

# 2016 SUSTAINABLE DEVELOPMENT REPORT

BELL BAY ALUMINIUM



Wentworth  
Outstanding Australian  
Trade/Operator  
or Technician

BELL BAY  
ALUMINIUM  
Keep Down

*Our success is founded on our deep commitment to safety and operational excellence.*

## ABOUT BELL BAY ALUMINIUM

Bell Bay Aluminium, located just south of George Town near the mouth of the Tamar River, holds a unique place in Tasmanian and Australian history, becoming the first aluminium smelter in the southern hemisphere when it began production on 23 September 1955.

The smelter began operation as the Australian Aluminium Production Commission and was formed under the *Australian Aluminium Industry Act 1944*. Planning began in the 1940s and the ambitious construction project took more than six years to complete.

At a time when Tasmania was better known for its apples than large industry, the smelter commenced operation as a joint venture between the Australian and Tasmanian governments. The venture was initiated primarily to overcome the difficulties of importing aluminium during wartime.

The Bell Bay site was chosen because of its deep water port facilities and Tasmania's hydroelectric generating capacity.

Bell Bay Aluminium is 100% owned by Pacific Aluminium. Pacific Aluminium is a wholly owned subsidiary of Rio Tinto Limited.

Bell Bay Aluminium directly and indirectly employs more than 1,500 Tasmanians and contributes \$690 million per annum to Tasmania's Gross State Product.\*

Bell Bay Aluminium produces primary aluminium in the form of ingot, block and T-bar. The majority of our metal is cast to customer requirements, either pure aluminium or aluminium alloys. Some metal is sold directly in a hot state for the production of aluminium powders and pastes. Over 90% of the metal produced at Bell Bay Aluminium is exported.

Over the past six decades through collaboration, innovation and investment, the operation has grown from just 1,200 tonnes in its first year to around 190,000 per annum today.



\*Professor John Mangan (2010) "A Socio-Economic Analysis of the Rio Tinto Alcan aluminium smelter at Bell Bay in Northern Tasmania", UQ Business School Commercial 20 April, 2010.



# SUSTAINABLE DEVELOPMENT

With a commitment to continuous improvement, sustainable development is integrated into all aspects of our business and is reinforced by our policies on health, safety, environment, communities, diversity and inclusion, transparency and business integrity.

*We believe it is important that the Tasmanian community understands how we operate.*

We use a range of tools, procedures and management systems to ensure our projects, operations and expansions are appropriately planned and implemented to maximise our contribution to sustainable development.

Our 2016 Sustainable Development Report outlines key aspects of our business, people, health, safety, environment and community performance. The report is produced to help the Tasmanian community understand more about our operations, impacts and key improvement initiatives during 2016.

The 2016 Sustainable Development Report is also available online at [www.bellbayaluminium.com.au](http://www.bellbayaluminium.com.au).

The performance data presented in this report is for the 2016 calendar year. All data is considered to be a true and accurate record at the date of reporting.









# BELL BAY ALUMINIUM

## CONTENTS

FROM THE GENERAL MANAGER	02
BUSINESS PERFORMANCE	04
PEOPLE	12
HEALTH, SAFETY & ENVIRONMENT	22
Safety	23
Health	30
Environment	33
COMMUNITY	38
Investment & Engagement	39
PHOTO GALLERY	50

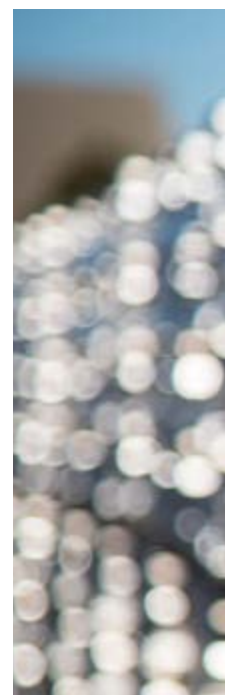
## FROM THE GENERAL MANAGER

*Any business that has operated for over 60 years and employs 1,500 people directly and indirectly will have many and varied experiences to reflect on each year.*

Bell Bay is no different, and our annual Sustainable Development Report provides us with an opportunity to share the highs and lows of our business from 2016 with you.

From a reputational point of view, nothing is more important than ensuring our employees and contractors who work on site return home safe at the end of their shift. We take this responsibility very seriously and invest significant resources to make the workplace and our practices even safer.

In 2016 key improvements included deployment of Critical Risk Management (CRM) and elimination of serious burn injuries from Potrooms. CRM is a very detailed series of checks which originated as a result of many years' worth of investigations into fatalities across global industries.



The CRM deployment is phased in over three years and Bell Bay Aluminium was marginally ahead of plan as at the end of 2016. I am pleased to report that Potrooms did not experience any serious burn injuries in 2016.

Despite the positive and proactive work in safety, three employees and two contractors suffered injuries that required medical intervention. A major review of the 2016 injuries together with a cultural survey in early 2017 will serve as a platform to improve in this area.

One of our highlights for 2016 was the opportunity to celebrate the accomplishments of a number of our talented female employees. Bell Bay Aluminium employees took out three of the five categories in the 2016 Tasmanian Women in Resources Awards and Kelly Down went on to win the 2016 Outstanding Australian Tradeswoman, Technician or Operator at the National Women in Resources Award in Adelaide in September.

Bell Bay Aluminium must broaden the diversity of its employee base if we want to ensure more creativity and competitiveness in our industry. Promoting the successes of our female workforce is one way to attract a more diverse range of applicants.





Assisting our employees to become more aware of measures they can take to improve their overall health and wellbeing is the objective behind a partnership we launched with HBP Group in May. Nearly 70% of all employees signed up to the program following the launch and we are already seeing a number of our employees make lifestyle changes which have resulted in a reduction in their personal health risk profile.

Over the past 10 years Bell Bay has continuously increased amperage and production of tonnes but in February we announced a reduction in power consumption by 10% to support the Tasmanian community during the energy crisis. This reduction impacted processes as we reduced amperage and subsequently production. While we began the ramp up to full production in May following significant rainfall, the subsequent process and stability issues the site experienced meant the smelter did not achieve its targeted plan for tonnes in 2016.

We acknowledge the support of Hydro Tasmania, TasNetworks and the State Government throughout what was a very difficult and challenging period. The results could have been far more adverse if not for the collaborative approach taken by all stakeholders during this time.

Bell Bay Aluminium has been afforded opportunities to have input into the various enquiries following the crisis and we look forward to when changes will be implemented from the recommendations.

The year heralded a loss of significant value add sales which in 2016 fell from 80-90% to 60%. This also had an impact on revenue. Signs at the end of 2016 suggest a turnaround is underway.

Despite the difficult operational issues and impact on revenue, Bell Bay Aluminium committed to an investment program totalling \$24 million in 2016. This included projects in our switchyard and automation projects in Metal Products and Potrooms. We also continued work on a project to grow the smelter's production capacity based on the potential to extend a Potline by 30 cells and produce extra green tonnes.

We approach 2017 with some legacy issues from 2016 but with the resilience and determination of being a 60-year survivor in this industry and restoring the smelter to full production again.

Ray Mostogl  
General Manager - Operations



# BUSINESS PERFORMANCE



# PROSPERITY

PERFORMANCE INDICATOR	2013	2014	2015	2016
Saleable metal produced (total tonnes)	189,423	191,246	194,435	185,610
Hot metal production	186,835	188,349	190,710	182,463
Sale of value added	85.8%	91.0%	82.6%	59.6%
Capital investment	\$26.5 million	\$21.4 million	\$25.0 million	\$24.0 million
Total salaries paid	\$49.1 million	\$46.22million	\$46.59 million	\$47.09 million
Government taxes and charges paid	\$4.4 million	\$4.0 million	\$2.93 million <sup>1</sup>	\$4.21 million
Amount spent purchasing goods and services from Tasmanian suppliers	\$247 million	\$216 million	\$191 million	\$159 million
Number of Tasmanian suppliers	326	335	323	313

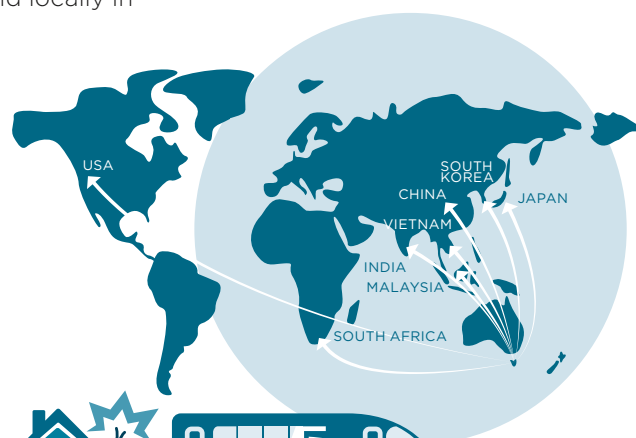
Directly and indirectly, we employ more than 1,500 Tasmanians. In 2015, we injected \$191 million into the local economy purchasing goods and services from 323 local suppliers. Independent studies have demonstrated our contribution to Gross State Product is \$690 million per annum<sup>2</sup>.

