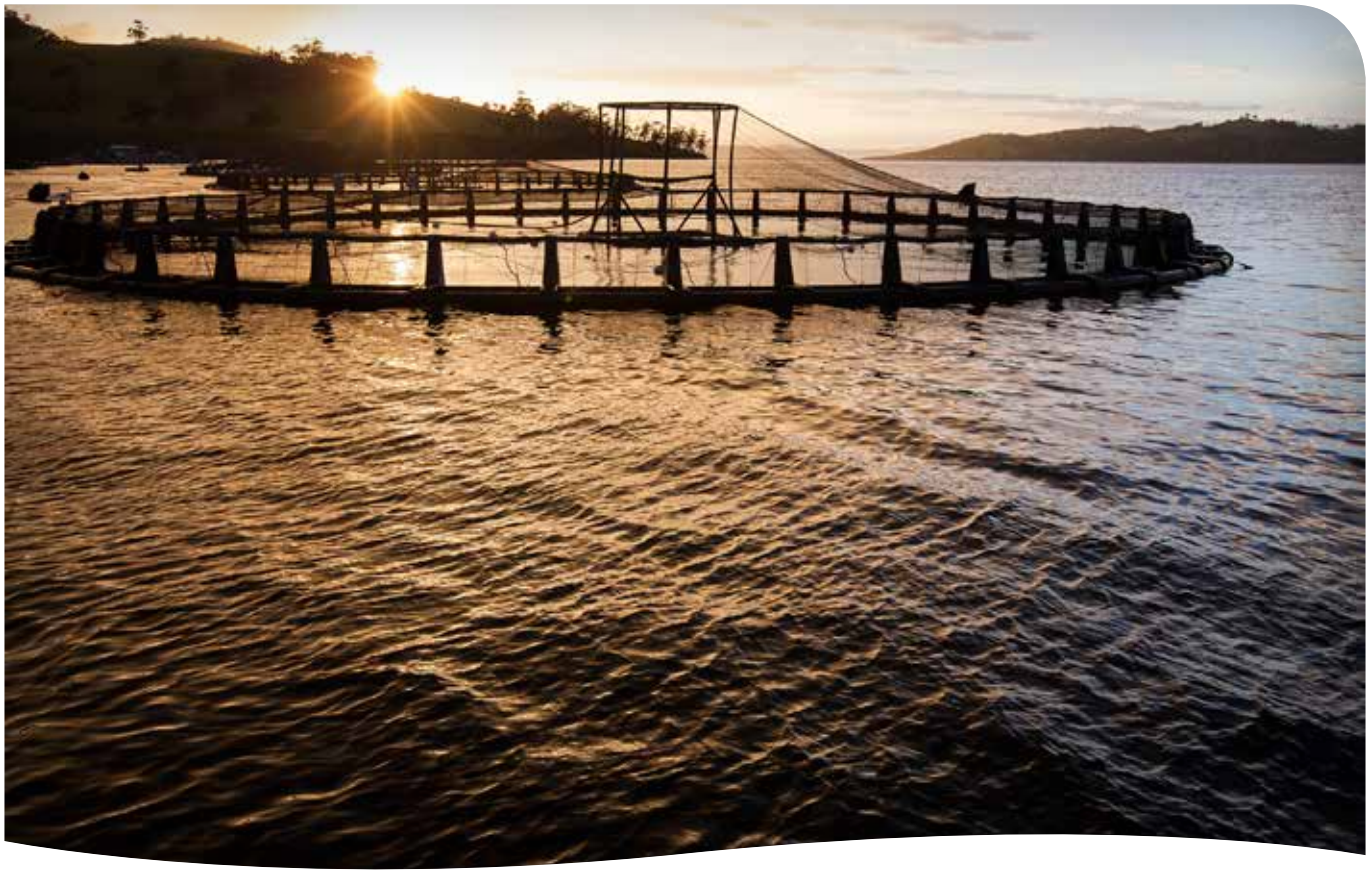
### Reduction in Nutrient Emissions

Tassal has implemented a number of initiatives to reduce nutrient emissions, including the changes to the protein content of the feeds resulting in a reduction of 401 tonnes of nitrogen lost to the marine environment compared to FY2011. Reductions in nutrient emissions also result from feeding efficiencies.

### Improve transport efficiency

The transport related impacts were also significant and worthy of attention given the potential for the associated 7,372 tonnes $CO2_e$ emitted. Even though we have already created efficiencies in transport using fishtainers, a closer look at freight logistics will also yield savings in green house gas (GHG) emissions.

Although we have already implemented a number of strategies to improve the efficiency of our logistics networks, these were not captured in the LCA due to the lack of available data, especially relating to back loading. Data collection tools and internal data collection systems will need to be modified accordingly. The decision to switch to a local major feed supplier has benefits in regards to transport related emissions.



# Environment & Biodiversity

Understanding our environmental impacts - more specifically, our ecological impacts and effects to biodiversity are a key focus for Tassal and the Tasmanian Salmon farming industry in general. Four broad categories exist for ecological impacts:

- Basic species interactions such as predation and competition
- Genetic impacts
- Disease impacts and
- Habitat alteration.

Although genetic impacts are not a material issue in Tasmanian waters, the other categories have local relevance. Managing our interaction with the marine environment and sensitive habitat, fish health management, wildlife interactions and escape fish management all serve to reduce ecological impacts and potential effects on biodiversity.

We are also using increasingly sophisticated modelling and monitoring programs to understand changes in near field and far field water quality as result of our farming operations and are investing in research in this area. Where possible, Tassal will implement a precautionary principle based on risk mitigation. If the principle is not practical or meaningful to the proposed activity, an adaptive management approach is taken.

## Our Environmental Management System

In last year's sustainability report, we committed to a third party certification of our environmental management system (EMS) as part of our goals and targets. We have not achieved this within the reporting year, and it is being reviewed.

In the reporting year, the Environment and Sustainability team began the review of Tassal's Environmental Management System (EMS) in order to prepare for third party certification to ISO14001 standard. The process of review highlighted the need to streamline the alignment of our EMS and additional eco-certifications with Tassal's Integrated Management System (TIMS) resulting in the EMS being delayed.

During this reporting period, we were also implementing Best Aquaculture Practice (BAP) Standards as well as the WWF- Australia assessment and incorporating these into TIMS. In this regard, our system priorities changed, but our commitment to third party assessment intensified.
We are recommitting to achieving this goal in FY2013.

Significant work has been invested in several of the environmental aspects highlighted in last year's sustainability report. This includes the introduction of a company-wide escape prevention and response protocol, a marine operations waste management policy, and a wildlife interaction code of best practice. These initiatives are also

directly relevant to the other third party certifications to which the company are committed.

An effective EMS not only accounts for interaction with the 'natural environment', but also the 'social environment'. It is with this in mind that we have recently introduced a noise producing equipment register into all of our noise sensitive marine farming regions. This means that all plant and equipment used on these sites is checked to ensure that it not only meets the regulatory requirements specific to the region, but highlights equipment that potentially will have an adverse impact on our neighbours. This provides a framework to mitigate noise impacts before they occur.

With the introduction of the System Team Leader roles, there is now a specified TIMS (Tassal Integrated Management System) representative on every Marine Operations site. Their responsibility lies in providing a link between the Quality Assurance, OH&S, and Environment and Sustainability departments with marine operations. System Team Leaders are also responsible for all internal compliance with TIMS requirements, including monthly OH&S inspections and weekly EMS significant aspects checklists.

## Waste and Recycling

We continue our commitment to reduce, reuse and recycle waste across all Tassal operations.

As fish waste is the most significant of our waste streams, a major focus is the successful operation of fish waste storage and collection facilities at the Tassal factories and key shore based marine operational centres, providing factory fish waste and fish farm mortalities for rendering (fish oil extraction and fish meal production). Alternatives such as composting are part of Tassal's contingency planning and broader strategy for the management of this waste.

Other significant wastes include:

- packaging wastes (soft plastics, polystyrene, cardboard and paper)
- specific marine farming wastes (metals, hard plastics, fish food contaminated bulk feed bags (polypropylene), and
- copper contaminated nets and marine organics.

## Waste Management

We return polystyrene to our supplier for recycling, along with much of the clear soft plastic used to transport the containers clean, which is recycled by a third party. We have also continued to promote cardboard and soft plastics recycling at our two value added processing factories.

Marine farm plastics, mostly medium density polyethylene, have generally ended in landfill. Some recycling of this material was successfully undertaken by Redgroup from Victoria, who undertook recycling of some feed bags and clean soft plastics on a trial basis with Tassal. However, since Redgroup has withdrawn from Tasmania, we intend to prepare and ship material to Redgroup or recyclers in Victoria, or contract this task externally.

A significant waste stream is bulk fish feed bags. We have sent a small quantity of the fish feed bags, both interstate and overseas, for recycling. Unfortunately, as the bags are impregnated with residual feed, they are difficult to recycle and opportunities for recycling are limited and cost prohibitive. Our aim is to cost effectively divert this entire waste stream to recycling. We see this as an opportunity to work with our feed supplier to solve this issue.

Our historic net cleaning waste, mostly consisting of marine organics (muscle shell and algae) contaminated with copper based antifoulant paint residue (from antifouled nets), is stored in a land based facility whilst we explore beneficial reuse options to avoid disposal. There is some hope that this material, containing micronutrients and trace elements beneficial to soil in the correct concentration, can be utilised by the agricultural sector or that the copper component can be recovered. While considerable effort has been made to achieve these ends and solutions appear to be in sight, it will be some time before one or more successful outcomes are likely to be achieved in this area.

### Waste to Landfill and Recycling

| | 2009/10 | 2010/11 | 2011/12 |
|---|---|---|---|
| Waste Stream | Weight (tonnes) | | |
| Plastic/Cardboard | 27 | 33 | 39 |
| Co-Mingled | 2.6 | 3.2 | 14 |
| Fish Waste | 6605.28 | 7486.36 | 8645.4 |
| Total Waste Recycled | 6634.88 | 7522.56 | 8698.4 |
| Total Waste Sent to Landfill (includes a proportion of fish mortalities and hard waste) | 973.47 | 1095.23 | 884.7 |
| TOTAL Waste | 7608.35 | 8617.79 | 9483.1 |

## Australian Packaging Covenant

Tassal, is a signatory to and supporter of the Australian Packaging Covenant (APC) and the principles of the Sustainable Packaging Guidelines (SPG). (www.tassal.com.au/australian-packaging-covenant.html).

## Salmon Feed

Tassal is committed to the responsible use of the world's resources. As feed is one of our primary inputs into the production process, we have worked with our major feed suppliers to reduce our forage fish meal input and increase protein from other sources. This is in direct response to stakeholder requests as well as being aligned with best practice certifications. It is our aim to be a net fish producer (i.e. produce more fish per kilogram than we utilise in the production process). Suitable replacement diets have been formulated and continue to be formulated to include protein meal sourced from land based animal processing by products.

As identified in our previous sustainability report, the use of fish meal and fish oil from forage fisheries is considered to be one of the key sustainability issues facing the global Salmon farming industry and a key material issue for our stakeholders. As such, Tassal is working with our feed producer, Skretting Australia, to find high quality substitutes that will enable us to reduce our reliance on these finite natural resources. Our collaboration has identified a number of alternatives that meet the specific needs of our fish and the environmental conditions in which they are farmed. One ingredient that is suitable for a carnivorous species such as Salmon is chicken meal.

Chicken meal produced from the processing of chicken by-product has been identified as having a similar nutritional value to fishmeal. The chicken based ingredients used in Tassal feeds meet the highest food safety standards as a result of strict controls in place throughout the supply chain.

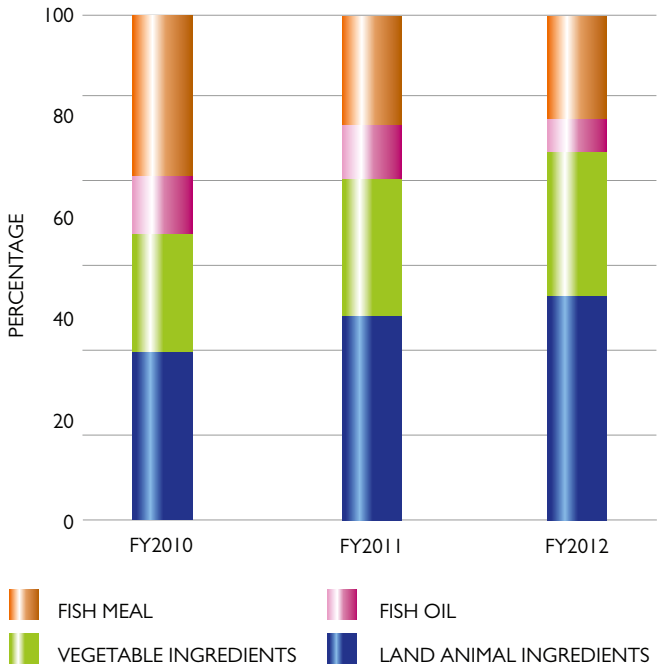

*Caption: Fish meal (top left) and chicken meal (top right) combined with vegetable ingredients to produce a sustainable feed solution*

Land based animal products used in our meal are sourced in Australia from facilities that are either AQIS export accredited, or independently quality certified. These raw materials are then further refined in accordance with the Australian Standards for the Hygienic Rendering of Animal Products AS. Once the chicken meal reaches the feed mill, it is then stored and processed using procedures that are in accordance with ISO 9001:2008, HACCP and FeedSafe requirements.

