2015
SUSTAINABLE
DEVELOPMENT
REPORT

BELL BAY
ALUMINIUM
CELEBRATING
60
YEARS
About Bell Bay Aluminium

Located just south of George Town at the mouth of the Tamar River, the smelter produces around 190,000 tons of aluminium per annum. Our main metal products are ingot, block and T-bar.

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

Bell Bay was the first aluminium smelter built in the Southern Hemisphere, commencing production in 1955 as a joint venture between the Commonwealth and Tasmanian Governments.

Our Ownership

In October 2011, Rio Tinto announced its intent to align some of its aluminium assets and formed Pacific Aluminium. Pacific Aluminium includes the operations of Boyne Smelters Limited and Gladstone Power Station in Queensland, Tomago Aluminium in New South Wales and New Zealand Aluminium Smelters Limited in New Zealand. Pacific Aluminium produces more than one million tonnes of aluminium each year.

Bell Bay Aluminium and Sustainable Development

With a commitment to continuous improvement, sustainable development is integrated into all aspects of our business, including our record of protecting people from harm, actively engaging with our communities and our ability to demonstrate sound environmental management practices and stewardship of our natural resources.

Produced annually, our Sustainable Development Report outlines key aspects of our performance in the areas of business performance, people, health, safety, environment and community. This report is produced to help the Tasmanian community understand more about our operations, impacts and key improvement initiatives over the past 12 months.

The 2015 Sustainable Development Report is also available online at www.bellbayaluminium.com.au.

We believe it is important that the Tasmanian community understand how we operate.
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From the General Manager

One of Bell Bay Aluminium’s more visible achievements of 2015 was our celebration of 60 years of aluminium smelting in Tasmania. While we celebrated this milestone over a two-month period in August and September with employees, our local community, the general public and key business and government stakeholders, the real celebration was the new foundation which we have built that underpins Bell Bay Aluminium.

The past four years of restructuring our business paid dividends in 2015 with a number of important capital upgrades to the smelter. Although the investment in these upgrades was moderate, the nature of the investments signalled a sense of permanency which has not been evident for the past few years. This included the construction on-site of an aluminium dross processing plant and the installation of a pipeline from the smelter’s aging sewerage treatment plant to TasWater’s facility, located five kilometres from our site.

Another significant milestone in 2015 was the announcement of an agreement with Hydro Tasmania to supply an additional 33 megawatts (MW) of power to the smelter, increasing overall power supplied to 355MW. The additional energy supported continued amperage increases which in turn led to the achievement of a new hot metal tonnes record for the year. As a consequence of the additional supply, we are in a position to consider alternate future options to further grow the smelter’s capacity.

Our people continue to be the true source of why we remain a viable business; taking the challenges of 2015 in their stride demonstrated this. While team sizes are but a shadow of their historical size, the efficiency and tenacity of our employees keeps this business functioning. However it’s important that we ensure the balance is right between effort required and the resource available to deal with plant and process challenges. One of our challenges in 2016 will be to find this balance. It’s key to ensuring our business remains viable and sustainable.

From a safety perspective we saw a further reduction in the number and severity of recordable injuries from six in 2014 to four in 2015. Disappointingly, however, we exceeded our target of no more than three recordable injuries for the year.
On a bright note our Emergency Response Team picked up a first place and three second places at the annual Tasmanian Minerals and Energy Council Emergency Response competition. This is the first time a team from the smelter has won one of the competition events. We look forward to hosting this annual competition on-site in 2016.

It was certainly a year of two halves when it came to global macro-economic factors and market conditions. In the second half of the year, premiums for specialised products tumbled back to historical levels in the space of just a few months. Low premiums and customers with excess inventories meant our value add component was greatly reduced, significantly impacting revenue in the second half of the year.

Commodity prices have decreased to some of the lowest levels we have seen in recent history with no clear line of sight on when this decline will end. While Bell Bay Aluminium is relatively well positioned to withstand these market conditions, we are a much more finely balanced business as a result.