## BELL BAY ALUMINIUM EXPORTS HIGH-GRADE ALUMINIUM WITH THE BENEFITS COMING BACK TO TASMANIA

### WHAT IS OUR ALUMINIUM USED FOR?

Aluminium is a light, strong, flexible, non-corrosive and infinitely recyclable metal. The majority of metal produced at Bell Bay Aluminium is cast to customer requirements, either as pure aluminium or aluminium alloys. Approximately 10% of metal is sold locally in a hot state to Ecka Granules at Bell Bay for the production of aluminium powders and pastes.

Between 80-90% of the metal produced at Bell Bay Aluminium is exported. Primary markets for metal from Bell Bay include China, South Korea, Japan and India. The market price paid for aluminium produced by Bell Bay Aluminium is the same price paid for aluminium worldwide and is determined by the London Metal Exchange.



CANS, FOIL & PACKAGING



CONSTRUCTION & ELECTRICAL



TRANSPORT

<sup>1</sup> This figure does not include FBT, rates and land tax as well as payroll tax

<sup>2</sup> Professor John Mangan (2010) "A Socio-Economic Analysis of the Rio Tinto Alcan aluminium smelter at Bell Bay in Northern Tasmania", UQ Business School Commercial 20 April, 2010.



ABOVE:

Trung Nguyen, specialist power engineer and Luke Viney, electrical apprentice in Bell Bay Aluminium's upgraded switchyard



## 220KV SWITCHYARD PROJECT

This project formed part of the 2015 negotiations for the supply of an additional 30 megawatts of power, increasing supply to the smelter from 325 to 355 megawatts for its continuous 24-hour-a-day operation.

The objective of the project was to enable the smelter to continue to operate above 325 megawatts and up to 355 megawatts should that opportunity present itself in the future.

Electricity is supplied to Bell Bay Aluminium via two 220KV transmission lines. With one existing line already supplying the maximum allowable megawatts, the option was to install another transmission line to access the additional power; however, the estimated cost of installing another line could not be justified for the load increase.

TasNetworks and Bell Bay Aluminium worked closely together on this issue to reach a technical solution to share load between the two existing transmission lines, enabling the increased load on TasNetworks' transmission assets.

As part of the technical solution, the smelter agreed to install new equipment and protection and control systems in the switchyard at a cost of \$3 million. Extensive installation works were carried out in the smelter's switchyard during 2016 by the smelter's power supply team and local contractors.

At the George Town sub-station, TasNetworks also performed works installing new protection and control systems at a cost of \$500,000.

This was a challenging project due to the existing switchyard layout, the limited room available for installation of new equipment and a number of technical issues; however, the project team, led by Trung Nguyen, Bell Bay Aluminium's specialist power engineer, has designed a new system which will have a 20-25 year service life.

The team's approach to the project and innovative ideas has created a better engineering outcome, a safer work environment and improved plant security.





## A TEMPORARY REDUCTION IN POWER

As Tasmania's largest consumer of electricity, the smelter agreed to reduce power consumption by around 10% (between 30-40 megawatts) in early February 2016 due to the combination of the extended outage of the Basslink cable which occurred in December 2015, the lowest Spring rainfall on record and historically low dam storage levels. This reduction was to be for a period of up to four to five months.

Bell Bay Aluminium reached an agreement with Hydro Tasmania on the best energy savings measure the smelter could provide to assist with managing Tasmania's energy security during a challenging and difficult time. While endeavouring to minimise the impact on the smelter's viability, the reduction in power consumption did impact negatively on 2016 production of saleable metal and total tonnes compared to previous years.

Following significant rainfall in May and June which provided sufficient supply, in agreement with Hydro Tasmania, the smelter began to ramp back to full production, a month earlier than first planned.

Basslink's interconnector returned to service in June, almost six months to the day after the cable faulted.

In May, the Minister for Energy, Matt Groom, announced the establishment of an Energy Security Taskforce to undertake an independent energy security risk assessment for the state and identify opportunities and measures necessary to help proof Tasmania from any future energy security challenges.

Bell Bay Aluminium made a publicly available submission to the Tasmanian Energy Security Taskforce Consultation Paper and participated in a number of stakeholder consultations with the taskforce.





ABOVE L-R:  
Tim Clark, Specialist Electrical Process Engineer, Sean Killman, Dematic - Delivery Supervisor,  
Johnny Thomson, Technical Maintainer and Anthony Lenehan, Dematic - Project Manager with the new AGV's





## NEW ROBOTS CALL SMELTER HOME

In December, Bell Bay Aluminium unveiled its newest robots. Each autonomously guided vehicle (AGV) weighing 4.5 tonnes was lifted carefully and expertly off the delivery truck by a franna crane. While both AGVs were close to 100% functionality on arrival, a lengthy and rigorous commissioning and testing process commenced.

Rather than the original two tonne design, the smelter purchased the 4.5 tonne capacity vehicles to standardise the size and type of vehicle that would most commonly be used onsite and to reduce spares inventory and complexity.

The look of each vehicle has been customised and given its own image and personality. Each AGV is equipped with flashing lights, a hazard light mounted three metres high, five safety scanners for truck, pedestrian and other obstacles.

The purpose of AGVs is to perform repetitive but necessary tasks such as the transport of product from the casting facility to the warehouse.

Tim Clark specialist electrical process engineer led this work with support from Johnny Thomson technical maintainer.





LEFT:  
Bill Woodworth Business Improvement Specialist presenting at the 2016 Business Action Learning Tasmania program forum.

## BUSINESS COLLABORATION REAPING REWARDS

Since 2010, 20 projects involving 16 companies from across Tasmania have demonstrated the outcomes that can be achieved through collaborative action learning and the Business Action Learning Tasmania (BALT) program.

As part of the BALT program, a growing group of leading Tasmanian manufacturing businesses, including Bell Bay Aluminium, Cement Australia, Tasmanian Alkaloids and J. Boag & Son, are learning from each other by taking a collaborative approach to competitive manufacturing.

*Bell Bay Aluminium, a founding member of BALT, has applied a collaborative action learning approach to up-skill employees and increase competitiveness across its supply chain for the past six years.*

Through a number of BALT projects, Bell Bay Aluminium has found a way to work collaboratively with local suppliers such as CPT Engineering and AP Kempe to achieve the same goal. While the program delivers business and learning outcomes, the smelter has had the opportunity to learn from and benefit from the fresh views of outsiders to the company. It's that fresh set of eyes from the collaboration where often the unexpected benefits emerge, particularly where companies collaborate across a customer/supplier interface.

Ongoing benefits are also derived from the enhanced competency of key employees, with formal recognition for that competency. Employees learn how to apply the tools and principles of the Lean business model and sustainability to complex problems. Moreover, they learn how to seek information, direct their own learning and participate effectively in improvement processes in their workplace.