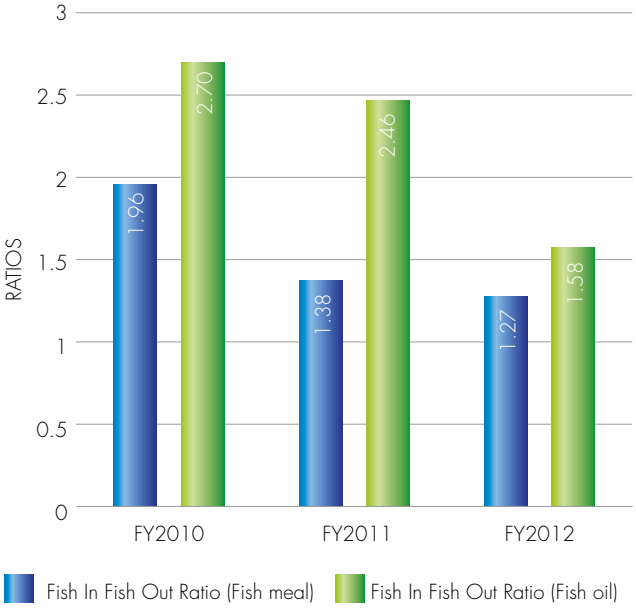
The source and quality of the raw materials as well as the feeds is further assured through the use of Nutrace™, Skretting's unique food-to-feed quality program. Nutrace™ safeguards the quality of products through certified quality, ingredient and supplier assessment, monitoring and control, risk management and traceability from raw ingredients through to the finished product (Salmon feed).

The utilization of these materials has improved the sustainability of Tassal feeds by reducing our reliance on precious marine resources. This is demonstrated by the continued improvement in the fish in: fish out (FIFO) ratio of our feeds. It also strengthens the Australian food system and enhances global food security by transforming by-products sourced from Australian farms into nutritious salmon which will go directly to human consumption. Such an integrated approach is vital if Australia is to meet the goal set by the National Food Plan to create a sustainable, globally competitive, resilient food supply that supports access to nutritious and affordable food. (Department of Agriculture, Forestry and Fisheries, 2012 <www.daff.gov.au/nationalfoodplan/national-food-plan>)

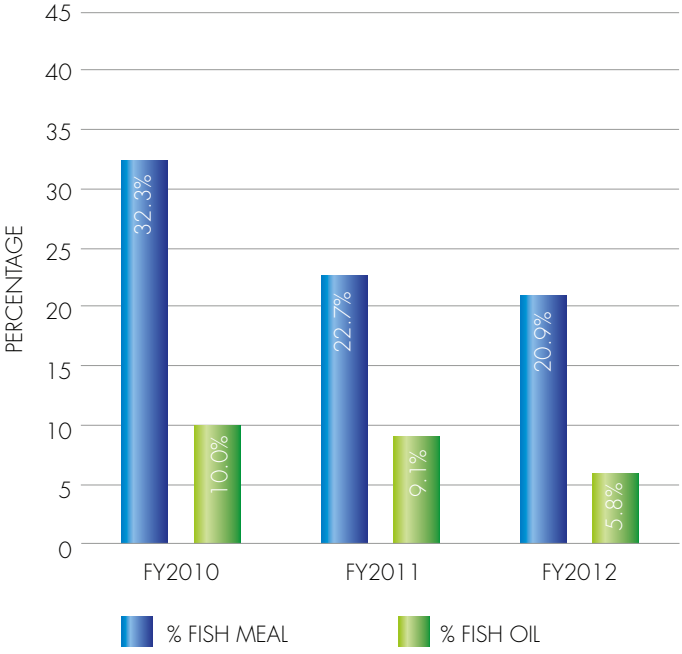
## Raw Materials in Tassal Salmon Feed




## Fish In : Fish Out Ratio

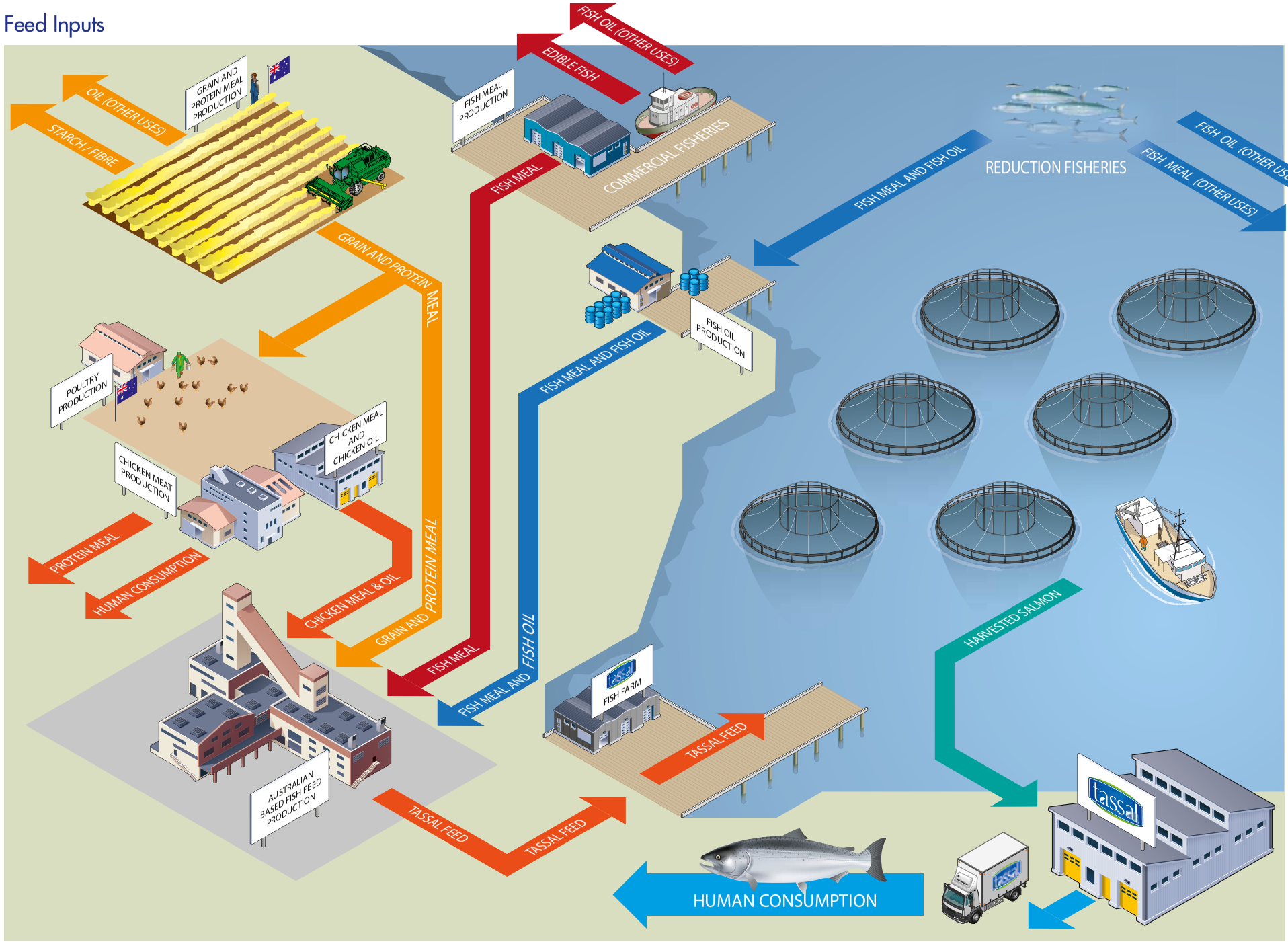



## Fish meal and fish oil levels in feed




*At Tassal, we are conscious of the valuable natural resources required to produce Australian terrestrial protein, e.g. water, arable land and fuel. By working with other Australian farmers, we can extract even greater value from these resources*

## Feed Inputs


GRAIN AND PROTEIN MEAL PRODUCTION
OIL (OTHER USES)
STARCH / FIBRE
GRAIN AND PROTEIN MEAL
FISH MEAL PRODUCTION
FISH OIL (OTHER USES)
EDIBLE FISH
COMMERCIAL FISHERIES
FISH MEAL
REDUCTION FISHERIES
FISH MEAL AND FISH OIL
FISH OIL (OTHER USES)
FISH MEAL (OTHER USES)
FISH OIL PRODUCTION
POULTRY PRODUCTION
CHICKEN MEAL AND CHICKEN OIL
CHICKEN MEAT PRODUCTION
PROTEIN MEAL
HUMAN CONSUMPTION
CHICKEN MEAL & OIL
GRAIN AND PROTEIN MEAL
FISH MEAL
FISH MEAL AND FISH OIL
FISH MEAL AND FISH OIL
HARVESTED SALMON
FISH FARM
TASSAL FEED
AUSTRALIAN BASED FISH FEED PRODUCTION
TASSAL FEED
TASSAL FEED
HUMAN CONSUMPTION

# Benthic & Water Quality Management


## Broad Scale Environmental Monitoring Program

| | | |
|---|---|---|
| Water Quality | Nutrients | • Total Nitrogen<br>• Total Phosphorous<br>• Ammonia<br>• Phosphate<br>• Silicate |
| | Integrated Depth Samples (top 14m of water column) | • Plankton type<br>• Plankton abundance<br>• Total Phosphorous<br>• Ammonia<br>• Phosphate<br>• Silicate |
| | Physical Measurements | • Salinity<br>• Dissolved oxygen<br>• pH<br>• Temperature |
| Sediment Health | Sediment samples (grabs) - fauna | • Benthic invertebrate abundance<br>• Benthic invertebrate type |
| | Sediment samples (cores) | • Redox potential<br>• Sulphides<br>• Visual analysis<br>• Particle size analysis<br>• Stable isotopes |

Nutrient input from marine farming operations has the potential to impact local ecosystems and is a material environmental aspect for Tassal. Understanding and conserving local natural habitat, local biodiversity and ecosystems is an important sustainability objective and is addressed in a number of ways. As reported in Tassal's 2011 Sustainability Report, Tassal continues to participate in the Tasmanian Broadscale Environmental Management Program (BEMP) for the Huon and Channel Marine Farming areas.

The BEMP is aimed at assessing water quality and sediment health at a number of sites neighbouring finfish marine farms in the D'Entrecasteaux Channel and Huon Estuary. The monitoring programme was triggered by the recommendations of previous studies undertaken in these waters by the CSIRO which investigated the cumulative effects on the aquatic environment and associated issues with finfish aquaculture operations.

The monitoring program has a water quality component (surface and bottom water) and a sediment component (sediment biology and chemistry). Sampling occurs every two weeks in summer and monthly over winter. Tassal's Quality department undertakes daily water sampling for phytoplankton, dissolved oxygen and water temperature at each lease on a daily basis.

A total of 15 sites are included in the monitoring program - monitoring sites 1-9 are located within the D'Entrecasteaux Channel, Sites 10-14 in the Huon River MFDF and the control site 15 is located in Recherche Bay. The sampling covers the entire extent of the D'Entrecasteaux Channel from North West Bay to south of Partridge Island, and the Huon Estuary.

The Broad Scale Environmental Monitoring Program (BEMP) takes water samples every two weeks during summer and monthly during winter. Benthic and water quality management continue to be a priority for Tassal. This is demonstrated by our excellent compliance record across our marine sites.

| | FY2010 | FY2011 | FY2012 |
|---|---|---|---|
| Number of ROV Dives | 87 | 90 | 114 |
| Number in Compliance | 87 | 90 | 114 |
| % Compliance | 100 | 100 | 100 |

*Note: The increase in ROV dives between FY2011 and FY2012 is due to the scheduling of dives which are weather dependent.*

As a minimum, Tassal undertakes an annual ROV (remotely operated vehicle) survey on the sediments beneath every active marine lease to provide a visual analysis and interpretation of the site. As part of our compliance regime, species richness and diversity of marine flora and fauna is

recorded in and around marine leases and then submitted to the Marine Farming Branch for auditing.

Tassal also conducts pre-stocking ROV surveys at smolt sites to determine the approach to best manage the fish and environment. Results of these surveys are analysed along with historical feed data and specific site characterisation data to best manage sites on an individual basis.

As part of our continual improvement approach to environmental performance, Tassal is actively involved in several collaborative research projects studying recovery rates of sediments after organic enrichment.
These collaborative projects are being undertaken with the Institute of Marine & Antarctic Studies (IMAS) and the Marine Farming Branch of the Department of Primary Industries, Parks, Water and Environment (DPIPWE).
Tassal staff has also assisted with numerous CSIRO sensor deployments testing state of the art monitoring equipment within our leases.

This type of work adds to our understanding of how our sites behave during different seasons. Nutrients, algae, dissolved oxygen, salinity and a range of other important parameters that influence both fish performance and environmental management are constantly being monitored in and around our leases by both collaborative and internal monitoring programs.

The baseline surveys that Tassal have undertaken cover a broad range of environmental aspects and analyses that include in lease, out of lease and control sampling positions.

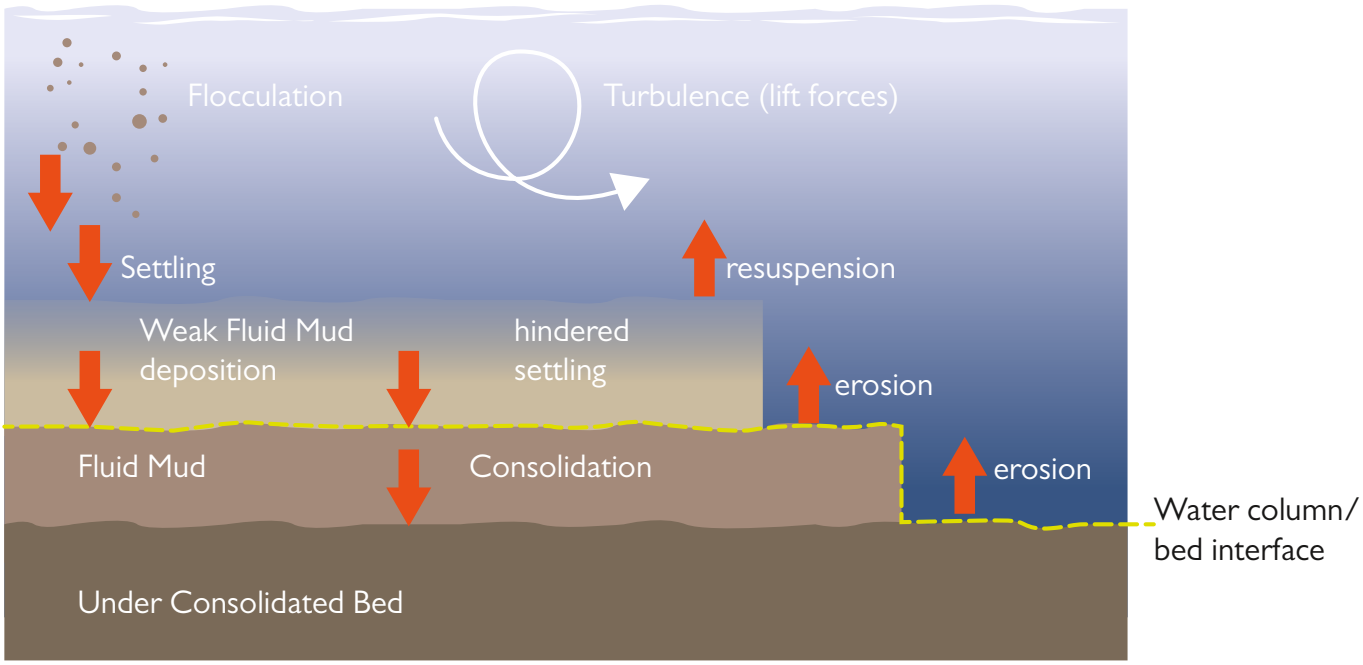
This baseline data is used as a comparison for the annual compliance surveys which provides the basis for an active interpretation of how the environment was before and after farming activity. The State Marine Farming branch can then track the potential impacts that our farming operations may have on the marine environment over time.