In saying this, the smelters long and proud history is paved with many examples of overcoming adversity. Given the determination and new mindset in how we size up opportunities, I have full confidence the team will ensure 2016 and beyond contains many more bright spots.

Ray Mostogl
General Manager – Operations
OF ALUMINIUM PRODUCTION
IN TASMANIA

The Bell Bay Aluminium smelter 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.

Our success continues to help drive Tasmania's economic prosperity and we look forward to continuing our relationship with the Tasmanian community for future generations.
Hosting Premier and State Cabinet in 60th Anniversary Celebrations

Bell Bay Aluminium welcomed Tasmania Premier Will Hodgman and State Cabinet to the smelter’s operation on Thursday, 3 September 2015. The site visit was part of the ongoing 60th anniversary celebrations at Bell Bay, which included community open days, team lunches and cake for the entire site on the smelter’s actual birthday—Wednesday 23 September.

General Manager Ray Mostogl said: “We were delighted to host the Premier and State Cabinet at Bell Bay and I would like to acknowledge the support from the Tasmanian community and State and Federal Governments, past and present, who have partnered with Bell Bay Aluminium over the past 60 years.”

“I was humbled to be representing the thousands of employees who have worked at Bell Bay Aluminium over the past six decades. Without the tenacity and innovation of these employees, we would not be here today.”

Ray and the Bell Bay management team showcased a number of recent capital projects on the site tour, introducing the Premier and his Cabinet to a day behind the scenes at Bell Bay Aluminium.

The site visit was followed by a VIP event hosted that evening at the Academy Gallery at the Tasmanian College of the Arts (Inveresk) in Launceston.

State and Federal parliamentary representatives, industry representatives, Pacific Aluminium Executive Committee and local stakeholders from George Town and across the State were in attendance at the function to hear speeches given by General Manager, Ray Mostogl and Premier Will Hodgman.

Congratulatory video messages were also given by former Prime Minister Tony Abbott and Leader of the Opposition Bill Shorten.

“Without the tenacity and innovation of these employees we would not be here today.”
Celebrating 60 Years!

To mark 60 years of aluminium smelting in Tasmania, Bell Bay Aluminium opened its doors to more than 1,000 visitors on Sunday 20 and 27 September to give the community a unique look at the first aluminium smelter built in the southern hemisphere.

Historical displays and memorabilia were showcased in the on-site visitor’s centre and cafeteria. Guided bus tours by Bell Bay Aluminium’s knowledgeable and experienced staff provided an insight into how the smelter’s aluminium products are made. The tours were so popular they booked out both weekends within the first hour of the site being open.

Members of the public and former employees joined current employees and their families to celebrate the smelter’s birthday. There was a wonderful feeling of friendliness and nostalgia in the air! The feedback received has been overwhelmingly positive with many visitors thanking staff for making them feel so welcome.

The open days wrapped up the two-month long celebrations at Bell Bay Aluminium.
### BUSINESS PERFORMANCE

**PERFORMANCE INDICATOR**

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saleable metal produced (total tonnes)</td>
<td>189,423</td>
<td>191,246</td>
<td>194,435</td>
</tr>
<tr>
<td>Hot metal production</td>
<td>186,835</td>
<td>188,349</td>
<td>190,710</td>
</tr>
<tr>
<td>Sale of value added</td>
<td>85.8%</td>
<td>91.0%</td>
<td>82.6%</td>
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<tr>
<td>Capital investment</td>
<td>$26.5 million</td>
<td>$21.4 million</td>
<td>$25.0 million</td>
</tr>
<tr>
<td>Total salaries paid</td>
<td>$49.1 million</td>
<td>$46.22 million</td>
<td>$46.59 million</td>
</tr>
<tr>
<td>Government taxes and charges paid</td>
<td>$4.4 million</td>
<td>$4.0 million</td>
<td>$2.93 million</td>
</tr>
<tr>
<td>Amount spent purchasing goods and services from Tasmanian suppliers</td>
<td>$247 million</td>
<td>$216 million</td>
<td>$191 million</td>
</tr>
<tr>
<td>Number of Tasmanian suppliers</td>
<td>326</td>
<td>335</td>
<td>323</td>
</tr>
</tbody>
</table>

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*.