# PEOPLE





# PEOPLE

2016 PERFORMANCE INDICATORS	✘	TARGET	✔
Number of employees (FTE)*		434.8	434
Percentage of female employees*	9.6	10	
New graduates*	2	1	
New first year apprentices		3	3
Total apprentices		11	11
Total contractors (FTE)**	94.1	82	
Staff turnover (%)		7	5.5

\* As at end of 2016

\*\* As at end 2016. Note, contractors reported as full time equivalent but typically around 60 contractors are working at the smelter on any day



LEFT TO RIGHT:  
 Chris Richardson, Phil Donohue, Walter Wegerbauer, Steve Holmes, Bernard Spicer, Bob Kent, Kerry Rushton,  
 Ray Mostogl, Allan Graham, Charlie Thow, Todd Cohen, William Reay, Steven Gamble, Diane Duggan

## ANNUAL SERVICE RECOGNITION

Bell Bay Aluminium hosted its Annual Service Function in October 2016 at the Boathouse in Launceston.

Employees who achieved a service milestone of 10 years or greater in 2015 were invited to attend the annual function.

Past and present employees who have previously achieved 25 years' service are also invited to attend. General Manager Ray Mostogl and respective department managers attended and presented gifts to employees in recognition of their service milestone.

### 40 Years

Dale Boyd  
 Dennis Rogers  
 Peter Rainbow

### 35 Years

Dennis Farrell  
 David Hammersley  
 Greg Keogh  
 Bill Reay

### 30 Years

Phil Donohue  
 Diane Duggan  
 Garry Earl  
 Michael Jago  
 Bob Kent  
 Karina Lee  
 Shane Piper  
 Charlie Thow  
 Walter Wegerbauer

### 25 Years

Todd Cohen  
 Stephen Gamble  
 Allan Graham  
 Dale Goss  
 Steve Holmes  
 Nigel Kay  
 Shane Matson  
 Alister Perkins  
 Chris Richardson  
 Kerry Rushton  
 Bernard Spicer

### 20 Years

Garry Adams  
 Chris Beer  
 Thomas Bell  
 Deon Bligh  
 Scott Brookes  
 Paul Donnelly  
 Graeme Down  
 Neale Forrester  
 Alex Grodski  
 Simon Olden  
 Peter Randall  
 Anthony Reeve  
 Peter Simmons  
 Colin Skeggs  
 Mark Taylor  
 Jon Templeton  
 Leon Towns  
 Ken Yo

### 15 Years

John Brewster  
 Paul Cook  
 Ian Donaldson  
 Peter Foster  
 Tim Grant  
 Rikki Hampton  
 Adrian Hinds  
 Dennis Howe  
 Ian Hutchison  
 Phil Jamieson  
 Marcel Kok  
 Tim Lovegrove  
 Johnathan Males  
 Dean Richardson  
 Gerry Rohde  
 Dave Stephens  
 Adam Turner  
 Mark Williams

### 10 Years

Alex Atwell  
 Nathan Balym  
 Chad Clark  
 Andrew Cross  
 Patrick Cruse  
 Rodney Deacon  
 Nathan Ferguson  
 Howard Griffiths  
 Les Jarman  
 Tory McCrystal  
 Nick Millwood  
 Garry Olnier  
 Scott Paine  
 Phillip Payne  
 Lance Pfeffer  
 Aaron Rowe  
 Jamie Ungerhofer





1



2



8



3



7

CLOCKWISE FROM TOP LEFT:  
1. Brian and Liya Almeida  
2. Holly Macken, Ray Mostogl and Diane Duggan  
3. Pam Brooks and Ernie Steiner  
4. Quinton Tahiri, William Reay, Junior Tahiri, Paul Reay  
5. Tania Williams, Michelle and Dean Richardson  
6. Karen Gambles, Paul and Liz Donoghue, Gaylene White and Cecily Graham  
7. Etienne Van Niekerk, Stuart Carlile and Marty Daly  
8. Jeremy Bonnice, Sam Duncan, Kay Gallagher and Grant Macken.



6



4



5

# BELL BAY ALUMINIUM SCOOPS THE POOL AT TASMANIAN WOMEN IN RESOURCES AWARDS

Jenny Jones finished school in Grade 10 to pursue her passion of working with horses. Now she's a crew leader at Bell Bay Aluminium and in 2016 was named "Exceptional Woman in Tasmanian Resources".

"I was not expecting this win at all. Bell Bay Aluminium has given me every opportunity to advance my career and support me as a crew leader," she said.

*"It can be a tough gig but I've been given the guidance and training I needed to advance. I extend my thanks to my work colleagues as their support and advice to my success in my role is invaluable."*

Born and bred in George Town, about five kilometres from the Bell Bay Aluminium Smelter, Jenny moved to Tasmania's capital Hobart as soon as she had finished Grade 10. She wanted to pursue her passion, working with horses. She secured a job as stable hand at the Racing Stables in Hobart and from there became the stable foreman for well-known Tasmanian trainer, Charlie Goggin. While Jenny loved the work and the people, there was little room to develop professionally and she wanted to return home to George Town.

In 2008 Jenny was working as a supervisor at Millers Orchard in Hillwood, near George Town, when she saw a job advertisement for process operator roles at Bell Bay Aluminium. Jenny saw this as a new and exciting challenge in a different industry. She applied for a position and commenced work as a process operator in the carbon department in March 2008. In January 2014 she was promoted to crew leader carbon services. Jenny leads four teams, a total of 14 people, who work across two different shift rosters in the carbon baking furnace and green carbon.

"I am proud of the things I have achieved and the positive impact I have had on my team," Jenny said. "The opportunity to lead and develop people has been something that has given me great personal fulfilment in my time at Bell Bay Aluminium."



TOP L-R:  
Lou Clark, Ray Mostogl,  
Jenny Jones, Kelly Down,  
Andrea Brown, Belinda Freeman

ABOVE L-R:  
Aileen Chuo, Engineer, Kelly Down,  
Safety and Training Officer and  
Jenny Jones, Crew Leader





In her spare time Jenny volunteers as an ambulance officer for Ambulance Tasmania in George Town.

Jenny was one of five of Bell Bay Aluminium's six finalists who received awards in the 2016 Tasmanian Women in Resources Awards.

Jenny won the ultimate gong - Exceptional Woman in Tasmanian Resources - with community relations specialist Lou Clark receiving "runner up highly commended" in the same category.

Learning and development officer Kelly Down was named "Tasmanian Exceptional Tradeswoman, Operator or Technician in Resources" with process maintainer Andrea Brown

receiving "highly commended". Process maintainer Belinda Freeman was a finalist in the same category.

Process engineer Aileen Chuo collected the "Tasmanian Exceptional Young Woman in Resources" award.

Ray Mostogl Bell Bay Aluminium's general manager congratulated all six outstanding women on their achievements.

"The awards reflect the commitment and leadership they all show in their roles at Bell Bay Aluminium. All six women have made an exceptional achievement and all six reflect the strength of the entire team," Ray said.

The 2016 Tasmanian Women In Resources Awards was hosted by the Tasmanian Minerals and Energy Council (TMEC) in conjunction with WIMnet Tasmania (AusIMM).

LEFT TO RIGHT:

Kelly Down, Safety and Training Officer at the national awards

Images taken by Andy Steven, South Australian Chamber of Mines and Energy



## NATIONAL GONG AT WOMEN IN RESOURCES AWARDS

Bell Bay's Safety and Training Officer Kelly Down took out the national award in the Outstanding Tradeswoman, Operator or Technician category at the 2016 Women in Resources National Awards.

Held at the Adelaide Convention Centre in September, the awards brought together finalists from every state in Australia, including two other finalists from Bell Bay Aluminium - Crew leader Jenny Jones in the "Exceptional Woman in Australian Resources" category and process engineer Aileen Chuo in the "Exceptional Young Woman in Australian Resources" category.

Kelly Down said: "I was certainly not expecting to win this award. It is a great honour for me to be recognised in this way. I would particularly like to share the credit with my husband, Chris, who also works for BBA and my work colleagues."

"This has required me to develop an area on site where we are now able to suspend a trainee in a harness and deploy trauma straps, practising the use of the emergency descent devices that are located in our cranes."

Born and bred in George Town, Kelly finished school in Grade 10 to pursue a career in fashion. Wanting to work with her hands, she successfully completed two years at TAFE School of Fashion. Opportunities to develop a career in fashion locally were limited so Kelly followed in the footsteps of her family and successfully gained employment and an apprenticeship as a fitter and turner at Bell Bay Aluminium.

As safety and training officer, Kelly organises training for employees, maintains the Learning Management System and works with contract companies to raise their level of training to meet site requirements.