Tassal continues to collect flow data from around our leases and areas that influence our growing areas. This data is an important factor in the performance of fish and differ considerably between seasons, lunar cycles and on an annual basis.

## Ecological Modelling

As part of our expansion in Macquarie Harbour we have undertaken extensive ecological modelling of the harbour. Our modelling provides a scientific basis to consider and manage the environment in which we farm our Salmon and provides a means to prevent significant and adverse change to the ecology of the harbour. The modelling assists in the identification of harbour wide parameters for monitoring and for which 'trigger' values and/or targets may be defined. The parameters taken into account are:

- Hydrodynamics, including how phosphorus, nitrogen, nitrate, carbon, oxygen and ammonia are distributed around the harbour
- Substrate quality, including benthic ecology
- Ecological, including the distribution of macrophytes and vertebrates (with special attention to species of concern).



A new study involving the University of Tasmania, will provide key ecological data on the capacity of sediments to process organic matter and nutrients and the influence on bottom waters, particularly in response to increased loads associated with expanded farming. Additionally, we are collecting all baseline data needed to support modelling in our South East Region.

Tassal also continues to invest in ecological model development to better understand the impacts that our operations may have on water quality. Tassal in cooperation with the two other Salmon farming companies in Macquarie Harbour is using an operational, predictive model to understand and manage impacts on the ecology of the area.

The model predicts dispersion and effects of fish farm nutrient emissions and is used to simulate the dispersion of finfish wastes through the water column and the settling characteristics on the harbour seabed.

The model also has an ecological component and a number of key water quality parameters have been selected in order to assess the potential ecological impacts to the environment due to marine farming.

## Wildlife Management

Reflecting the importance of responsibly managing our wildlife interactions, we will hire an extra wildlife management officer in the next reporting year. This role will complement our existing senior wildlife management officer and casual staff positions, and ensure responsible wildlife management.

Wildlife management has also been incorporated into Tassal's Integrated Management System (TIMS), and the addition in FY2012 of Systems Team Leaders in all farming regions will also assist in managing wildlife interactions at our sites.

## Seal Interactions

Seal interactions continue to be a major challenge for Tassal. The number of Australian and New Zealand fur seals breaching our pens have continued to rise, with up to six seals in a pen at one time, (the average is two seals in any one pen, approximately once every two weeks).

| | FY2010 | FY2011 | FY2012 |
|---|---|---|---|
| Relocation events | 356 | 183 | 29 |
| Euthanised | 0 | 8 | 3 |
| Accidental death (relocation) | 2 | 3 | 1 |
| Accidental death (entanglement) | 3 | 1 | 5 |

The number of seal relocations was significantly reduced this year due to our improved exclusion process. However, increased numbers of seals has meant that the number of entanglements has increased. We have noted that the non-antifouled nets now in use are much easier for seals to chew through and enter the pens.

In August 2011, as part of our agreement with WWF-Australia, we committed to cease the euthanasia of seals. The humane destruction of three seals in FY2012 occurred before this agreement was made and during the peak season for seal interactions with farms. In the reporting year, this agreement has been put to the test with one seal displaying particularly aggressive behaviour. Seasoned farm staff were visibly shaken by a number of incidents with this seal. We remain committed to the use of passive seal deterrents and take our responsibility for the safety of our employees very seriously. We actively worked with DPIPWE's Wildlife Management Branch, our safety staff and WWF-Australia to assess and manage the situation, and after a number of relocations, this individual seal has not yet returned to the farm.

This year, Tassal secured funding from FRDC (Fisheries Research and Development Corporation) to trial a new net design - the KikkoNet. The KikkoNet consists of a semi-rigid net system made from polyester monofilament. Since the installation of the two trial Kikko Nets in February 2012, Tassal has experienced zero seal breaches and no entanglements at the trial sites. As an added bonus, a 60% reduction in in-situ washing frequency has also been documented. Being able to manage these two facets of our operations goes a long way to producing the healthiest, most sustainable Salmon we can.

Tassal is hopeful that this technology will significantly assist in excluding seals from our farms and we have been extremely pleased so far with the overall performance if the first two KikkoNets. We have committed to implement a further 48 of the nets in FY2013.

In last year's sustainability report, we committed to report on the results of a review of the state of knowledge of seal populations as well as an ecological risk assessment for seals in Tasmania. Initial work with the research agency was slower than anticipated, resulting in delayed progress. We are, however, pleased to say that these reports are virtually complete and we will report on the outcomes in the next reporting year.

## Bird Interactions

Birds are attracted to our pens because of the movement of fish in the water as well as the protein rich feed. The vast majority of birds interacting with our marine farms are silver gulls (common seagulls), with a small number of native pacific gulls and the self introduced kelp gulls (originating from New Zealand).

All of our pens are completely covered by bird mesh which is supported by a central structure known as a bird stand. Birds commonly enter the pens through holes in the netting and become entrapped. As long as the entrapped birds have a place to perch, they generally survive, however, some do not. In March 2012, we began a rigorous program of monitoring bird mesh and repairing holes which has been audited monthly by our wildlife management team.

| Region | Accidental death | Alive and released |
|---|---|---|
| North West Bay | 4 | 92 |
| Bruny | 4 | 139 |
| Great Taylors Bay/Huon | 4 | 58 |
| Dover | 17 | 168 |
| Tasman Peninsula | 1 | 16 |
| Macquarie Harbour | 2 | 48 |

*Note: Bird data pertains to 1st April 2012 to 30th June 2012 only*

In the reporting year, we also implemented the 'Tassal Code of Best Practice: Waterbirds and Birds of Prey' comprehensive best practice protocols. These protocols concentrate on mitigating our interaction with birds by reducing opportunity for ingress and minimising time spent within the pen if birds do become trapped. We have also sought expert advice from Birdlife Tasmania to provide guidance to our staff in the best way to remove trapped birds from the pens as well as other bird welfare issues associated with entrapment.

Late in 2011, we were contacted by the RSPCA after a complaint was made regarding birds trapped in our sea cages. No formal infringement was incurred and we immediately worked with the RSPCA and bird welfare experts in order to rectify the situation. Implementation of the bird interaction protocols came soon after.

Of particular concern is the observed (silver and kelp) gull flock behaviour on the farms. The birds are working as a mob to weigh down the bird netting to water level using the weight of the flock and then taking turns feeding on feed pellets. The concentration of guano around our pens resulting from this behaviour has fish health management implications. We are in the initial phases of collaborating with researchers to support research into gull population dynamics and basic ecology of gulls in Tasmania. Some of our farming regions have installed wide bird stands which are more effective at stopping this behaviour than narrower bird stands traditionally used. We have installed these bird stands across most of our farms and expect to complete this by the end of FY2013.

## Dolphins

Unfortunately this year we had a dolphin entangled in one of our pens. This is a very sad situation and our staff were visibly shaken by the incident. The dolphin became trapped between two layers of the double walled panel surrounding the pen. Holes were found in the outer layer of the panel which were caused by oyster growth on the pens.

The dolphin entered through one of these holes and became entangled between the two panels. Immediate corrective action was taken (holes repaired and oyster growth removed) and standard operating procedures have been put in place to avoid a repeat of this kind of incident.

Additionally, a dolphin carcass was found floating in a pen underneath a bird net. There was no fish net attached to this pen as it had been removed for washing and cleaning. This site is known as a natural flotsam depositing site and as the dolphin bore no net marks, it is the opinion of staff involved that it floated into this pen before lodging under the bird net. If the dolphin was alive at the time of entanglement, it may reasonably be expected that the animal would have struggled to free itself, thus becoming marked by the netting. The bird netting was removed immediately and standard operating procedures put in place to avoid a repeat incident. In the future, if no fish nets are fitted to a pen, then bird exclusion nets are to be either removed completely or tensioned above the surface of the water.

Both incidents were promptly reported to the Wildlife Management Branch of DPIPWE.

## Net antifoulant use

As stated in our last report, our goal is to stop using antifoulants in our farming operations by the end of FY2014. We are tracking ahead of schedule to achieve this. As at 30th June 2012, we have 205 nets in the water. Of these, 70% are not antifouled.

The use of copper antifouling paints decreased significantly from 107KL in FY2011 to 30KL in FY2012, due to the increased use of in-situ net cleaning. This resulted in a decrease in the emissions of copper ions from 18.8 tonnes to 5.3 tonnes (72%) into the marine environment, which will have a significant benefit to the health of the surrounding ecosystems.

## Caring for our Country Project

Going hand in hand with our program to phase out antifouling on our nets is the control of bio-fouling. Currently there are a number of methods employed for this purpose including land based cleaning of nets, in-situ cleaning of nets and the use of antifoulant coatings. We are working to reduce our reliance on copper based antifoulant coatings to zero because of the potential for coatings to cause adverse effects on local marine ecosystems.

The increase in the use and technology associated with in-situ net cleaning may hold the key to the sustainable (economic and environmental) management of bio-fouling within the industry. Firstly however, we need to understand marine fouling settlement on nets and develop best practice guidelines for its removal.

Tassal is participating in a three year Commonwealth Government funded study to assess the impact of in-situ net cleaning and the effect on water quality and sediments. The process of cleaning the net in-situ results in fouling organisms and particulates being released into the water column. This project is assessing the effect of this on water quality and sediments.

A methodology has been developed to identify types of fouling organisms on selected net types on a monthly and seasonal basis. This will assist us to understand the changes in fouling organisms throughout the year allowing seasonal adaptation of in-situ net-cleaning methods to maximise efficacy.

Best Practice Guidelines developed from this study will aim to make in-situ cleaning more effective and efficient by better understanding the settlement of marine fouling organisms and improve water quality by reducing nutrient and sediment release.

# Freshwater Operations

## Russell Falls/Karanja Hatcheries

Tassal has two freshwater operations near Westerway in the upper Derwent Valley: a hatchery at Russell Falls and a fish holding facility at Karanja. The Russell Falls hatchery is an older flow through system, drawing water from the Tyenna River. Water is treated in a small settling pond, inline prior to the river discharge. Karanja is also an older flow through system on the banks of the Tyenna River, however the water is not pumped but fed by a hydraulic head of a few metres. The holding system consists of two large (approximately 170 x 15 metre) channels cut into the ground, both feeding into one settling pond before discharging back into the Tyenna River.

The Russell Falls hatchery has the capacity to produce 1.65 million smolts per annum equating to approximately 180 tonnes (~980,000 smolts FY2012). The hatchery can also hold 80 tonnes of broodstock at any one time. The entire system at Russell Falls can hold 2440 kilolitres of freshwater, while Karanja can hold approximately 7000 kilolitres of freshwater.

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

Both Russell Falls and Karanja are governed by a Fish Farm Licence (FFL) and an Environmental Protection Notice (EPN). Rookwood Road Hatchery and Russell Falls (including Karanja) facilities have 57 and 40 (respectively) conditions with which they must comply, covering record keeping, quarantine, sourcing of stock, fish health, and production levels and returns.

The EPN is issued by the Derwent Valley Council, covering both Russell Falls and Karanja operations. It forms the requirements for the water monitoring program for Russell Falls and Karanja and outlines sampling frequency, parameters to be tested, sample locations, and reporting obligations.

## Rookwood Rd Hatchery

The newly constructed hatchery at Ranelagh, near Huonville approximately 30 km south of Hobart, was officially commissioned in early 2010. The hatchery is a modern system, employing complete reuse of all waste water generated by hatchery operations.

96-98% of the water is cleaned and reused in the hatchery. The remaining water is used for irrigation on local farming properties. No water is pumped to the neighbouring Huon River. There is a backup water supply from the Huon River, however the primary source of water for the hatchery is a bore sunk within the boundaries of the property. All waste water generated by the hatchery is used for beneficial reuse as irrigation water on sixteen hectares of neighbouring pasture. The hatchery has the capacity of producing 4 million smolts per annum, equating to approximately 600 tonnes (~3 million smolts FY2012). The entire system holds 8000 kilolitres of bore water.

The hatchery is governed by three pieces of legislation: a FFL, EPN, and Special Plumbing Permit (SPP):

- The FFL is issued by the Inland Fisheries Service, and contains 23 conditions covering record keeping, quarantine, sourcing of stock, fish health, and production levels and returns
- The EPN is issued by the Huon Valley Council, and covers both the hatchery site (Rookwood Rd) and the reuse water irrigation zones (North Glen Rd). It is highly prescriptive, covering general hatchery operations, water use, wastewater reuse, solid waste management, vegetation management and site construction
- The SPP is a requirement for the installation of an onsite wastewater disposal system; it is issued by the Huon Valley Council. All grey and black water produced by the hatchery is treated in an Envirocycle® system. It is then disposed of via a subsurface irrigation network adjacent to the hatchery.