#### 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 per cent 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 per cent 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 Metals Exchange.

Success in Local Collaborations

Greg Turner, Potlines Manager, represented Bell Bay Aluminium at the TasNetworks Bell Bay Aluminium Launceston Chamber of Commerce Business Excellence Awards on Saturday, 31 October, 2015.

As well as presenting the award to S. Group for Business of the Year, Greg was delighted to also present the Bell Bay Aluminium Excellence in Manufacturing Award to Geoff Watson from CPT Engineering, based in George Town.

CPT Engineering was presented with the award on the basis of the work they did to secure the mini-lambda anode rod fabrication and rod repair contracts from Bell Bay Aluminium. Four independent judges from across Tasmania judged CPT as the winner in this category. This award is great recognition in the Northern Tasmanian business community of CPT’s growth story as a result of their business collaboration with Bell Bay Aluminium in recent years.
The Power Shot

On Thursday, 7 May 2015, Bell Bay Aluminium announced an agreement with Hydro Tasmania for the supply of an additional 33 megawatts (MW) of power. The agreement helped secure long-term future investment at the smelter and potentially construction jobs for local suppliers and contractors in Northern Tasmanian.

The commercial agreement increased power supplied to the smelter from 322MW to 355MW which, along with a parallel capital investment program of around $30 million, will allow Bell Bay Aluminium to increase production.

With a large media contingent on-site for the announcement, including Minister for Energy Mr Matthew Groom MP, State Treasurer Mr Peter Gutwein MP, Tasmanian Coordinator General John Perry, member for Bass, Sarah Courtney and representatives from Hydro Tasmania and TasNetworks, Bell Bay Aluminium figuratively flicked the switch on the deal at an announcement that took place in the smelter’s switchyard.

“Since 2012, Bell Bay Aluminium has been on a well-documented journey to restructure, transform and survive. As a consequence, the smelter has been exploring a number of options to improve productivity — to enable an increased tonnage over our same fixed costs. This announcement also facilitates a future option to grow the smelter’s production capacity by a further 30 cells if we can attract the necessary capital for the project.”

“...growing the business beyond the power block... was not thought remotely possible just two years ago. It is a credit to each and every employee...”

"It was a great privilege to be able to share with our employees, contractors, suppliers and the broader community that Bell Bay Aluminium is turning the corner. To even contemplate growing the business beyond the power block we have had since the 1990s was not thought remotely possible just two years ago. It is a credit to each and every employee who has accepted the challenge and then made the changes our business has needed, which has positioned us to take this next step," General Manager, Ray Mostogl said.

Note: In February 2016, Bell Bay Aluminium announced an agreement with Hydro Tasmania on the best energy savings measure the smelter could provide to assist with managing Tasmania’s energy security due to the combination of historically low dam storage levels, the lowest spring rainfall on record and the extended outage of the BassLink cable. The smelter has reduced its power consumption by around 10 per cent or between 32-40 megawatts for up to four to five months in 2016. The upgrade related to the 2015 announcement is still underway; however, some of the work will slow during this period and a reduction in available energy means we will temporarily unwind the production gains made in 2015."
Performance Indicator