"One of the greatest risks to the workforce is working at heights, and in my role, I have developed and delivered the site's working at heights training to a nationally accredited standard," Kelly said. See page 24 for more information on the training.

Bell Bay Aluminium's acting general manager at the time; Greg Turner congratulated Kelly and said: "This is a fantastic achievement for Kelly and for Bell Bay Aluminium. Kelly's success provides an inspiration to the next generation of women and reflects the commitment and leadership she demonstrates in her role. It also reinforces our belief that the long-term sustainability of our sector relies on attracting and retaining skilled people from diverse backgrounds."



## 2016 WINNERS GM'S INNOVATION AWARDS

### BEST SOLUTION TO AN IDENTIFIED HEALTH, SAFETY AND ENVIRONMENT ISSUE

#### HIGHLY COMMENDED

Eliminate the need to interact with molten cast iron: Nathan Phillips, Metal Products & Carbon  
Hot metal carrier fire suppression system: Phil Jamieson, Potrooms

#### WINNER DONE & DUSTED

Steer wheel hub puller:  
Tane Jaram and Tyler Glover,  
Mobile Equipment Workshop and  
Kyle Summers, CPT Engineering

#### OVERALL WINNER

Working at heights  
training area: Kelly Down,  
Potrooms Maintenance

### BUSINESS IMPROVEMENT

#### HIGHLY COMMENDED

Carbon baking furnace floor tiles:  
Anthony Reeve, Metal Products  
& Carbon Services  
Ball mill alarm: Bob Kent,  
Carbon Services

#### WINNER DONE & DUSTED

Bridging unit: John Hughes,  
JLH Electrical

#### OVERALL WINNER

Autobins alumina  
addition: Stuart Carlile,  
Potrooms Maintenance

# GENERAL MANAGER'S INNOVATION AWARDS

Each year Bell Bay Aluminium's general manager recognises and celebrates those employees who have made significant process improvements, cost-saving measures or who have introduced or managed safety initiatives.

As always, there are two categories – business improvement to celebrate those who develop and implement initiatives to improve the smelter's competitiveness and best solution to an identified health, safety or environment issue to celebrate those employees who have introduced or managed health, safety or environmental initiatives.

*Whether it is an everyday achievement or a large-scale initiative to improve the workplace, all initiatives are welcome and no idea is too small.*

#### BACK ROW L-R:

Allan Graham, John Males, Peter Zoon, Nigel Britton, Franz Bezlamer, Nathan Phillips, John Smythe, Sam Duncan, Kyle Summers, CPT Engineering, Ray Mostogl

#### FRONT ROW L-R:

Jeremy Bonnice, Stuart Carlile, Kelly Down, Peter Johnston, Phil Jamieson, Evan Ollerenshaw, Glenda Bezemer, Tyler Glover





LEFT TO RIGHT:

Brendan Sherriff, Process Maintainer with award sponsor Maureen Lacey from Harcourts George Town at the George Town Chamber of Commerce Business Excellence Awards 2016.

## YOUNG ACHIEVER RECOGNISED

Process maintainer Brendan Sheriff was announced as the winner of the 2016 George Town Chamber of Commerce Young Achiever's Award in July at an awards ceremony at the Bass & Flinders Centre in George Town.

Brendan's role at the smelter focusses on the welding of cathodes for the cells and general maintenance; however, he is always looking for ways and new challenges to improve his skills. As an example, in 2016 he stepped out of his usual role to supervise bag house shut downs and a team of 15 contractors in dry scrubbing.

Brendan, who has lived and worked for most of his life in George Town, has successfully completed two apprenticeships in baking and fabrication and obtained Certificate IV in Engineering as well as Pressure Welding Certificates.

In 2011 he was a finalist in the Skills Institute (now TasTafe) Apprentice of the Year Awards. In 2015 he won the General Manager's Innovation Award for Business Improvement for a joint project he worked on with Kempe Engineering. Working on the project enabled Brendan to obtain a nationally recognised Certificate IV in Competitive Systems and Practices.







# HEALTH, SAFETY & ENVIRONMENT





# SAFETY

2016 PERFORMANCE INDICATORS	×	TARGET	✓
Number of Recordable Injuries (work-related injuries to employees or contractors)*	5	3	
All injury frequency rate	0.96	0.57	

\* 1 x contusion to left thumb  
 1 x crush fracture to tip of finger  
 1 x fractured arm,  
 1 x rib injury  
 1 x shoulder pain

## WHAT IS AN ALL INJURY FREQUENCY RATE?

The all injury frequency rate (AIFR) converts the number of recordable injuries into a number that enables comparison of our safety performance against previous years, as well as with other Rio Tinto operations around the world.

Pacific Aluminium defines a recordable injury as any work-related injury that either:

- Needs treatment by a doctor, over and above general first aid;
- Prevents a person from performing all of the duties of their role on their next given shift; or
- Prevents a person from returning to site on their next rostered shift.



## A PRACTICAL SOLUTION TO WORKING AT HEIGHTS

Falls are a major cause of death and serious injury in Australian workplaces and potential hazards can be found in a number of work areas at Bell Bay Aluminium. Many tasks require personnel to work at heights and some day-to-day activities may also require personnel to operate emergency equipment which involves using harnesses and other fall-prevention equipment.

For many years, Bell Bay Aluminium's training courses for working at heights focused on the theory with limited practical assessment. Feedback from employees suggested practical training in how to use the equipment would add real value.

Following a review, Bell Bay Aluminium re-purposed part of a building into a training facility in 2016 to provide practical working at heights training experience.

The practical experience that participants now gain during training, for example, in the use of the emergency descent device, ensures that employees and contractors will be able to safely use the emergency equipment should the occasion arise.

By virtue of this practical training, identification of issues related to the wearing of harnesses and trauma straps has allowed Bell Bay Aluminium to ensure others know the impact that poorly fitted and maintained working at heights equipment can have.

Learning and development officer Kelly Down has been the driving force behind the idea and development of an onsite training facility. Kelly's work was recognised when she won the 2016 Bell Bay Aluminium General Manager's Innovation Award for the best solution to a work health and safety issue. Kelly's initiative was also named a finalist in the Tasmanian WorkSafe Awards 2016.



#### TOP & MIDDLE:

Kelly Down, Learning and Development Officer instructing working at heights training course participants at the onsite facility

#### BOTTOM:

Kelly Down, Learning and Development Officer with Elizabeth Russell, Graduate Engineer





## WINNERS WORKSAFE TASMANIA AWARDS 2016

**OVERALL WINNER**  
MerseyLink

**BEST WORK HEALTH AND  
SAFETY MANAGEMENT SYSTEM**  
**Bell Bay Aluminium**

**BEST SOLUTION TO AN IDENTIFIED  
WORK HEALTH AND SAFETY ISSUE**  
North Eastern Soldiers Memorial  
Hospital - Scottsdale (Department of  
Health and Human Services)

**BEST WORK HEALTH AND SAFETY  
PRACTICE/S IN A SMALL BUSINESS**  
Mendelssohn Construction Pty Ltd

**BEST INDIVIDUAL CONTRIBUTION  
TO WORK HEALTH AND SAFETY**  
**WORKER:** John Goram,  
Tasmanian Networks Pty Ltd  
**WHS MANAGER OR PERSON  
WITH WHS RESPONSIBILITY:**  
Martin Judd, TasWater

**BEST INJURY MANAGEMENT AND  
RETURN TO WORK PROGRAM**  
Nyrstar

**HEALTH AND SAFETY  
REPRESENTATIVE OF THE YEAR**  
Nigel Cure, TasWater

**COMMITMENT TO A  
WORKPLACE HEALTH AND  
WELLBEING PROGRAM**  
**ORGANISATION:** MerseyLink  
**INDIVIDUAL:** Jessica Kingston, MyState

## SUCCESS AT WORKSAFE TASMANIA AWARDS

Bell Bay Aluminium received the 2016 WorkSafe Tasmania Award for the best work health and safety management system at the annual awards presentation at the Hotel Grand Chancellor in Launceston on 28 October. This award recognises demonstrated commitment to continuous improvement of work health and safety through an integrated systems approach. Other finalists in this category included Mt St Vincent Nursing Home & Therapy Centre Inc and TasWater.