# Compliance with Regulations

In the reporting year, we achieved 98% compliance at Rookwood Road Hatchery and 100% compliance at Russell Falls and Karanja. Tassal, once again achieved excellent compliance with regulations across our Marine Operations:

We had one notifiable incident reported to the EPA, which was due to a bund overflow at the Dover Factory Wastewater treatment facility resulting from a high rainfall event. Approvals for an upgrade to this facility have been made with construction due to begin in FY2013.

| Year | Compliance |
|---|---|
| FY2012 | 99.3%* |
| FY2011 | 99.8% |
| FY2010 | 99.9% |

**In FY2012, we refined our compliance reporting to distinguish between infringement notices for which we incurred a monetary penalty and letters received from DPIPWE advising us of breaches of management controls with required remedial actions. This year, across our 6 farming regions, we received 14 such letters, all of which were associated with moorings, buoys and navigational markers. FY2010, FY2011 and FY2012 compliance figures do not include these notices*

# Salmon Health and Welfare

In March 2012, we reached a major milestone in the development of our Fish Welfare Standards by recruiting our new Senior Manager of Fish Health, fish veterinarian Dr Carlos Zarza. Dr Zarza comes to us highly regarded in the international aquaculture industry and his main focus is the development of a comprehensive fish health strategy across Tassal, including the development and implementation of Tassal's Fish Health Management Plan, managing our selective breeding program and applied research, particularly in relation to Amoebic Gill Disease (AGD). Dr Zarza is looking forward to "farming the world's healthiest Salmon!"

As part of the Area Management Agreement for the expansion of operations in Macquarie Harbour, veterinarians of the three Tasmanian Salmon companies cooperatively developed the Fish Health Management Plan (FHMP) for the region. The objective of the FHMP is to ensure that diseases do not affect the long term sustainability of the farming of Salmonids in the region.

Fish health and water quality monitoring, biosecurity, smolt quality and stress mitigation are the basic pillars of our FHMP. During FY2013, FHMPs will be developed and implemented in the remainder of our regions in the SE of Tasmania.

Tassal is continuing with the implementation of our Fish Health Standards, based on the UK RSPCA Freedom Food Animal Welfare Standards for Salmon. This includes actively managing fish health and welfare during routine handling, transportation, and importantly covers our slaughter practices.

In addition, the Aquaculture Stewardship Council (ASC) standards are set to be tested on Tassal's farms in Macquarie Harbour as part of a final review in FY2013. The standards were initiated and are coordinated by WWF-International.

Tasmania is free from the majority of diseases of farmed Salmon in the Northern Hemisphere. We do not have sea lice, and not need to use antiparasitics or chemicals to treat them.

Amoebic Gill Disease (AGD) continues to be a major challenge for the Salmon industry in Tasmania. AGD is caused by the protozoan amoeba species *Neoparamoeba perurans* which naturally exists in the marine environment. The amoeba colonizes the gills of Salmon and causes respiratory distress and decreased performance in affected fish. It is not harmful to humans.

Currently, the control of AGD in Tasmania is achieved by reducing stress on our stock, continual surveillance and freshwater bathing occurring on a pen by pen basis. We don't use chemicals or antiparasitics to manage AGD.

Additionally, Tassal began participating in a selective breeding program in 2006. The goal of the program is the preferential selection of more robust fish exhibiting resistance to the attachment of the amoeba on the gills. Every year there is a little gain in reducing the impact of the AGD and the necessity for freshwater bathing.

During FY2013 we will implement an AGD management strategy. This strategy will be focused on reducing the use of freshwater by the application of new technology, and by increasing the robustness of our fish by using innovative nutritional solutions and genetic selection.

Tassal is also involved in several international AGD initiatives with other Salmon farming companies and research centres worldwide.

## Antibiotic Use

This reporting year, we have included antibiotic use in our hatcheries. As part of the FHMP, 100% of our smolts are vaccinated against the main bacterial diseases. This practice has dramatically reduced our total use of antibiotics during the last few years. Our total antibiotic use in FY2012 is less than 2% of our use in FY2009.

The use of antibiotics at our marine sites continues to decline, although there has been a slight increase in hatchery use in this reporting year. We are committed to continue applying practices to reduce the need for antibiotics and have built this into key performance indicators for relevant staff.

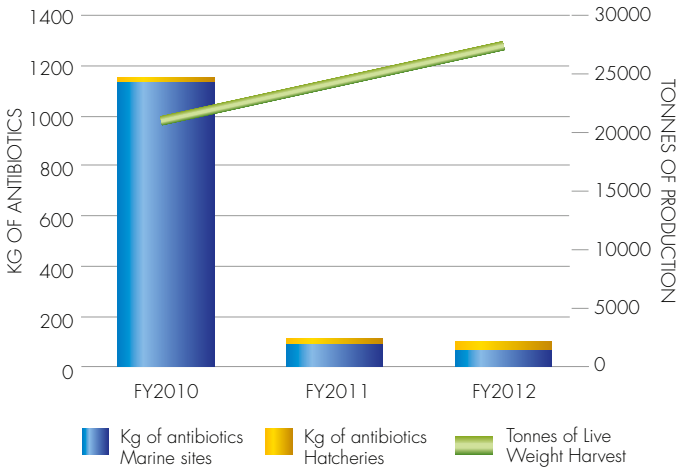
As mentioned in last year's report, any Salmon that are treated with antibiotics must go through a lengthy withdrawal period of between 90–120 days to ensure the antibiotic is cleansed from their system. Prior to harvest, any group that may have had antibiotics is tested for residues. We comply with the Australia New Zealand Food Standards Code for residue levels.

## Salmon Escapes

In FY2012, Tassal had no reportable escapes of Salmon from any of our farms. Additionally, we have developed a comprehensive Escape Prevention and Response Plan (EPRP) that has been implemented across the company and encapsulates all of our farms.

There is currently no specific Salmonid escape legislation or regulations in place in Tasmania, however, there are a number of elements in place that provide a management framework. These include licence conditions to report significant escapes and legislation preventing intentional release of fish.

### Antibiotic Use in Fish per Kilogram




| Year | Grams antibiotic used per tonne of fish produced | | |
|---|---|---|---|
| | Marine Sites | Hatcheries | Total |
| FY2010 | 55 | 1 | 56 |
| FY2011 | 4 | 1 | 5 |
| FY2012 | 3 | 1 | 4 |

# Food Safety and Quality

Tassal's Integrated Management System (TIMS) combines key aspects of quality, environment and health and safety management to establish a common approach to all of our work processes.

Each Tassal employee strives to reduce the variation in all work processes to ensure that our products continually meet food safety and quality expectations in a reliable, productive, safe and environmentally sensitive manner.

Quality auditing and certification of Tassal operations include:

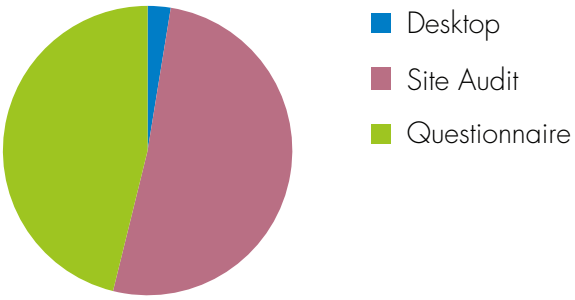

| | Auditing Body | Coverage | Main purpose | Audit Frequency |
|---|---|---|---|---|
| DAFF (formerly AQIS) | DAFF Biosecurity | Dover, Huonville, Margate<br>Harvest Boat – as catcher boat only | Export compliance | Dependant on site rating and previous audit results – between 6 and 9 months<br>All facilities currently have A rating |
| ISO 9001:2008 | Societe Generale de Surveillance (SGS) | All Tassal operations | International standard | Annual surveillance<br>3 year re certification |
| HACCP | SGS | Dover, Huonville, Margate, Marine Operations (including hatcheries) | International Standard | Annual re certification<br>6 monthly surveillance (processing sites only) |
| SQF Code (Safe Quality Food) Level 3 | SGS | Huonville<br>Margate | Customer requirement | Annual re certification |
| WQA | SGS | Huonville<br>Margate | Customer requirement | 6 monthly |
| HALAL | Halal certification body Aust. | Huonville<br>Margate<br>All products | To be able to sell product with Halal approval | Annual desk audit |
| KOSHER | Kosher Australia P/L | Dover, Huonville<br>Margate<br>(most products) | To be able to sell product with Kosher approval | Annual recertification |
| AS 4801 | Compliant to standard but not yet externally audited | Dover, Huonville, Margate, Marine Operations | Australian standard | To be decided |
| ISO 14001 | Goal to achieve certification | Marine Operations | International standard | Aiming to achieve in 2013 |
| Best Aquaculture Practices | Goal to achieve certification | Marine Operations | International standard | Aiming for phased introduction Q4 2013 |

*Note: 99% of Tassal product is produced from our Tasmanian facilities in Huonville, Margate and Dover, which hold ISO 9001:2008, HACCP, SQF Code Level 3, Woolworths QA, Coles QA and DAFF certification. The remainder of our product is produced at Port Lincoln Tuna Processor and Colonial Farms, located on mainland Australia*

## Managing our Sustainable Supply Chain

As part of our extensive supplier management program, audits are conducted as part of the approval process, including desktop, supplier questionnaire and/or physical site inspections. Approved suppliers must provide, for assessment, information on their quality and food safety, environment and sustainability, OH&S, ethical sourcing, social responsibility and labour practice policies. The frequency and type of assessment is determined according to the assessed risk profile of the supplier.

### Approved Suppliers 2011-2012




## Goodbye and Thanks to our Retiring Long Serving Employees

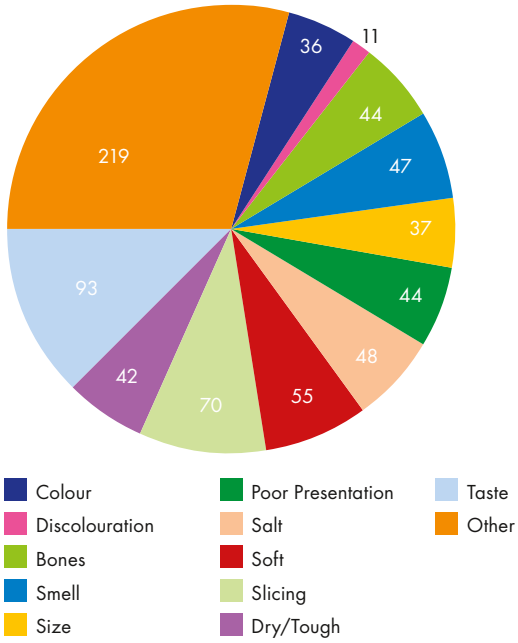
| Name | Years of Service |
|---|---|
| Marlene Meaghan | 30 |
| Wendy Marriott | 25 |
| Randall Clark | 25 |
| David Tatnell | 25 |
| Yvonne Parsons | 24 |
| Peter Twigg | 20 |
| Peter Coulson | 20 |

## Customer Satisfaction

Tassal continually seeks to improve processes to enhance our products and service to customers. During the reporting year, our customer feedback system has been upgraded to assign a severity rating to the particular issue which has resulted in more timely responses to customers and end consumers. Trends for key feedback areas are monitored and reported at quality review meetings.

Tassal received 746 instances of negative feedback, and 42 of positive feedback in FY2012.

### Customer Complaints



# Our People

We have seen vast changes throughout the 25 years of our operations. Our people, technologies, manufacturing capabilities and approach to occupational health and safety have progressively moved towards and beyond in many instances industry best practice. As one of Tasmania's largest employers, our responsibility is to ensure that we provide a safe, productive and rewarding work environment for our people. In return we have built loyal and empowered teams across our entire operations. We want to respect and be respected by our people.

Our current average turnover percentage is 9.2%, compared with data from the Australian Human Resource Institute of Australia indicating turnover rates for companies of our size sitting at an average of 19.3%. Within our industry sector the turnover rate is 20.8%. We believe this is one measure that reflects our positive employee culture.

As mentioned in the previous reporting period our objectives included a continued focus on the things that matter to business and our people. In addition to improving staff retention, we have further improved our safety culture – Our vision continues to be Zero harm - For Everyone, Everywhere. We continue to improve our average safety compliance scores and at the same time have been investing time and resources in the behavioural component of improving safety performance. An increase in females within our Senior Management group of 4% was experienced this reporting year. Our approach remains the same in that the right person is appointed to available positions with males and females having equal opportunity to secure positions and career advancement.

*We want to ensure that Tassal is the leader of people, outcomes and commercial results, which will be achieved in an ethical and sustainable way, and demonstrates that Tassal values its people.*

Our key focus areas in this reporting year were:

- Continued investment in learning and development via our 'IMPACT' program
- Better communication aligning the direction of business units to overall corporate goals
- Adequate resourcing – having the right people in the right place at the right time.

We believe that we have successfully made headway in the first two areas which can be demonstrated by an increased number of employees becoming involved in the IMPACT program.

This in itself has assisted towards achieving our communications objectives with participants having exposure to a number of members of the Strategy & Senior Management Group as part of the development program. In turn, each of the Senior Managers needs to ensure that the organisational goals and objectives are clarified for their teams. Confirmation of achievements and actions again were the focus of our annual performance reviews for salaried employees. We also performed well from a resourcing perspective, with all but 17 positions filled at the close of the reporting period.

## Zero Harm for Everyone, Everywhere

The safety performance of the business is at an unacceptable level and as a response, Tassal has in the past year developed a health and safety strategy to deliver on our commitment to achieve a workplace where we deliver zero harm. Tassal's Board has endorsed the health and safety strategy which has as its prime value Zero Harm For Everyone, Everywhere.

Tassal is committed to a safe workplace and will not compromise on resources to deliver on its target of zero harm. New positions have been put in place to support the implementation of the strategy and the Board and leadership group are firmly committed in their support. Tassal is also committed to ensure people work safely – to protect both themselves and their work mates. Tassal has introduced and implemented health and safety as part of its performance appraisal and disciplinary process to ensure that there is a safety culture embedded in our overall "can do culture" – so it is a "can do safely culture".

Tassal continues to strive for improved safety performance and is moving from a compliance based approach to Occupational Health and Safety (OH&S) to one that proactively supports the physical and emotional wellbeing of our people. While noting this shift, Tassal remains dedicated to embedding a superior safety programme throughout the business and will allocate sufficient resources to enhance both engineering and system based solutions in the workplace.

During the reporting period, we were pleased to further increase our internal OH&S compliance rating, achieved even with the expansion into our two retail shops. We are in the second year of our compliance based scorecard program and all sites have met our initial target of 90%.