<table>
<thead>
<tr>
<th>PERFORMANCE INDICATOR</th>
<th>2014 ACTUAL</th>
<th>2015 TARGET</th>
<th>2015 ACTUAL</th>
<th>TARGET MET</th>
<th>2016 TARGET</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees (FTE)</td>
<td>434.6</td>
<td>428.1</td>
<td>436.1</td>
<td>✔</td>
<td>434.8</td>
<td>As at end of 2015</td>
</tr>
<tr>
<td>Percentage of female employees</td>
<td>9.9</td>
<td>10%</td>
<td>9.4%</td>
<td>✗</td>
<td>10%</td>
<td>As at end of 2015</td>
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<tr>
<td>New graduates</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>✗</td>
<td>1</td>
<td>As at end of 2015</td>
</tr>
<tr>
<td>New first year apprentices</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>✔</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total apprentices</td>
<td>12</td>
<td>11</td>
<td>11</td>
<td>✔</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Total contractors (FTE)</td>
<td>81</td>
<td>83</td>
<td>96.3</td>
<td>✗</td>
<td>82</td>
<td>As at end 2015. Note, contractors reported as full time equivalent but typically around 60 contractors are working at Bell Bay smelter on any day.</td>
</tr>
<tr>
<td>Staff turnover</td>
<td>5.2%</td>
<td>7%</td>
<td>5.5%</td>
<td>✔</td>
<td>7%</td>
<td></td>
</tr>
</tbody>
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**Our Commitment**

In 2015, Bell Bay Aluminium developed its new strategic vision following many months of employee consultation and feedback. In March we launched the new “Our Commitment Poster”.

The poster, ‘We are Proudly Tasmanian and Here to Stay’ centres on “Our People” and is a strong visual symbol that unites our employees to take Bell Bay Aluminium into the future. The values captured as part of the consultation with employees represent our commitment, our vision and our aspirations and are central to the way we make decisions for the business and how we work every day.

Employees volunteered to have their photographs taken by Rob Burnett, Rob Burnett Images for the first poster launched in our 60th year of operation. All employees will have the opportunity to be included in subsequent posters.

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**Our values**

Respect

Accountability

Courage

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BELL BAY ALUMINIUM

2015 SUSTAINABLE DEVELOPMENT REPORT
Bell Bay Aluminium hosted its Annual Service Function in September 2015 at the Tailrace Centre, Launceston. Employees who achieved a service milestone of 10 years or greater in 2015 were invited to the Annual Service 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.

**Annual Service Recognition**

Bell Bay Aluminium hosted its Annual Service Function in September 2015 at the Tailrace Centre, Launceston. Employees who achieved a service milestone of 10 years or greater in 2015 were invited to the Annual Service 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.

<table>
<thead>
<tr>
<th>45 Years</th>
<th>40 Years</th>
<th>35 Years</th>
<th>30 Years</th>
<th>25 Years</th>
<th>20 Years</th>
<th>15 Years</th>
<th>10 Years</th>
<th>5 Years</th>
</tr>
</thead>
</table>
45 Years on the Job!

Gary Axton marked a significant milestone in 2015 when he clocked up 45 years at Bell Bay. A specialist in commercial systems, Gary, commenced work at the smelter in 1970 as an accounting cadet.

With his brother, Robin, and nephew, Tim also working at the smelter, it’s no surprise that Gary thinks of Bell Bay as a home away from home!

60th Birthday Celebrations All Round!

If you combined the years of employment of Bell Bay Aluminium employees Peter Zoon, Peter Rainbow, David Fraser, Robin Axton and Maurie Krushka, they would total more than 180 years. Like the smelter, all five employees also celebrated their 60th birthdays in 2015.

During their decades of employment with the smelter, the five men have worked in a variety of roles, have seen major changes unfold in the industry and have helped implement measures that hold the company in good stead today.

They all agree that two of the more significant changes during their employment with the smelter include a down size of staff due to increased automation in production and the company’s focus on safety.

Process controller, David Fraser, who was also recognised in 2015 for his 40 years of service said when he first started at the smelter they didn’t even wear hard hats.

Crew leader, Peter Zoon, started work at the smelter as an apprentice. Over that time he has worked with a diverse and interesting group of people, learning as much from them as they have from him, as well as socialising outside of work with them.

Power Controller, Robin Axton, who works in the Power Supply team says the company has always been supportive, fostered a culture of camaraderie, has helped build a community and provided income to many families over its 60 years.

Process operator, Peter Rainbow, said one of the things he has enjoyed the most is the great working relationships with people at Bell Bay.