The smelter submitted four entries into the category of best solution to an identified work health and safety issue and progressed as a finalist for Kelly Down's working at heights training facility initiative which was recognised as a finalist in this category.

ABOVE L-R:  
Rick Coetzee HSE  
manager, receives  
award from Minister for  
Building and  
Construction, The  
Hon. Guy Barnett MP

ABOVE RIGHT L-R:  
Genevieve Cother,  
David Allen, Estelle and  
Nathan Phillips, Rick  
and Mascha Coetzee,  
Chris and Kelly Down  
and Phil Jamieson



LEFT TO RIGHT:

Bell Bay Aluminium's Emergency Response Competition Team, Glenn Duncan, Brendon Archer, Robert Leersen, Ian Donaldson, Tony Burr, Paul Krushka, Adrian Lidster, Rodney Deacon and Phil Jamieson

## SMELTER HOSTS THE BEST

For the first time in its history, the annual Tasmanian Minerals Emergency Response Competition was held at Bell Bay Aluminium on 28 and 29 September.

The smelter hosted emergency response teams from mine and smelter sites across the state over two days. Teams competed in a range of events involving both theory and simulated emergency situations.

Bell Bay Aluminium collaborated closely with the Australian Maritime Fire Training Centre and TasRail, located in the Bell Bay industrial precinct and hosts to three of the emergency response events.

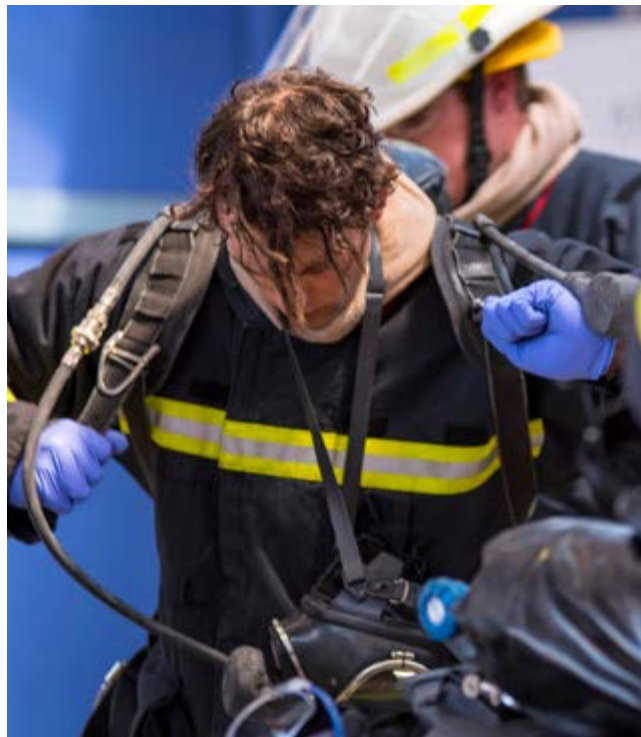
The competition enabled the smelter to support business and community organisations in George Town as teams and judges were accommodated locally, a barbecue was held at the George Town Golf Club on the Friday evening and the awards dinner at the Bass and Flinders Centre on the final day of competition.

This annual competition enabled Bell Bay Aluminium to showcase to our employees and the wider community the importance of emergency care and response in industries such as ours.

Emergency response capability continues to reshape itself to suit the changing landscape of these major industries in Tasmania and this annual competition ensures that participating team members are exposed to and practise emergency care and response to the best possible standard.

Given each mine and smelter site in the state has their own emergency response team, there is a mutual aid agreement between these operations that ensures additional skilled assistance can be called upon in the event of an emergency. This also benefits the wider community as many team members also volunteer with the State Emergency Service in their local areas.





THIS PAGE:  
Action shots of the teams competing in the 2016 Tasmanian Minerals Emergency Response Competition held at the Bell Bay Industrial Precinct.

## 2016 EMERGENCY RESPONSE TEAMS:

- BELL BAY ALUMINIUM EMERGENCY SERVICES
- BLUESTONE MINES RESCUE
- CORNWALL COAL - MINES RESCUE
- GRANGE RESOURCES - BLUE SKY MINERS
- MMG ROSEBERY - MINE RESCUE TEAM
- TMERC - MUTUAL AID COMPOSITE TEAM

The overall winner of the 2016 competition was Grange Resources who narrowly won from Cornwall Coal - Mines Rescue.

Bell Bay Aluminium performed well in the surface event, finishing in second place and third in first aid. Phil Jamieson represented the smelter in the TMERC-Mutual Aid Composite Team which finished second in the fire events and third in team skills and surface events.





# CRITICAL RISK MANAGEMENT

Bell Bay Aluminium's health, safety and environment strategy is built around eliminating fatalities and reducing injuries to employees, contractors and visitors, and preventing catastrophic incidents on site.

An initiative of Rio Tinto, Critical Risk Management (CRM) is a natural evolution from our Life Saving Controls process and was progressively rolled out across the site during 2016.

CRM is a step change in how we identify and control critical risks. It is designed to ensure that each team member has a clear understanding of what potentially fatal risks are associated with work activities, and ensures there are effective controls in place and verified to manage those risks. The process ensures a standardised and proactive approach to managing critical risks on site. All operational leaders, including managers, superintendents and supervisors have now been trained and are completing CRM interactions.

*CRM is a critical process to support our commitment:  
"We think safe.  
We work safe.  
We go home safe."*





**SAFETY HARNESS STORAGE AREA**



## HEALTH AND HYGIENE PERFORMANCE

Bell Bay Aluminium is committed to ensuring a safe and healthy work environment for our employees. With this in mind, the site's health and hygiene team provide support to employees through health promotion and activities, workplace monitoring, health surveillance and rehabilitation to eliminate occupational illnesses.

In 2016 the site recorded seven cases of occupational illnesses. An occupational illness is defined as an illness or disease that results from workplace exposure and lasts more than one shift. Two cases related to musculoskeletal conditions and included pain, discomfort or strain in an arm or shoulder. Four cases related to heat exposure and one to exposure to dust. Six cases were classed as first aid occupational illnesses and one as a medical treatment case occupational illness.

In 2016 we launched the Fitness for Life project. The project will deliver a consistent approach to the prevention, identification and management of workplace injuries and illnesses, and includes an improved approach to identifying potential health and safety issues in certain roles exposed to some of the more physically demanding tasks on site.

*The project also includes the rollout of injury prevention strategies and improving employee health at work and at home.*

Health campaigns and activities extended to providing information on hydration, heart health, diabetes, men's health (particularly prostate health), as well as offering skin checks to highlight the importance of early detection of sun damage. Our annual flu vaccination program reached 50% of our workforce in 2016, with 220 employees taking up the free vaccination.

The smelter's hydration testing program which commenced in 2015 continued into 2016. Hydration testing is incorporated with any medical assessment or drug testing process. The emphasis of the program is on education of employees to prepare for work the night or day before their shift and to come to work hydrated. In 2016, 20 potline operators were tested with no cause for concern from their results. A further 137 employees were tested during medical screening processes, again with no results of concern.

Fitness for Life focuses on musculoskeletal damage that could result from manual handling or vibration. The standard covers evaluation, control and design factors to ensure that employees do not suffer adverse health effects. At Bell Bay Aluminium, the manual handling risks are managed via the Ergo Analyst database. There are a total of 19 manual handling risk assessors on site at Bell Bay. Assessments in Ergo Analyst during 2016 were identified for updating and 26 of these have now been completed. In 2016 we also conducted a review of vibration and ergonomic exposures and manual handling training has been designed to roll out in 2017.

Health and hygiene team members attended WorkSafe Tasmania events in October during WorkSafe Month and presented at a session in Ulverstone to an audience from a wide cross section of business and industry on "Containment, Control and Monitoring at Bell Bay Aluminium."





TOP:  
Ricky Langford, HBP,  
Rick Coetzee, HSC  
Manager and Alastair  
Lynch, HBP

ABOVE:  
Alastair Lynch, HBP at  
the program launch

## WHY WE ARE FOCUSSED ON WELLNESS?

Healthy workers are fitter, more alert and aware, more resilient against illness and less likely to suffer manual handling strains or injury.