During the reporting period is it disappointing to note that we did not achieve an improvement in our Average Time Lost Rate (ATLR). Although the number of injuries decreased, the severity of injuries increased and significant work has focused on better understanding why this occurred so that appropriate action plans are put in place.

Safety is a key aspect of our IMPACT Leadership program this year and into the future, which has included 32 employees across all of our sites. In addition to our IMPACT program eight members of the Tassal team also commenced their Certificate IV in OH&S – three of these eight being functional Heads of departments covering farming, processing & Human Resources. Our dedicated induction training coordinator has now been in place for over 12 months which has contributed positively to our safety strategy.

During the reporting period one Section 38 Notice was issued by Workplace Standards Tasmania. This issue related to a compressor incident at our Tasman farm site. An investigation after the incident showed that appropriate risk assessment documentation was not completed and appropriate design standards were not applied when modifying equipment for noise reduction. This issue was immediately corrected by Tassal to ensure future compliance.

### Safety Management Snapshot

| Activity | Details |
|---|---|
| Employee Safety Representative (ESR) | • At each Tassal location |
| Required number of trained fire wardens and first aid officers | • At each Tassal location |
| Injury Management Coordinator | • Covering the entire company |
| Safety Committees (employee and management representatives) – address health and safety inspections, audits and accident investigations | • Huonville, Margate and Dover processing plants<br>• Tasman, North West Bay (NWB), Bruny, Dover, Huon and Macquarie Harbour marine operations<br>• Rookwood Road and Russell Falls Hatcheries<br>• Retail Shops, Administration and Sales |
| Formal joint management-worker health and safety committees at the facility level | • 100% of Tasmanian workforce is represented |
| Investment spend in injury prevention measures and programs (not including equipment purchase) | • $100,000 plus per annum |

## OH&S Lag Indicators

| 12 month rolling comparison | June 09 | June 10 | June 11 | June 12 | FY2012 Target | Var. From Target |
|---|---|---|---|---|---|---|
| **LTIFR (Lost Time Injury Frequency Rate)**<br>Number of LTI's / Total hours worked x 1 million hours | 18 | 10.4 | 10.39 | 5.42 | =<10 | 4.58 |
| **Incident Rate (LTI's)**<br>Number of LTI's / Number of workers x 100 | 3.6 | 2.0 | 1.7 | .85 | =<1.7 | .85 |
| **ATLR (Average Time Lost Rate) (LTI's)**<br>Number of working days lost / Number of LTI's in period | 4.9 | 3.8 | 4.8 | 5.7 | =<3 | -2.7 |

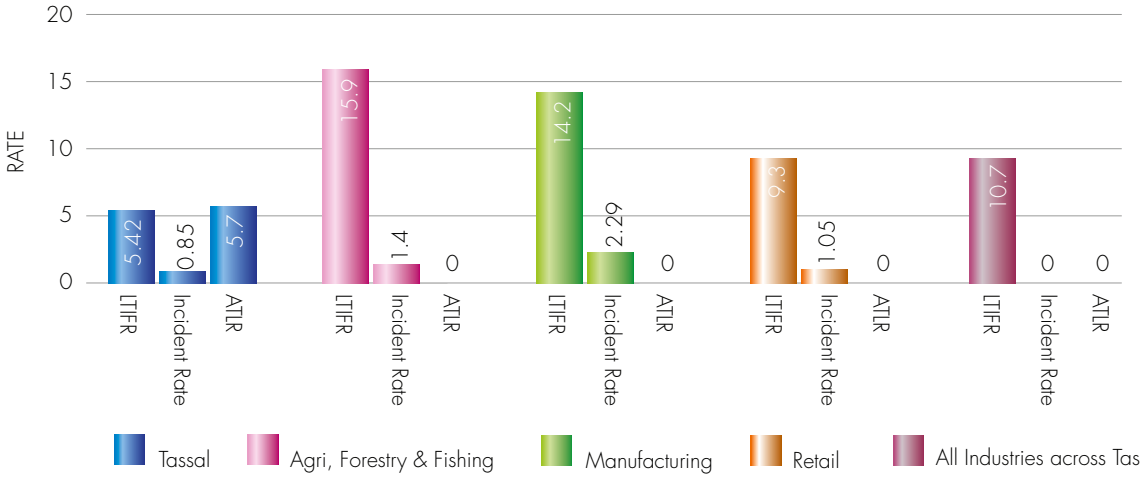
*Note:*

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

## Safety Targets for FY2013

| FY2013 Targets | All Sites |
|---|---|
| LTIFR | =<10 |
| Incident rate | =<1.7 |
| ATLR | =<3 |

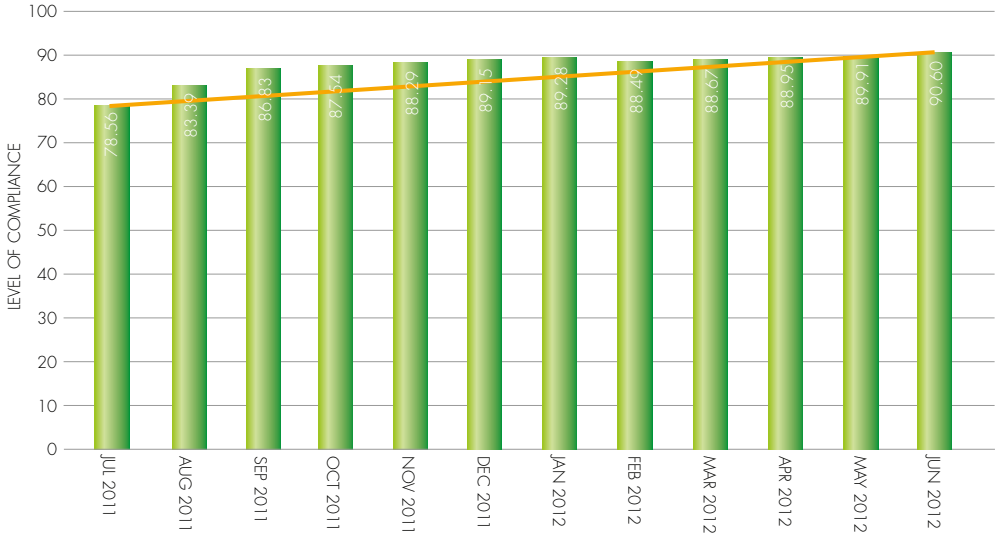
## Benchmarking Comparison




*Note:*

- *ATLR data not available at printing for all aspects other than Tassal as it is an external data service*
- *Tassal data is current for FY2012 reporting year. All other data is 2009 data provided by Work Safe Australia.*

## OH&S Compliance Trend



## Employee Terms and Conditions

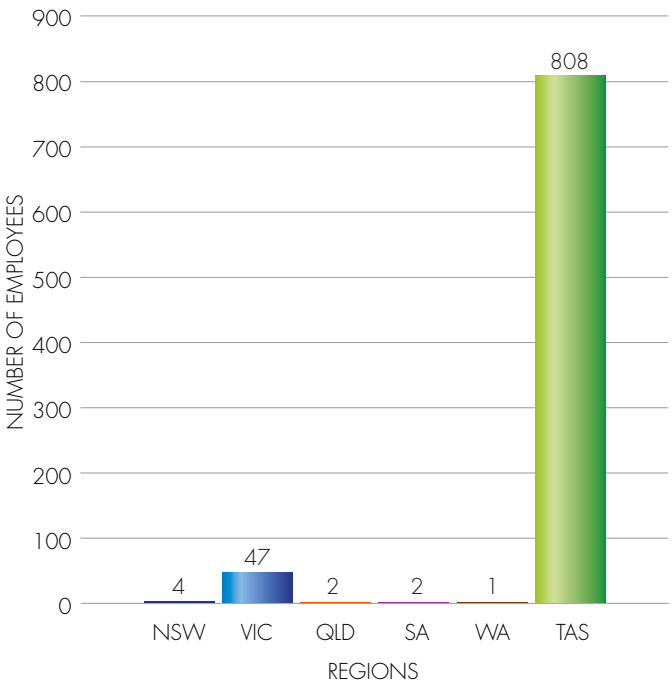
Modern awards, union negotiated agreements and common law contract cover our employment terms and conditions, and demonstrate good governance in employment practices. Employees contribute to and participate in establishing standards, such as union negotiated Workplace Partnership Agreements (WPA). WPAs include employee negotiated agreements covering items such as terms and conditions of employment, personal protective equipment, complaints mechanisms and training and education.. We want to clarify that where these documents refer to items of safety, including personal protective equipment, or forums for raising issues, there has been no negotiation. It is a right for everyone to work in a safe environment each and every day - a basic right for employment at Tassal. During the reporting period, no industrial action was taken by the union or employees.

Our extensive new employee inductions cover both corporate and site specific aspects and include an outline of Tassal's lack of tolerance for discriminatory or harassing behaviour, encouraging a culture of respect, integrity and good communication.

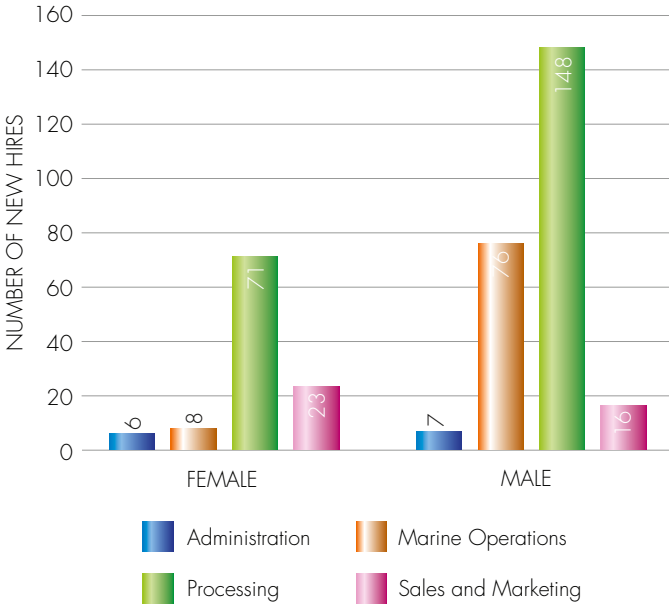
## Workforce Profile

Employee numbers have increased by 16 (8.5) % (108 (68) employees) from FY2011 to FY2012 as a result of expansion in the farming, production, corporate, and sales and marketing business areas. The number of terminations (including resignations) was 86 this year, compared with 26 last reporting year. Of the 86 for this period, 28% were females, compared with 33% in the previous year.

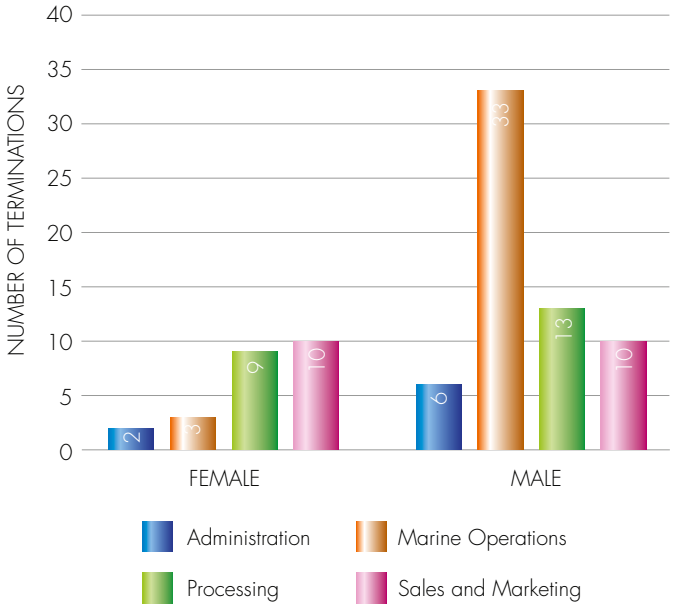
### Total Workforce by Region




### New Hires



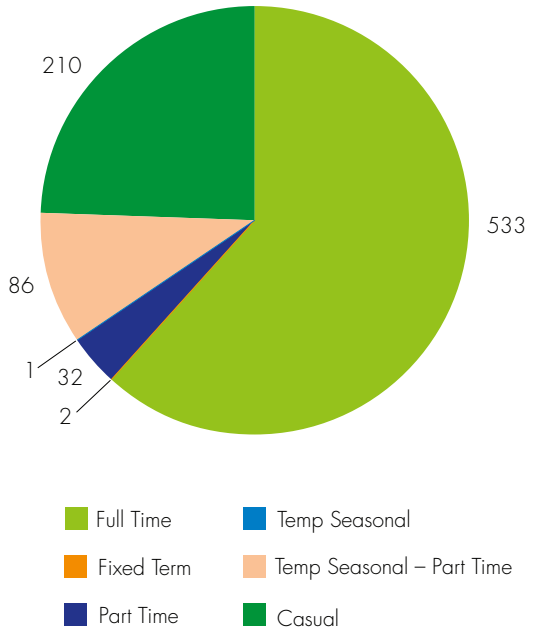

### Terminations




### Age Range of Employees

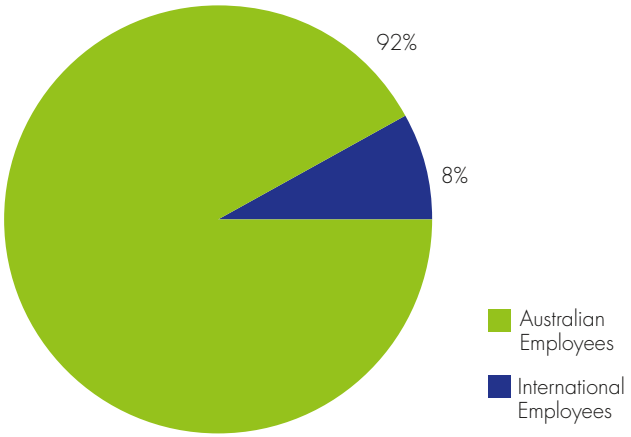
| Age Range | Female | Male |
|---|---|---|
| >50 | 62 | 99 |
| 30-50 | 121 | 314 |
| <30 | 78 | 190 |
| Totals | 261 | 603 |
| Combined Totals | 864 | |