Good mates, all five said they hoped to stay with the company until their retirement.
HEALTH, SAFETY & ENVIRONMENT
### SAFETY

**PERFORMANCE INDICATOR**

<table>
<thead>
<tr>
<th>Number of Recordable Injuries (work-related injuries to employees or contractors)</th>
<th>2014 ACTUAL</th>
<th>2015 TARGET</th>
<th>2015 ACTUAL</th>
<th>TARGET MET</th>
<th>NOTES</th>
</tr>
</thead>
</table>
|  | 6 | 3 | 4 | × | Medical Treatment Case Injury  
• Strained left shoulder and arm operating gas lever  
• Burn injury to eye at induction furnace  
• Cut mouth from tree branch that struck contractor |
| All injury frequency rate | 1.2 | 0.6 | 0.76 | × | Medical Treatment Injury  
• Laceration to left index finger |

**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.
General Manager’s Innovation Awards 2015

PRESSURE RELEASE VALVE

The vacuum truck is used for cleaning up spills on site that may cause an environmental or safety incident. The truck may also be used to transfer material from areas or processes to allow for maintenance work.

Serious potential health and safety issues associated with vacuum truck activities include:
• inhalation of gases and/or particulates
• dust in eyes
• crush injuries due to the release of stored energy.

To empty the truck, the operator had to manually open the dust hatch tube and risked becoming covered in dust and water or seriously injured from the release of stored energy or high pressure water.

An interlocking pressure relief system was developed by employees Damian King and Rodney Deacon to eliminate these risks.

A valve has now been positioned in such a way that the equipment operator avoids opening the cap before the pressure is released. In this case the operator and maintenance team have devised a poka-yoke technique to eliminate the risk so that this operation cannot be performed incorrectly. This interlock concept could be applied to any other workplace or industry that has a vacuum truck or uses any system that requires pressure relief.

As the overall winner of the Health, Safety and Environment Award in the General Manager’s Innovation Awards 2015, this initiative was also entered in to the Worksafe Tasmania Awards.

CONGRATULATIONS TO THE WINNERS OF THE 2015 GM’S INNOVATION AWARDS

OVERALL WINNER HSE AWARD
Pressure Release Valve – Vac Truck: Damian King and Rodney Deacon

HSE INNOVATION AWARD WINNERS
Ergonomics-HMC Console Modifications in Cab: Gary Joslin
Alumina Airslide Modification: Tez Clark and Damian Glover
VSI Rotator Flow Controls: Marty Zeeman
Pressure Release Valve – Vac Truck: Damian King and Rodney Deacon

BUSINESS IMPROVEMENT OVERALL WINNER
Recycling Collector Bar Tails: Brendan Sherriff and Roger Aalbregt (Kempe Engineering)

BUSINESS IMPROVEMENTS WINNERS
CCS Anode Effect Prediction: Greg Picot, Potrooms, Bruce Reardon and PTC
CBF3 Rebuild-Side Wall Lifter: Stephen Gamble and Ant Reeve
Recycling Collector Bar Tails: Brendan Sherriff and Roger Aalbregt (Kempe Engineering)
Celebrating Innovation in Work Health and Safety

On Saturday 30 October, Bell Bay Aluminium was presented with a special award for Commitment to WHS Excellence at the Tasmanian WorkSafe Awards 2015.

This category was not open for public entry/nomination. This presentation recognised the long-term commitment of Bell Bay Aluminium to developing and maintaining a culture that balances innovation with healthy and safe work practices at the business core. This commitment has been reflected through the smelter’s multiple entries and recognition in the awards program since 1996.

The Tasmanian WorkSafe Awards highlighted that everyone, regardless of their business operations and size, can make safety a priority in their workplace. From micro-businesses to businesses that operate throughout Tasmania and beyond, the 2015 winners and finalists demonstrated that safety is good for business.

On hand to accept the award (which was a surprise on the night) from Bell Bay were Rick Coetzee, Tim Grant, Jenny Jones, Damien King and Rodney Deacon. Both Damien and Rodney had been nominated by Bell Bay Aluminium for the 2015 Awards in the Best WHS Initiative.