As health or injury impacts every aspect of life, Bell Bay Aluminium wants to ensure our employees have a safe and healthy working life. In April 2016, we appointed HBP Group as our on-site wellness program provider tasked with the aim of improving the health of our employees at work and at home.

The wellness program was launched to employees in May over two days during eight one-hour information sessions. Conducted by former AFL champion Alastair Lynch and highly regarded occupational physiologist

Ricky Langford, the sessions outlined the personal benefits to employees of participation in the program. More than 300 employees and contractors attended the information sessions.

HBP's program focuses on providing health assessments and individual health summary tracking, coaching, personalised support, specific health initiatives, weight and waist loss programs and personalised online programs.

While participation in the program is voluntary, as at December 2016 a total of 255 (or 60 % of the Bell Bay Aluminium workforce) employees and Category 1 contractors had registered.





# ENVIRONMENT

2016 PERFORMANCE INDICATORS	✘	TARGET	✔
Non-compliance with environmental permit conditions		0	0
Number of community complaints		0	0
Total on site greenhouse gas emissions <sup>1</sup>	1.90	1.78	
Total energy use <sup>2</sup>	73.54	71.90	
Energy efficiency <sup>3</sup>	14.57	14.25	
Total fluoride emissions <sup>4</sup>		0.85	0.78
Waste to landfill <sup>5</sup>		13.5	12.1
Fresh water usage <sup>6</sup>	0.79	0.75	

<sup>1</sup> Tonnes CO<sub>2</sub>-e per tonne aluminium produced

<sup>2</sup> Gigajoules per tonne of aluminium produced

<sup>3</sup> DckWh per kilogram of aluminium produced

<sup>4</sup> Kilograms of fluoride per tonne of aluminium produced

<sup>5</sup> Tonnes per month

<sup>6</sup> Kilolitres per tonne of aluminium produced

## NOTES

- ✔ From 1 January to 31 December 2016, Bell Bay Aluminium did not record a non-compliance with its Environment Protection Notice (EPN 7047/2). As at 31 December 2016, it had been 586 days since the last non-compliance was recorded.
- ✘ In 2016 the site achieved an on-site Green House Gas (GHG) efficiency of 1.90tCO<sub>2</sub>-e/tAl compared with 1.80tCO<sub>2</sub>-e/tAl in 2015. The 2016 performance was largely driven by the process disruptions experienced in 2016 that required the site to modify its operating current during the year. This meant poorer control of anode effects within the reduction cells that produce perfluorocarbons gases (PFCs) that have a high global warming potential. Therefore changes in PFCs produced have a significant impact on the site's overall on-site GHG emissions.
- ✘ In 2016 Bell Bay Aluminium's total energy efficiency was 73.54 GJ/tAl compared to 72.29 GJ/tAl in 2015. This was caused predominantly by process disruptions that impacted the power efficiency within the reduction cells.
- ✘ Bell Bay Aluminium consumed 143,606 kL of water in 2016, an efficiency of 0.79 kL/tAl, which was above the 0.75 kL/tAl internal target and higher than the 2015 result of 0.73 kL/tAl.  
The higher result can be attributed to:
  - Several water main leaks which have since been repaired; and
  - The requirement to test the integrity of a new liquid pitch tank that was commissioned during March 2016 which required 2,000kL of water.
- ✔ Bell Bay Aluminium continues to manage its waste arisings in a manner that avoids, where practicably possible, disposal in landfill. This strategy aims to reduce generation and take advantage of reuse, recycling and energy recovery opportunities. A total of 145 tonnes of general waste was sent to landfill during the reporting period from 1 January to 31 December 2016, which was 9 tonnes lower than reported in 2015.

# SUSTAINABLE WASTE MANAGEMENT

Bell Bay Aluminium has a commitment to actively seeking solutions to waste and by-products created from aluminium smelting. This has been demonstrated over recent years with the reuse of waste materials such as spent cell lining and bio-solids from the on-site sewage lagoon.

*This commitment prioritises resource recovery over landfill and aims to reduce environmental impact and take advantage of reusing, recycling and energy recovery opportunities.*

## GENERAL WASTE

A total of 145 tonnes of general waste was sent to landfill during 2016, in comparison to 156 tonnes in 2015. Since 2000 our data indicates a long term trend of reducing the amount of general waste that has been placed into landfill.

## RECYCLING

The site continued its extensive waste recycling program during 2016, recycling non-hazardous items including cardboard, paper, co-mingled waste, and scrap metal and bulka bags.

## SPENT POT LINER (SPL)

The smelter sent 4,752 tonnes of SPL to Cement Australia in Railton to be used as an alternative fuel in their cement kiln. This figure exceeded new arisings by over 1,000 tonnes, in line with the smelter's long-term strategy to reduce the on-site SPL stockpile over time.

## SODERBERG ANODES

Materials excavated from an historic landfill in 2001 and identified as old Soderberg anode material has been stockpiled on site for potential reuse. Approximately 150 tonnes of the material was sorted, mechanically cleaned and washed to an acceptable standard and during 2016 was recycled through the Green Carbon plant to be incorporated into fresh anodes.

## ALUMINIUM DROSS

The smelter produces approximately 3,600 tonnes of dross per year at a consistent rate of approximately 300 tonnes per month. This hazardous waste was previously sold to an interstate metal recycler who recovered the metal from the dross until 2015 when the smelter engaged Inalco to build and commission a dross recycling facility on site.

In 2016 the facility recycled 2,763 tonnes of Bell Bay Aluminium dross and 55 tonnes of dross from neighbouring aluminium powder plant, Ecka Granules.





Chestnut Teals at the Bell Bay Aluminium Site Wetlands





## TREES FOR THE FUTURE

More than 100 students from local schools in George Town got their hands dirty and their feet muddy planting trees in August at the smelter's annual tree planting day at the Old Farm on Bridport Road.

Armed with gardening gloves and trowels, students teamed up with Bell Bay employees Sam Duncan, Leon Towns and Lou Clark to help restore an endangered plant community that once thrived in the Tamar Valley.

Bell Bay Aluminium's annual tree planting project is an initiative to get local students involved in helping the environment. Students learn about threatened plant ecosystems as well as learning about proper planting practice.

Swamp paperbark, Australian blackwood, black peppermint, white gum, black sheoak, silver banksia and silver wattle were among the varieties planted.

*Every tree that students planted has a positive impact on the future of our planet and helps to preserve the current environment in the local area.*

George Town Rotary Club generously supported the day by cooking a BBQ for each of the schools once they had finished their planting.

Owned by the smelter, this the sixth year that we have planted trees at this site with the help of students from South George Town Primary School, Star of the Sea Catholic College and Port Dalrymple School.





TOP AND MIDDLE:  
Students from Port Dalrymple, South  
George Town and Star of the Sea with Lou  
Clark, Community Relations Specialist and  
Sam Duncan, Environment and Analytical  
Superintendent planting trees at Old Farm on  
Bridport Road







# COMMUNITY



# INVESTMENT & ENGAGEMENT

## 2016 PERFORMANCE INDICATORS



## TARGET



Number of community complaints

0

0

## COMMUNITY FEEDBACK

We welcome and encourage feedback to assist us to improve the way we work. We take all complaints seriously and investigate each one in a timely and responsive manner.

Remedial actions are taken where appropriate. All complaints are reported to the site general manager and are recorded in the site incident reporting system.

We did not receive any community complaints in 2016.



George Town Golf Club Clubhouse

# LOCAL SUPPORT AND INVESTMENT

As well as buying locally where possible, we also aim to contribute to the Tasmanian community by providing financial and in-kind support for initiatives that demonstrate a strong commitment to:

- sustainable development principles
- educational excellence, particularly in the fields of maths, engineering and science
- building community capacity
- health and wellbeing
- arts and cultural diversity experiences.