## Workforce by Employment

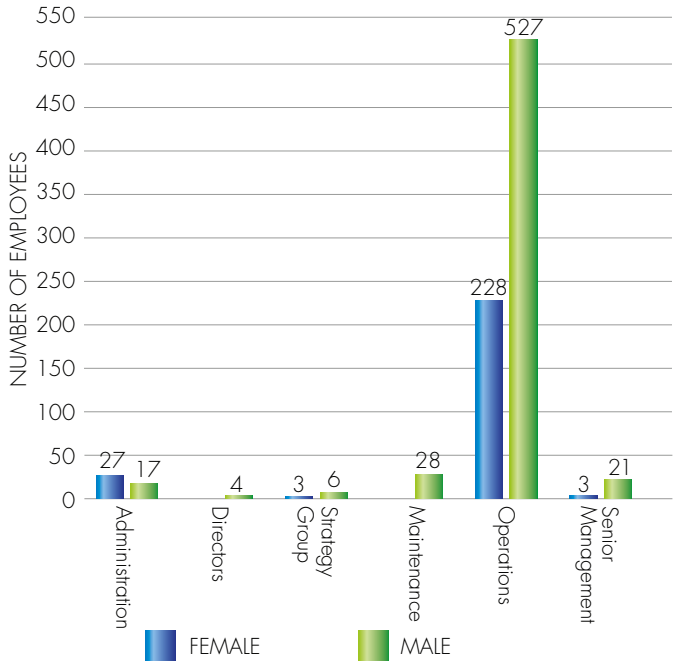



**Casual and seasonal employees comprise a significant portion of Tassal's employment base due to peak demand periods including Easter and Christmas*

## Australian and International Employees

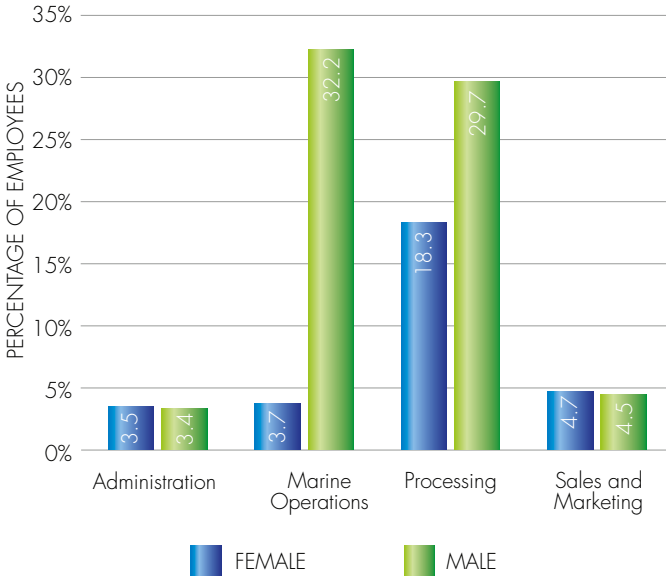



## Workforce by Category and Gender




*Note: In last year's report we included a middle management category. Employees within this category have now been included in the other categories to streamline the reporting process.*

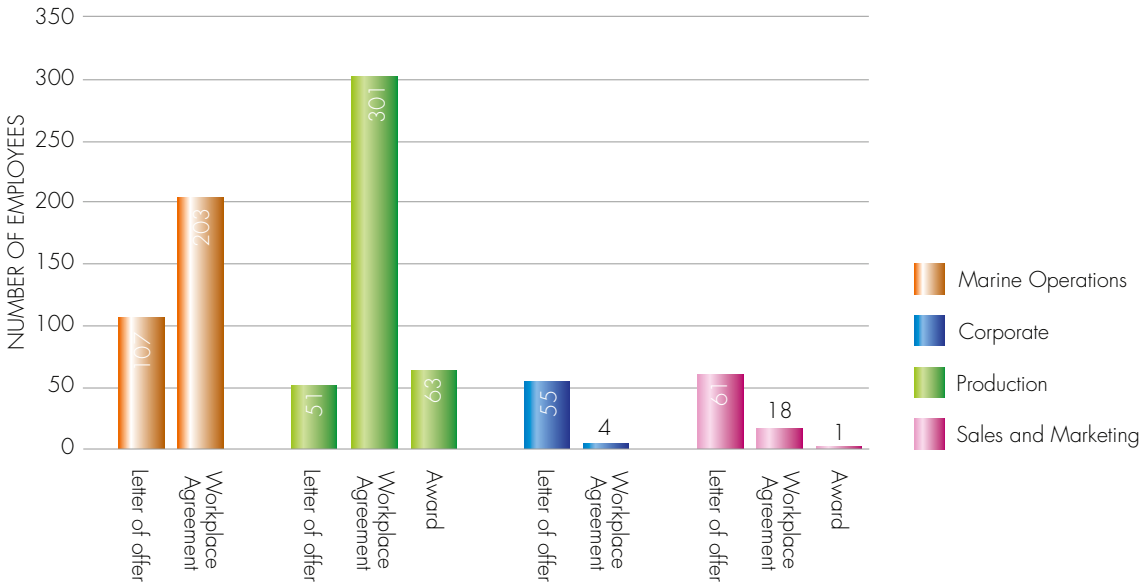
## Workforce by Department and Gender



## Employee Turnover by Age, Department and Region

| Department | <20 | 20-29 | 30-39 | 40-49 | 50-59 | >60 | Totals |
|---|---|---|---|---|---|---|---|
| Administration | | 1 | 1 | | 5 | 1 | 8 |
| Female | | 1 | | | 1 | | 2 |
| Male | | | 1 | | 4 | 1 | 6 |
| Marine Operations | 2 | 21 | 17 | 10 | 7 | 2 | 59 |
| Female | | 2 | 3 | | 1 | | 6 |
| Male | 2 | 19 | 14 | 10 | 6 | 2 | 53 |
| Processing | 7 | 85 | 46 | 17 | 13 | 5 | 173 |
| Female | 3 | 34 | 22 | 5 | 3 | 3 | 70 |
| Male | 4 | 51 | 24 | 12 | 10 | 2 | 103 |
| Sales and Marketing | 2 | 17 | 10 | 6 | 1 | 1 | 37 |
| Female | 1 | 9 | 4 | 3 | 1 | | 18 |
| Male | 1 | 8 | 6 | 3 | | 1 | 19 |
| Grand Total | 11 | 124 | 74 | 33 | 26 | 9 | 277 |

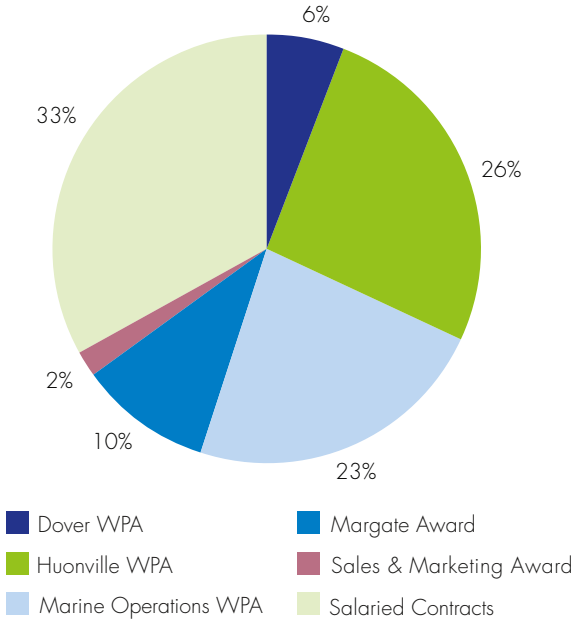
## Employment Type by Department




## Performance Management

Performance reviews vary depending on the type of employee contract in place. Skills based assessment is the norm for non-salaried employees whereas salaried employees receive an annual review. 55% of workers are employed under WPAs, 12% under award, with the remainder as salaried employees.

## Workforce by Performance Review Type



## Performance Review and Remuneration by Employee Category

| Employee Category | Performance Review Process and Remuneration |
|---|---|
| Salaried employees | • Annual performance review combined with an annual remuneration review<br>• Significant change in responsibility would trigger a review prior to the annual cycle |
| Marine Operations WPA and Huonville WPA | • A four level performance system within the WPA Level progress occurs once defined skill sets are achieved and agreed on between the employee and supervisor |
| Margate Processing – Award based | • Level system as outlined by the award<br>• Level progress occurs once defined skill sets are achieved and agreed on between the employee and supervisor |
| Dover Processing Facility | • Union negotiated agreement and common law contract |
| Sales and Marketing | • Annual performance review combined with an annual remuneration review<br>• Significant change in responsibility would trigger a review prior to the annual cycle |

## Diversity and Equal Opportunity

Tassal's diversity policy ensures that principles of diversity are considered such as flexibility of position design and equity in consideration for selection regardless of gender.

Women make up 22% of our Senior Management and Strategy Group positions, representing an increase of 4% from the last reporting year. At the Board level however, our only female Board member resigned from her position during the reporting period. Tassal does not intend to set a quota or target level for female employees as the expectation is that the long term trend for the proportion of females to males will increase steadily regardless and placements are always done on best fit for position, regardless of gender.

An annual review of our recruitment policy, recruitment and promotions procedure, and harassment, bullying and discrimination policy was conducted in the reporting year to ensure that Equal Employment Opportunity (EEO) is part of the process and that no barriers to diversity exist. Two incidents of discrimination have been lodged with the Anti-Discrimination Tribunal during the period. One was resolved and matter withdrawn and the other is under dispute by Tassal. We do not believe there are grounds for a claim in either of the cases.

Our female team members are strongly encouraged to participate in the IMPACT program which focuses on leadership and change management. We saw female participation in the program increase from 9.8% in FY2011 to 23.4% in FY2012.

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

## Employee Benefits

Our employees enjoy a range of benefits as part of our strategy to make Tassal a rewarding workplace both professionally and personally. This reporting year, in response to employee feedback, we have introduced:

- For eligible employees, cash top up salary based maternity leave of 80% for the first four weeks, 40% for the following four weeks and 20% for the remaining four weeks
- 1 week of paternity leave.

These benefits are in addition to long standing benefits such as:

- Onsite medical and physiotherapist support one day per week (located at Huonville)
- Annual flu injections
- An externally facilitated confidential Employee Assistance Program (EAP)
- Alcohol and drug education
- Redundancy payments well above the national minimum based on age and years of service.

## Our Commitment to Learning and Development

We continue to invest in our people's development through a combination of technical and competency based training. Our 'IMPACT' training program developed in conjunction with external training providers, Response, is focused on development that will drive strong leadership and innovation into future generations of teams within Tassal. We have also introduced and internal Certificate IV OH&S program and have again nominated employees to participate in external programs such as the National Seafood Industry Leadership program.

| Employee % of training by Department | | Training hours % by Department | |
|---|---|---|---|
| MOPs | 78.73% | MOPs | 73.69% |
| Processing | 17.16% | Processing | 18.94% |
| Admin | 4.10% | Admin | 7.37% |
| | 100% | | 100% |

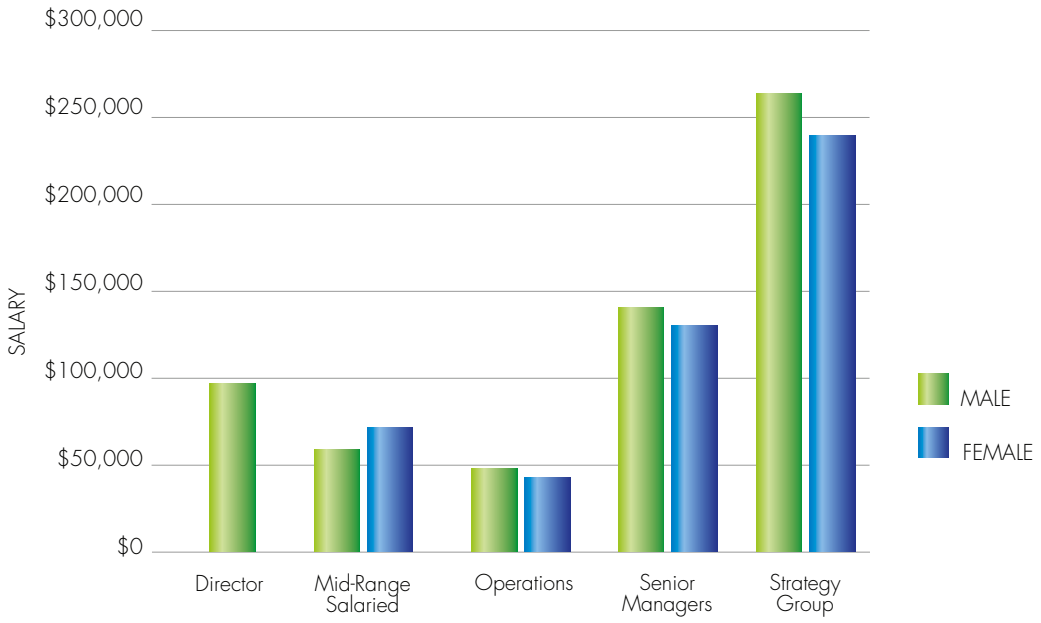
| Average training hours per employee by Department | |
|---|---|
| MOPs | 29.16 |
| Processing | 5.60 |
| Admin | 6.50 |

*Note: Training provided in the 'Admin' category also includes training provided to sales and marketing staff.*

## Equity of Pay

Remuneration is based on individual merit regardless of gender.

### Employee Salary by Category



# Celebrating 24 Years at Tassal

One of Tassal's longest serving employees, Yvonne Parsons retired in May 2012, after starting with the company in 1988.

Yvonne, like many of our longstanding employees, began her career with Tassal on the factory floor at Dover. She says that compared to our modern factory systems in operation today "the set up was very archaic requiring a high degree of manual labour". Yvonne later moved to a supervisory Quality Assurance role mixed with reception work as well as sitting on the steering committees of the OH&S and community involvement groups.

Moving north to the Huonville factory in 1998, Yvonne began work as a customer service officer in the sales & marketing department. "Customers were the number one priority from day one, and this is still the same", she said. After eight years in that role, Yvonne moved into the Human Resources team, covering reception and customer feeding as well as assisting managers within the business.