The awards, an initiative of WorkSafe Tasmania and the WorkCover Tasmania Board, celebrate Tasmanian businesses and individuals who lead the way in work health and safety.
Crisis Scenarios Test Our Emergency Response Team

Emergency response teams had 45 minutes to rescue a dummy suspended above the ground at the 2015 Tasmanian Minerals Emergency Response Competition hosted on the North West Coast by Bluestone Mines in November.

Simulating crisis scenarios, teams from mining and minerals processing companies from across Tasmania came together to compete. The goal of the annual competition is to ensure exposure to and the practise of emergency care and response.

The tough scenarios included a man staggering out of the bush, playing an injured car crash victim as part of the fire fighting competition. Teams had to respond to the injured man as well as manage a three car collision where one vehicle caught fire. The rope competition challenged teams to demonstrate how they would respond if someone had fallen down a shaft or were stuck in a confined space.

The overall winner of the 2015 competition was MMG Rosebery who narrowly won from Bluestone Mines.

Congratulations to Bell Bay Aluminium’s Emergency Response team who performed extremely well coming third in Theory, second in the HazCHem event and taking out first place in the Surface Rescue event. Bell Bay Aluminium was also well-represented in the Tasmanian Minerals and Emergency Response Committee team who seconded two of our team members to compete.
TASMANIAN MINERALS EMERGENCY RESPONSE COMPETITION AIMS TO PROMOTE:

- Communication, collaboration and the pursuit of industry best practice in emergency response.
- Support, facilitate and de-risk mutual aid by removing barriers, developing protocols and systems and installing minimum standards.
- Demonstrate emergency response in our minerals industry to be equally professional and trusted as SES, Fire and Ambulance services.

The team:

Captain          Phil Jamieson
Vice-Captain     Allan Hamilton
Member           Dean Richardson
Member           Brendan Archer
Member           Adam Underhill
Member           Robert Leersen
Member           Brian Cottnam

Bell Bay Aluminium team participate in crash/fire fighting scenario at 2015 Emergency Response Competition.

Bell Bay Aluminium Emergency Response team practise safety drills on-site.
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 provides support to employees through health promotion and activities, workplace monitoring, health surveillance and rehabilitation in an effort to eliminate occupational illnesses.

In 2015, 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. All seven cases related to musculoskeletal conditions and included pain, discomfort or strain in a leg, wrist, arm, shoulder or back with only one classed as a lost day occupational illness.

In 2016, the site will launch 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 will also include the rollout of injury prevention strategies and improving employee health at work and at home.

In 2015, health campaigns and activities extended to providing information on healthy eating, heart awareness, the wellness program as well as offering skin checks to highlight the importance of early detection of sun damage.

Our annual flu vaccination program reached almost 50 per cent of our workforce in 2015, with 213 employees taking up the free vaccination. Ensuring the vaccination is accessible to all employees in the workplace has proven to be the key to success with this annual program. With improved service provision, this strategy has resulted in an increase in the general uptake of vaccinations over the past three years.

Bell Bay Aluminium’s health and hygiene team also commenced a hydration testing program in late 2015. Hydration testing is incorporated with any medical assessment or drug testing process. The aim of the program is to educate employees to prepare for work the night or day before their shift and to come to work hydrated.

Employees had the opportunity to undergo health risk assessments and wellness checks through the site’s periodical medical and wellness programs. In 2015, 177 health risk assessments were conducted.

Health and hygiene team members attended WorkSafe Tasmania events in Launceston during WorkSafe Month and the annual Health and Wellbeing conference in Hobart.
Bell Bay Runners Win Corporate Challenge

Tasmania’s Launceston Ten is Australia’s fastest and richest 10 kilometre running race. With more than $20,000 in cash prizes up for grabs, it is a hotly contested race.

Run annually in June, the 2015 event attracted 1,600 runners for the 2km, 5km and 10km races. Fourteen employees entered the 10km race supported by the company.