## IN 2016 WE PROUDLY SUPPORTED

F1 in Schools program	George Town Science Expo
Theatre North's Kids Accessing Theatre program	Breath of Fresh Air Film Festival
Tasmanian Symphony Orchestra Mini TSO in George Town	End of year school prizes
UTAS Governor's Environmental Scholarship	Annual tree planting days at George Town and Launceston with students from local schools and the Rotary Clubs of George Town, Evandale and West Tamar
UTAS Electronics and Computer Systems Prize	Paid leave for employee involvement in community initiatives such as F1 In Schools judging
Tasmanian Science Talent Search Awards	Donations of surplus equipment including computers, batteries and office furniture to community organisations
UTAS Science Investigation Awards	Employee participation in health and wellbeing initiatives such as the Launceston Ten, Sally's Ride, White Lion and Police Charity Trust Golf Day and Launceston Aquatic membership
George Town Chamber of Commerce Business Excellence Awards	George Town Golf Club, George Town Gun Club and the George Town Pony Club by making land and associated facilities available at minimal rent
Launceston Chamber of Commerce Business Excellence Awards	Bell Bay Aluminium-owned Lauriston Park as a private recreational area for community use
Bell Bay Aluminium Junior Tennis Championships	
South Launceston Athletics Club	
George Town RSL sub-branch Anzac Day	
QVMAG's National Science Week	
George Town Fire Brigade	



# GEORGE TOWN PROJECT

In early 2013 Bell Bay Aluminium (BBA) recognised the importance of establishing a broader and more diverse customer base for existing industries located in the Bell Bay Industrial Precinct. Given the vagaries of the international commodity market, exchange rates and political volatility, together with recent trends in Australian industry where whole sectors have olded (eg car manufacturing), ensuring a stable, independent and resilient community is vital for the economic futures of George Town and the Tamar Valley.

*The George Town project has continued to evolve throughout 2016 and BBA's Community Consultative Committee has evolved to focus on developing a plan to help local businesses become less reliant on major industries in the area.*

In May expressions of interest were sought to establish the newly formed George Town Economic Development Steering Committee that includes membership from businesses located in the industrial precinct, George Town Council, George Town Chamber of Commerce and a community representative.

At its first meeting in June the Steering Committee agreed that growing and expanding economic activity at the Bell Bay Industrial Precinct presented an immediate opportunity to facilitate economic development for the George Town area. From this, the project to 'provide competitive advantage to manufacturers at Bell Bay' was created.

The objectives of the project are to:

- support manufacturers to improve their productivity and competitiveness
- encourage manufacturers to innovate, extend or diversify their business
- grow the number of complementary manufacturers within the bell bay industrial precinct.

While it has taken some time to form a new committee and produce data and evidence for why the Bell Bay Industrial Precinct offers significant economic growth potential, the committee is at a point where the rate of progress required needs to be driven through the employment of a project officer. This will to help deliver the work plan activities that will contribute to the objectives of providing competitive advantage to manufacturers at Bell Bay.

Scoping of the role is currently underway.

LEFT TO RIGHT:  
Chris Barzca, East Tamar Maintenance, Roger Aalbrecht, AP Kempe, John Martin, George Town Council, Greg Hannan, South32 Temco, Michael Jones, Ecka Granules, Ray Mostogl, Bell Bay Aluminium, Jill Holden, George Town, Leigh Darcy, Bell Bay Aluminium, Brian Hayes, Forico, Geoff Watson, CPT Engineering, Terri Cameron, George Town Chamber of Commerce and Andrew Taylor, South32 Temco





Ray Mostogl, Bell Bay Aluminium and Jenny Brown, Managing Director, Environex George Town





# GEORGE TOWN BUSINESSES RECOGNISED

The George Town Chamber of Commerce Business Excellence Awards recognise and reward businesses in the George Town municipality that excel in their fields. Now in their fifth year, Bell Bay Aluminium has supported the awards as naming rights sponsor for the past three years.

The George Town Chamber of Commerce and Bell Bay Aluminium Business Excellence Awards were determined through public voting in five categories and a panel of judges in four other categories. A record number of businesses entered categories requiring a written submission and a record number of votes were cast in the public voting categories, emphasizing the strength and dynamism of the local George Town business community.

The awards program culminated in a presentation evening at the Bass & Flinders Centre in George Town on Friday, 29 July attended by local business, community leaders, parliamentarians and awards sponsors.

## 2016 GEORGE TOWN CHAMBER OF COMMERCE AND BELL BAY ALUMINIUM BUSINESS EXCELLENCE AWARDS WINNERS

### SUBMISSION AWARDS

**BEST SMALL BUSINESS**  
NewsXpress, George Town

**INNOVATION IN BUSINESS**  
Envorinex

**YOUNG ACHIEVER**  
Brendan Sherriff,  
Bell Bay Aluminium

**JUDGE'S ENCOURAGEMENT AWARD**  
Jodie Snooks,  
& Co and The House of J

### PUBLIC VOTING AWARDS

**CUSTOMER SERVICE BUSINESS**  
Kaizen Hair

**CUSTOMER SERVICE INDIVIDUAL**  
Christine Thomson,  
BWS George Town

**BEST TOURISM EXPERIENCE**  
Low Head Penguin Tours

**BEST BUSINESS PRESENTATION  
INCLUDING CUSTOMER SERVICE**  
Hebe Reef Cafe

**MOST POPULAR BUSINESS**  
BWS George Town





LEFT TO RIGHT:

Heather Eleveld, Cancer Patients Foundation, Mark Williams, Bell Bay Aluminium, Lynne Walter, Cancer Patients Foundation, Leigh Darcy, Bell Bay Aluminium, Geoff Lyons, Launceston Surf Lifesaving Club, Lou Clark and Neil Andrews, Bell Bay Aluminium, Vicky Garrity, Pademelon Park Wildlife Refuge, Rob Leersen, Bell Bay Aluminium, Ranine Carson, Birralee & Districts Pony Club, Steve Swenson and Kim Ackerley, Tasmanian Acquired Brain Injury Service, Shelley Breen, Bell Bay Aluminium, Angelita Penney and Mark Garrity, Launceston Little Athletics Club, David Woodfield, Bell Bay Aluminium.

## LOCAL GROUPS BENEFIT FROM ANNUAL GRANTS PROGRAM

Safety and first aid equipment to assist a local surf lifesaving club, support for a committed group of volunteers raising awareness of secondary incurable breast cancer, assistance to help establish a vegetable and herb garden program and a free community service program dedicated to teaching techniques to cancer patients to help them cope with the appearance-related side effects of treatment were just four of the eight projects selected by Bell Bay Aluminium employees to receive a community grant in 2016.

Launceston Surf Lifesaving Club, Launceston Little Athletics Club, Birralee & Districts Pony Club, Pademelon Park Wildlife Refuge, Swap it Tas, Tasmanian Acquired Brain

Injury Service, Seconds Count Organising Committee and Cancer Patients Foundation were the 2016 grant recipients from Bell Bay Aluminium's annual community grants program.

Bell Bay employees had the arduous task of assessing applications for the community grants and the Launceston Tamar Valley Sporting Grant.

The eight successful organisations received grants ranging in value from \$500 to \$2,000 at a morning tea and presentation at Pepper's York Cove in George Town on Friday 16 December.



## 2016 COMMUNITY GRANT RECIPIENTS

The grants enabled these organisations to purchase much needed equipment or deliver specific support programs

---

**Launceston Surf Lifesaving Club** - defibrillator and first aid equipment

---

**Birralee & Districts Pony Club** - defibrillator

---

**Cancer Patients Foundation** - Look Good Feel Better workshop, Launceston

---

**Second Counts Organising Committee** - research projects to find better ways to treat and ultimately cure secondary breast cancer.

---

**Swap it Tas** - educational reading materials and tools to assist communities with the aim of reducing waste and landfill.

---

**Tasmanian Acquired Brain Injury Service** - establish a vegetable and herb garden program for clients.

---

**Pademelon Park Wildlife Refuge** - filtration system to assist with rehabilitation of orphaned and injured blue penguins, Fierland Crested and Snare penguin adolescents.