Yvonne says, "I have so many great memories spanning across my 24 years at Tassal! When I was working in a supervisory role, I really enjoyed the interaction with process attendants, although in saying that every day was memorable with each section of the business in which I worked. Attaining our ISO accreditation was quite an achievement, the long days and nights of work that we put into this was appreciated by Management. I can recall such a broad variety of customer feedback, from complaints through to compliments and it was with a great sense of pride that I was made aware that I represented a fantastic company."

*"It was with a great sense of pride that I was made aware that I represented a fantastic company."*

Commenting on the differences in Tassal from the time of starting in 1988 to retiring in 2012, Yvonne said "I think we have come a long way with our marketing strategies and we keep developing in this area. The increasing volume of production and the systems in place that support it have been a huge change. There has also been a real in focus towards the environment and sustainability aspect of the business, as well as OH&S and injury management. It's hard to believe how the culture and the

company's stance on these matters have improved. It took a long time to get there but we did it and the difference it has made is amazing."

When asked "what do you miss most about Tassal?" Yvonne has a few things on her list; "Talking to the customers, this goes back to my days in sales & marketing, it was passion talking to people, and solving problems and creating a good outcome. I miss not being there for new and exciting changes. A good example is Tassal's recent TV marketing campaign, it is a great ad, but I felt a bit flat knowing that I'm no longer part of such a great company." Above all though, and at the top of her list is missing her work mates, both new and old.

We thank Yvonne for her years of service and wish her all the very best for her retirement.

*Tassal hosting a meeting for National Landcare*

# Community Engagement

In March 2012, Tassal staff attended a conference run by the Environmental Defenders Office: 'Managing Marine Farming - Have We Achieved Best Practice?' The conference included robust question and answer sessions as well as a field trip to one of our farms. The key take-home message from this conference was stakeholder desire for greater transparency across the Salmon industry in Tasmania. Tassal is working hard to achieve greater transparency in our operations through the publication of regular sustainability reports and engaging with our local communities and other stakeholders. Unfortunately, we did not achieve our goals in the reporting year of increasing the number of community engagement events, or creating a newsletter, however, our approach to stakeholder engagement has broadened in this reporting year as we take a more structured, proactive approach to working with our community stakeholders. This has helped us better understand the challenges and opportunities that our operations bring to the community as well as enabling Tassal to create opportunities to build more robust, open and constructive relationships with our community and environmental stakeholders.

## State of the D'Entrecasteaux Channel Project

Demonstrating Tassal's commitment to working collaboratively with stakeholders, we are proud partners in the D'Entrecasteaux Channel Project (The 'Channel' project). This regional project builds on the successful collaborative model of the Derwent Estuary Program with the core group of project partners being Kingborough Council, Derwent Estuary Program, NRM South, Southern Water, Tassal Group Ltd and the Huon Valley Council.

The Channel Project will improve the availability of information relating to the D'Entrecasteaux Channel ('the 'Channel') to all stakeholders, as well as support a coordinated and collaborative approach to managing the Channel. The project will develop and share information about the Channel with stakeholders and the general public. The community is also encouraged to take part in the project by participating in upcoming local forums being undertaken by Kingborough Council and the project partners.

## Tasmanian Rural Woman of the Year 2012

In December 2011, Tassal's Community Engagement Officer, Fiona Ewing, received the Tasmanian Rural Woman of the Year award. The Rural Industries Research and Development Corporation (RIRDC) Rural Women's Award is Australia's pre-eminent award for rural women. The award identifies and supports emerging leaders and change agents who have the capability and resources to drive innovation, productivity and sustainability within primary industries, and build economic and social development within rural communities.

The award's bursary, aided by a state government contribution, enabled Fiona and a local government councillor from the West Coast to travel to Scotland

to research community engagement strategies and a Community Trust fund operating in the Scottish Salmon aquaculture industry. A significant outcome of this research trip will be the establishment of a Community Fund in Strahan which will contribute financial and 'in-kind' support to community based projects that deliver lasting change. The fundamental basis of Tassal's community engagement strategy is to support the local communities in which we operate and to assist to resolve social issues voiced in some of these communities.

## Understanding our social impact through Social Return on Investment

Our Social Return on Investment (SROI) project saw us work with RDS Partners (external consultants) to engage with a cross section of people in the Huon and Channel areas. The initial stages of this pilot project helped us to assess how our operations are viewed from a social impact perspective, based on values that the communities identified as being important to them.

The approach we took provided information about how Tassal creates social value in specific local communities and then represented this value in terms of a return to stakeholders on the investment in our production and processing activities in the Huon-Channel area.

The analysis was conducted using the Social Return on Investment (SROI) methodology, with a view to understanding how this methodology can create opportunity for meaningful engagement between the company and its local stakeholders.

Tassal will use what we have learnt from this pilot so that our strategic approach to social impact can better serve both the company and the local community.

### What we found

What was evident from the SROI was that our operations are regarded as important for the local regional economy, creating significant social value on this basis.

At the same time, from the perspective of local residents, there are negative impacts on significant issues. In particular, relationships between community and the company are marked by low levels of trust and concern regarding the impact of marine farming on the health of the ecosystem in which farming activities take place. Similarly, the project confirmed some negative impact on lifestyle amenity for those few residents that live close to the farm sites and related onshore facilities.

Importantly to us, insights gathered through this project underline a considerable community willingness to working with Tassal to build trust and a productive relationship. We share a goal with our community stakeholders to ensure a healthy ecosystem, and to strike a balance between the benefits (e.g. regional economic impact and jobs) and costs (e.g. impact on lifestyle amenity) for our local community stakeholders.

The next steps for us are to continue engaging with these communities to test and refine the results of the project and set a benchmark collaboratively with our community stakeholders for building positive social impact.

## Marine Debris

A key issue for local stakeholders is marine debris. Tassal has adopted a uniquely identifiable rope design in order to drive accountability back to our staff working at the farm level.

Much work has been undertaken this year to responsibly manage marine debris. Shoreline cleanups have been undertaken throughout the year in all regions and in response to specific community feedback. Areas of high marine debris build up has been given particular attention. In addition, we have received the message loud and clear that regular shoreline clean ups are not enough to deal with this issue. To this end, we will be developing and implementing farm level waste mitigation plans and monitoring strategies in the next reporting period. These will form part of our Environment Management System (EMS).

In contrast with the volume of marine debris collected in FY2011 (27m3), FY2012 saw 20m3 collected. 335 hours were devoted to this task this year, in contrast with 200 hours last year. Unfortunately, we are unsure if the difference in amount collected between the two years relates to decreasing amounts of rubbish on shorelines or in difficulties faced in standardising estimates of the rubbish collected. 50 % of the rubbish removed is attributable to Salmon farms.

## Complaints

Tassal's objective is to maintain the support and goodwill of neighbours surrounding our operations. Our community engagement officer manages complaints about our operations and is responsible for liaising with operational staff at our farms and factories in order to improve the experience of our neighbours.

A 'Community Complaints Database' was developed at the beginning of the reporting year so that we could more accurately report the number and types of complaints received.

| Complaint Type | Number of Complaints | Region |
|---|---|---|
| TV Interference (vessel) | 1 | Huon & Channel |
| Trucks – safety | 4 | Huon & Channel |
| Trucks – route | 2 | Huon & Channel |
| Noise - (farms) | 13 (8 from one farm site) | Tasman (3) Huon & Channel (10) |
| Noise – (factory) | 3 | Huon & Channel |
| Noise (Trucks) | 1 | Huon & Channel |
| Odour | 2 | Huon & Channel |
| Marine Debris | 2 | Tasman (1) Huon & Channel (1) |
| Total | 28 | |

We take complaints very seriously and in all instances work with the complainant and operational staff to solve issues that may arise. Complaints received about trucks involve contractors working on behalf of Tassal and we work with our contractors to address issues raised on a case by case basis.

The most common complaint we receive from our neighbours concerns noise. All of our farms are in rural or remote areas which, at times, experience extremely low levels of background noise. In still weather conditions at a few of our farms and land based facilities, some of our neighbours are negatively impacted. At locations where this has occurred, we always work with the facility involved and the complainant to mitigate the noise impact.

Dependent on each unique circumstance, actions taken may be one or all of the following;

- Developing and implementing noise protocols
- Replacing or modifying plant and equipment to lessen noise profile
- Altering operational practices (e.g. changing work schedules)
- Communicating with neighbours about activities likely to create noisy periods.

## Sponsorships

Our sponsorship and donation budget for FY2012 was $110K, however this does not capture the entirety of our charitable giving across all aspects of the business. Our sponsorship and donation strategy is to support the local communities in which we operate and also to support our employees in community based or charitable endeavours. During the reporting year, we supported numerous local community groups, organisations and activities, either by cash sponsorship, cash or product donation.

FY2012 recipients included:

- AFL Tasmania
- Channel Junior Football Club
- Kermandie Junior Football Club
- Youth Leading Youth Conference
- Dover RSL Bowls Club Junior Development
- Tasmanian Theatre Company
- Mt Lyell Picnic Day
- Hobart Aquatic Club
- Tasman Crows Football Club
- State of the D'Entrecasteaux Channel Project
- Strahan Christmas decorations committee
- Channel Football Club
- Huon Valley Little Athletics
- OZ Green
- Kettering Yacht Club
- Southern Coast Care Association of Tasmania
- Lions Club
- Channel Men's Shed
- Australian Volunteer Coastguard
- Snug Cricket Club
- Port Arthur Sports Club
- Numerous schools and charitable organisations

Tassal is apolitical and does not make donations to political parties or individuals.

### Donations as a % of Total Sponsorships and Donations

| Activity type | % of total sponsorships and donations |
|---|---|
| local sporting clubs | 53 |
| Schools and youth | 10 |
| Environmental initiatives | 6 |
| Community projects | 18 |
| Charities | 6 |
| Community based arts | 7 |

# Arctic Bear Sinking

On 20 March 2012, Tassal's back up harvest vessel the 'Arctic Bear' sank due to the failure of a pipe connection connected to the sea chest which flooded the engine room and ultimately capsized the vessel at our Dover shore base. No one was injured and no environmental harm resulted from the incident.

Although unfortunate, we are quietly proud of our staff involved in the immediate response to the incident. Their safe and efficient enactment of emergency protocols meant that the potential for environmental damage was avoided and no injuries occurred. Staff worked proactively with the local EPA, marine authorities and insurer nominated salvage crew to salvage the vessel.

No fines or infringements occurred as a result of the sinking. Risk mitigation is a continual focus at Tassal. The Arctic Bear sinking consolidated our belief that our focus and relentless pursuit of risk mitigation is fundamental to our sustainability as a responsible company.

Actions arising from the sinking include

- Arctic Bear is currently being repaired and will return to service in 2013
- A Fleet Maintenance Manager position has been created to oversee vessel maintenance and workmanship standards, and
- Implementation of improved fleet maintenance standards and procedures has occurred.

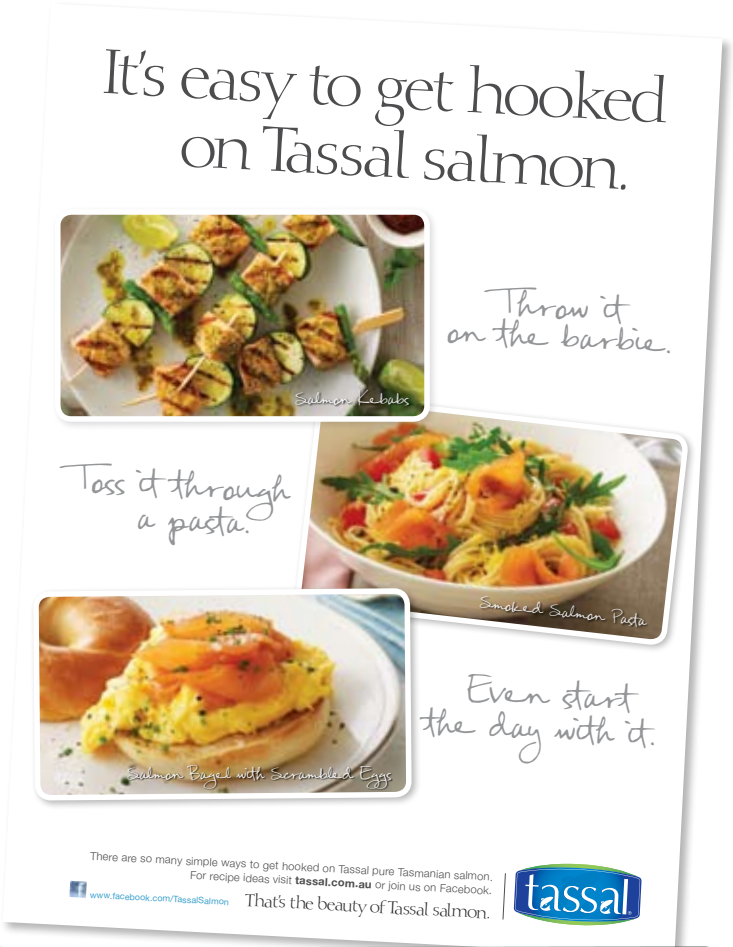
The vessel repair also played a key role in Tassal establishing a large vessel repair facility, in joint venture with a local fabricator.