---

**Launceston Little Athletics Club** - new equipment

### TOP:

Lynne Walter and Heather Eleveld, Cancer Patients Foundation - Look Good Feel Better workshop with Mark Williams, Bell Bay Aluminium

### SECOND:

Mark Garrity and Angelita Penney, Launceston Little Athletics Club with David Woodfield, Bell Bay Aluminium

### THIRD:

Kim Ackerley and Steve Swenson, Tasmanian Acquired Brain Injury Service with Shelley Breen, Bell Bay Aluminium

### BOTTOM:

Ranine Carson, Birralee & Districts Pony Club with Neil Andrews, Bell Bay Aluminium



## CREATING A GENERATION OF WORLD-CLASS INNOVATORS

Teams from Ulverstone, Queechy, Kings Meadows and Clarence High Schools battled it out in the F1 in Schools™ Challenge on Thursday 15 September at the Tailrace Centre, Riverside.

Teams of between three to five students from Years 7-12 used real world three dimensional CAD/CAM technologies to design, test, manufacture and race miniature CO<sub>2</sub>-powered balsa wood F1 cars.

The gas-powered cars are capable of speeds exceeding 80 kilometres per hour and can cover the track in less than 1.5 seconds.

Teams were assessed by independent judges against set criteria including engineering and manufacturing, car speed, portfolio design, branding, industry collaboration and verbal presentations.

*The F1 in Schools™ Challenge is not just about the cars ... but rather the opportunity to create and test ideas.*

The underlying learning is about communication, collaboration, teamwork and innovation ... and it's all done in a fun learning environment.

Queechy High School dominated the state challenge winning both the professional and development class. In their first year in the competition, Clarence High School's Clarence One took out the Cadet Class Championship.

Bell Bay Aluminium, in partnership with Re-Engineering Australia, established this innovative program in Northern Tasmania in 2008. F1 in Schools™ Challenge is the largest secondary school technology program in the world, involving more than 10 million students from 17,000 schools in 44 countries.

Tasmanian schools have a strong history of success in the program at a national and international level.

Note: In February 2017, Golden Diversity won the National Final in the Professional Class with Instant Transmission finishing in third place. Both teams will represent Australia at the World Final from 23-28 September 2017 in Kuala Lumpur; Golden Diversity, Queechy High School as a standalone team and Instant Transmission, Launceston College as part of an internal collaboration with Revolution Racing, Mount View High School, NSW.





## TASMANIA STATE FINALS RESULTS

Award Name	Class	Team Name	School
State Champions	Cadet Class	Clarence One	Clarence High School
	Development Class	ZealTech Racing	Queechy High School
	Professional Class	Instant Transmission	Queechy High School
2nd Place	Professional Class	Golden Diversity	Queechy High School
Fastest Lap	Cadet Class	Clarence One (1.228s)	Clarence High School
	Development Class	ZealTech Racing (1.223s)	Queechy High School
	Professional Class	Instant Transmission (1.202s)	Queechy High School
Grand Prix Race	Cadet Class	Clarence One (2.515s)	Clarence High School
	Development Class	ZealTech Racing (7.579s)	Queechy High School
	Professional Class	Instant Transmission (7.458s)	Queechy High School
Knockout Champions	Development Class	ZealTech Racing	Queechy High School
	Professional Class	Instant Transmission	Queechy High School
Best Reaction Time	Development Class	ZealTech Racing (0.170s)	Queechy High School
	Professional Class	Instant Transmission (0.140s)	Queechy High School
Best Engineered Car	Cadet Class	Clarence One	Clarence High School
Best Team Portfolio	Professional Class	Golden Diversity	Queechy High School
Best Managed Enterprise	Professional Class	Golden Diversity	Queechy High School
Best Graphic Design	Professional Class	Instant Transmission	Queechy High School
Best Team Marketing	Development Class	ZealTech Racing	Queechy High School
	Professional Class	Golden Diversity	Queechy High School
Best Team Verbal Presentation	Development Class	ZealTech Racing	Queechy High School
	Professional Class	Golden Diversity	Queechy High School
Outstanding Industry Collaboration	Development Class	ZealTech Racing	Queechy High School
	Professional Class	Golden Diversity	Queechy High School
Innovation Award	Development Class	ZealTech Racing	Queechy High School
	Professional Class	Golden Diversity	Queechy High School
National Final Wildcard	Development Class	Golden Diversity	Queechy High School

Shelley Breen, Bell Bay Aluminium, with students at the mini TSO in George Town



## MINI TSO PERFORM IN GEORGE TOWN

In May, supported by Bell Bay Aluminium, the Tasmanian Symphony Orchestra (TSO), presented two highly engaging concerts for George Town schools in the George Town Memorial Hall.

Mini TSO, a 15-piece touring ensemble which includes one of every instrument usually found in a full orchestra, performed works from Tchaikovsky's ballet suites "Sleeping Beauty" and "Swan Lake" as well as an arrangement of "The Sorcerer's Apprentice" by Dukas.

Conducted by Gary Wain and presented by Jane Longhurst, the 50-minute concert was interactive, with singalongs of songs designed to excite and inspire students through the myriad tone colours created by an orchestral ensemble.

In the lead up to this concert a competition was run to encourage students to engage further in the performance with the making of "Magical Batons". The winners with the best batons, Nikaih Edwards, South George Town and Eli Snooks, Star of the Sea were offered a unique chance to conduct the Mini TSO using their "Magic Baton" as well as receiving a prize from Bell Bay Aluminium presented by Shelley Breen personal assistant to general manager Ray Mostogl.

The two concerts were attended by 200 students from Port Dalrymple School, Star of the Sea Catholic College, Beaconsfield Primary School, South George Town Primary School, Exeter Primary School and Bridport Primary School.







## GEORGE TOWN'S BIGGER SCIENCE EXPO

Robots, racers, drones and droids descended on the George Town Memorial Hall complex on Wednesday, 18 August during National Science Week, transforming the space into a hive of engineering innovation and expertise.

Students from Port Dalrymple, South George Town Primary and Star of the Sea schools competed in the Great Robot Challenge after designing, engineering, programming, constructing and testing robots at school in the weeks leading up to the expo. Using mobile phones to control the robots, students manoeuvred their machines around an obstacle course designed to challenge the students and demonstrate their new skills.

The Great Robot Challenge was the culmination of a series of robotics and programming workshops delivered in the schools by the Peter Underwood Centre for Educational Attainment, UTAS.

The F1 in Schools™ Technology Challenge in Northern Tasmania, supported by Bell Bay Aluminium, was on site - a full 26 metre track with miniature F1 cars. STEM students from Queechy High School were on hand to demonstrate and race the miniature F1 cars. The Australian Maritime College demonstrated an autonomous underwater vehicle, TasWater revealed technologies used to supply our water and UTAS ran a presentation on future uses for drones.

The inaugural George Town Bigger Science Expo was sponsored by Bell Bay Aluminium, South32, George Town Council, George Town Community Hub, UTAS and schools in George Town, with support from the National Science Week Seed Grant Program. The Expo was part of National Science Week celebrations nationally, where everything is hands on, interactive and inspiring.







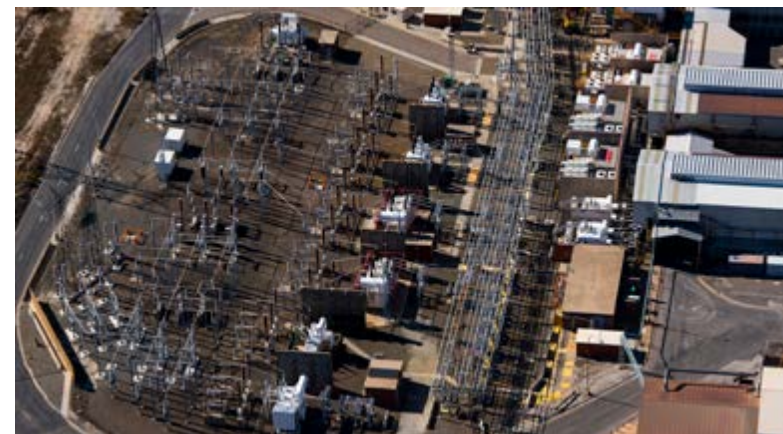












# BELL BAY ALUMINIUM

---

PACIFIC **ALUMINIUM**

PO Box 290, George Town  
TAS 7253 Australia  
**T:** +61 (3) 6382 5111  
bellbaycommunityrelations@pacificaluminium.com.au  
**www.bellbayaluminium.com.au**

Photography courtesy Rob Burnett [robburnettimages.com.au](http://robburnettimages.com.au)