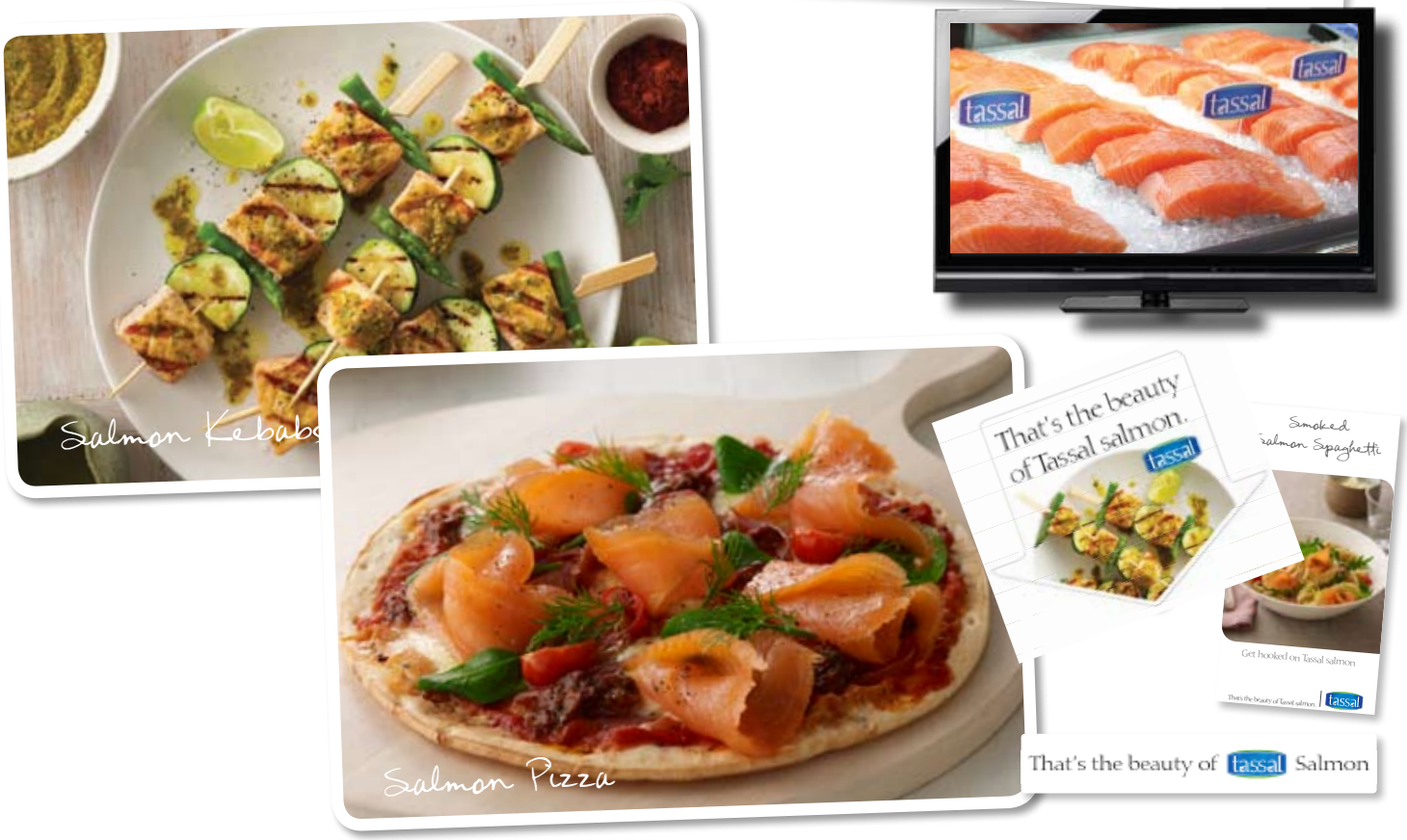
# Tassal Marketing

In 2012 Tassal will launch a new advertising campaign to encourage Australian's to eat more Tasmanian Salmon. The new advertising campaign is part of a significant marketing program focussing on increasing salmon awareness and consumption in Australia. The campaign highlights the freshness, versatility and healthiness of Tasmanian-grown Atlantic Salmon.

Salmon is an incredibly versatile product and is the perfect choice for so many meals. Research has shown that although Australians want to eat more seafood, as they understand the health benefits and great taste, they are still unsure in how to prepare and cook salmon. The new campaign is designed to communicate the endless methods that salmon can be used in cooking and show just how simple and easy that can be.

The fully integrated campaign includes television, print and online advertising as well as recipe ideas in retail outlets, social media programs and public relations.




That's the beauty of Tassal salmon. tassal

# Tassal Salmon Shops


Tassal owns two Salmon Shops based in Salamanca in Tasmania and Kew in Victoria. The shops showcase a huge range of Tassal produce from fresh, smoked, canned and frozen salmon. In addition to supplying Tassal salmon products to the public the two shops also educate consumers, in regular cooking workshops on how to prepare and cook salmon in a variety of different methods in their very own cooking studios.

The Tassal Salmon Shops also provide us with valuable market research, where we can test new products, prior to retail launch, and gain consumer insights into new and current product ranges.

Our Kew store also has its own restaurant where consumers can sit and relax whilst trying the tempting menu of salmon focussed breakfast and lunch on offer.




That's the beauty of Tassal salmon.

# Glossary

**Adaptive management**

A structured, iterative process of optimal decision making in the face of uncertainty, with an aim to reduce uncertainty over time using system monitoring

**Ammonia**

A compound of nitrogen and hydrogen with the formula $NH_3$. It is a colourless gas with a characteristic pungent odour. Ammonia contributes significantly to the nutritional needs of terrestrial organisms by serving as a precursor to food and fertilisers

**Antifoulant nets**

See copper treated nets

**AQIS**

Australian Quarantine Inspection Service

**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.

**AS4801**

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

**ASC**

Aquaculture Stewardship Council 3rd party audited world recognised environmental standard evolving from the Salmon Aquaculture Dialogues.

**ATLR**

Average time lost rate

**BAP**

Best Aquaculture Practices 3rd party audited world recognised environmental standard

**Benthic health management**

Managing the health of the seafloor beneath sea cages used in aquaculture

**Biomass**

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

**Bird interaction**

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

**Broodstock**

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

**Copper treated nets**

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

**Cradle to grave**

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

**CSIRO**

Commonwealth Scientific and Industrial Research Organisation

**Cumulative Energy Demand (CED)**

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

**Escapements**

Unintentional escaping of stock into the wider marine environment

**Eutrophication**

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

**Eutrophication potential**

The potential of nutrients to cause over fertilisation

**Fallowing**

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

**Feed Conversion Ratio (FCR)**

The mass of food eaten divided by the body mass gain

**Finfish**

Fish with fins as opposed to crustaceans or molluscs

**Fish husbandry**

The practice of breeding and raising fish

**Fish in: fish out**

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

**Fish meal**

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

**Fish oil**

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

**Forage fish**

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

**Freshwater aquaculture**

Aquaculture that occurs in a freshwater system

**Gigajoule (GJ)**

A unit of energy where one gigajoule equals 1,000,000 Kilojoules

**Greenhouse Global Warming Potential (GWP)**

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

**HACCP**

Hazard Analysis and Critical Control Point (an internationally recognised method of identifying and managing risk)

**Hatchery**

A facility where fish eggs are hatched under artificial conditions

**HOG**

Fish that have been processed as "Head on and gutted"

**Hog equivalent tonne**

Head on gutted weight

**Hydro electricity**

Electricity generated from running water.

**Hydrolysate**

A manufactured by-product of fish waste

**Invertebrate**

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

**ISO 14001**

An internationally recognised standard for controlling and improving a company's environmental performance.

**ISO 9001:2008**

An internationally recognised quality assurance standard that controls the processes around product and service creation

**Key Performance Indicator (KPI)**

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

**Lag indicator**

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

**LCA**

Life Cycle Assessment (see cradle to grave)

**Live weight**

The weight of the whole fish prior to processing

**LTI**

Lost time injury

**LTIFR**

Lost time injury frequency rate

**Macrophyte**

An aquatic plant

**Marine farming**

Describes the process of aquaculture in a marine environment

**Material issues**

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

**Offcuts**

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

**Passive seal deterrents**

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

**Pelagic fisheries**

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

**Redox**

Oxygen and Reduction as an indication of benthic health

**RSPCA**

Royal Society for the Prevention of Cruelty to Animals

**Salmon Aquaculture Dialogue (SAD)**

The Salmon Aquaculture Dialogue was created in 2004 with the goal of developing measurable, performance-based standards that minimize or eliminate seven key environmental and social impacts of Salmon farming

**Salmo salar**

The scientific name for Atlantic Salmon

**SALTAS**

Salmon Enterprises of Tasmania

**Saltwater aquaculture**

Aquaculture that occurs in a marine system

**Seal interaction**

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

**Sludge**

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

**Smolts**

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

**Social Return on Investment**

A method for measuring social value in order to evaluate impact on stakeholders, identify ways to improve performance, and enhance the performance of investments

**Substrate**

The seafloor beneath seacages used in salmon farming

**TPDNO**

Total permissible Dissolved nitrogen output

**Vertebrate**

An animal with a backbone e.g. wild fish

# References

Department of Agriculture, Forestry & Fishing, 2012, Department of Agriculture, Forestry & Fishing, Canberra, ACT, viewed 23rd January 2013 http://www.daff.gov.au/nationalfoodplan/national-food-plan

Fudge, M, Lewis, T. & Anderson, M. 2012, Establishing regional indicators of social sustainability in the Tasmanian aquaculture industry – a pilot study Final Report, FRDC Project No. 2010/219, FRDC, Canberra.

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| 4.2 | Chair of the highest governance body | Full | Information available in Tassal's 2011 Sustainability Report (p.7) and 'The Role of the Chairman' document (www.tassal.com.au) |
| 4.3 | Members of the highest governance body | Full | Information available in Tassal's 2012 Annual Report (www.tassal.com.au) |
| 4.4 | Mechanisms for shareholders and employees to provide recommendations to the highest governance body | Full | Information available in Tassal's 2011 Sustainability Report (p.7) (www.tassal.com.au) |
| 4.5 | Compensation for board, senior managers and executives and organisation performance | Full | Information available in Tassal's 2011 Sustainability Report (p.7) & 2012 Annual Report(pp. 14-16, 19 & 23. |
| 4.6 | Conflict of interest processes | Full | Information available in Tassal's Annual Report (pp.78-81) |
| 4.7 | Qualification and expertise of board members | Full | Information available in Tassal's 2011 Sustainability Report (p.7) |
| 4.8 | Mission statements, values, codes of conduct and principles | Full | Information available in Tassal's 2011 Sustainability Report (p.7) Corporate Governance Policies web portal and 2012 Annual Report (throughout). (www.tassal.com.au) |

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# GRI Application Level Check

## Statement
## GRI Application Level Check

GRI hereby states that **Tassal Group Limited** has presented its report "Tassal Sustainability Report 2012" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level B.

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

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

Amsterdam, 4 February 2013

Nelmara Arbex
Deputy Chief Executive
Global Reporting Initiative

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

***Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 23 January 2013. GRI explicitly excludes the statement being applied to any later changes to such material.*

# Production Notes

## Sustainability Report Team

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

Global Reporting Initiative (GRI) Advisory and Editing

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

### Design

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

### Paper

Printed in Tasmania, this report uses Revive Laser stock.
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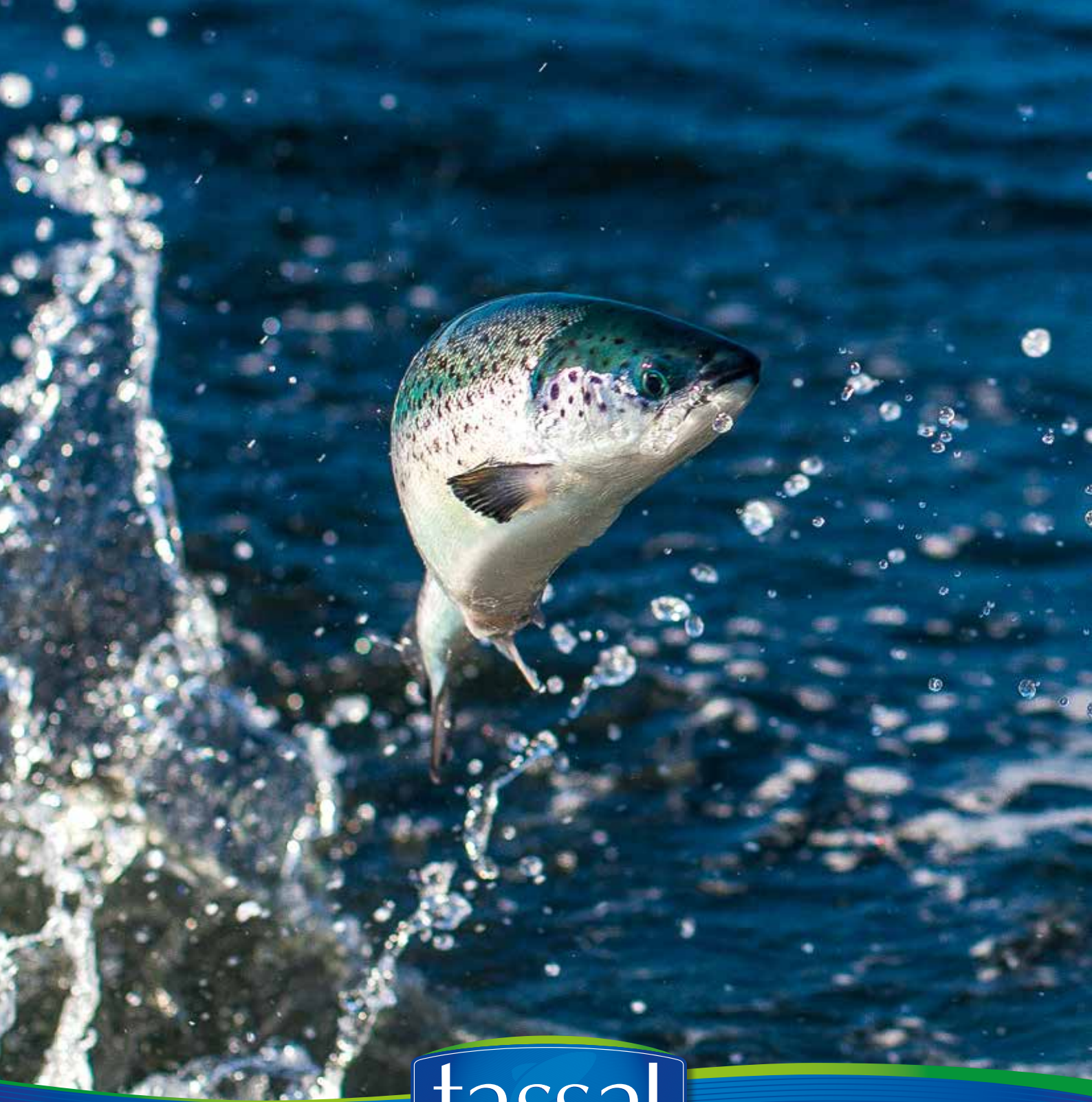
## Contact Us

If you have any comments or questions about information contained within the Tassal Sustainability Report 2012, please contact us at sustainability@tassal.com.au.



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