The corporate challenge saw an impressive 80 teams of four competitors take part, representing organisations from around Tasmania as well as interstate.

In very cold and overcast conditions, Bell Bay Aluminium’s Aub Henricks (39 mins, 39 secs), Grant Macken (40 mins, 52 secs), Sam Duncan (41 mins, 31 secs) and Daniel Van Der Vlist (42 mins, 51 secs) were the winning team and took out the St Luke’s Health Corporate Challenge Shield for the second year. Both Aub and Daniel were also part of the winning team in 2014.

CORPORATE CHALLENGE FINAL PLACINGS:
Bell Bay Aluminium 1st, Capital Chemist Riverside 2nd, Roberts Ltd 3rd.
## ENVIRONMENT

### PERFORMANCE INDICATOR

<table>
<thead>
<tr>
<th>PERFORMANCE INDICATOR</th>
<th>2014 ACTUALS</th>
<th>2015 TARGET</th>
<th>2015 ACTUAL</th>
<th>TARGET MET</th>
<th>2016 TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-compliance with environmental permit conditions</td>
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<td>0</td>
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<tr>
<td>Number of community complaints</td>
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<td>0</td>
<td>0</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>Total on-site greenhouse gas emissions (tonnes CO₂-e per tonne aluminium produced)</td>
<td>1.79</td>
<td>1.79</td>
<td>1.80</td>
<td>✗</td>
<td>1.78</td>
</tr>
<tr>
<td>Total energy use (gigajoules per tonne of aluminium produced)</td>
<td>71.45</td>
<td>71.89</td>
<td>72.29</td>
<td>✗</td>
<td>71.90</td>
</tr>
<tr>
<td>Energy efficiency (DCkWh per kilogram of aluminium produced)</td>
<td>14.10</td>
<td>14.14</td>
<td>14.32</td>
<td>✗</td>
<td>14.25</td>
</tr>
<tr>
<td>Total fluoride emissions (kilograms of fluoride per tonne of aluminium produced)</td>
<td>0.90</td>
<td>0.90</td>
<td>0.79</td>
<td>✓</td>
<td>0.85</td>
</tr>
<tr>
<td>Waste to landfill (tonnes per month)</td>
<td>13.5</td>
<td>13.5</td>
<td>13.0</td>
<td>✓</td>
<td>13.5</td>
</tr>
<tr>
<td>Fresh water usage (kilolitres per tonne of aluminium produced)</td>
<td>0.80</td>
<td>0.78</td>
<td>0.73</td>
<td>✓</td>
<td>0.75</td>
</tr>
</tbody>
</table>

### How we performed

- ✗ During a stack test for particulate on the Potlines, dry scrubber the compliance level of 100 mg/m³ was exceeded with a result of 110 mg/m³ total particulate. This was caused by several incorrectly operating dust sensors. The site has revised its maintenance practices on the dust sensors, updated response plans and sources and purchased a more accurate and reliable particulate monitor for the Potlines, dry scrubber stack.

- ✓ We met our water use target in 2015.

- ✓ We continued our tree planting initiative on Bell Bay Aluminium land at Bridport Road and on Launceston City Council-owned land at Tailrace Park. This involved planting 6,000 native trees with local school students.

- ✓ In 2015 Bell Bay Aluminium commissioned a gas fired furnace that allowed the site to recover additional metal from aluminium dross, a hazardous waste produced by the process. The smelter now recycles this material on-site, rather than transporting it interstate.

- ✓ We met our general waste to landfill target in 2015, driven partially by a change in waste skip management and further encouragement of diverting waste to recycling options.

- ✓ We met our total fluoride emissions target for 2015.
A Well-balanced Eco-system

The Bell Bay Aluminium wetlands are not only a haven for local wildlife; they also play a very important role in minimising the smelter’s environmental impact.

The on-site, six-hectare wetlands were established between January and June 1996 and act as a filtration system for water used in the aluminium process.

Water is used to cool the molten aluminium and the pressed anodes; this water is then discharged to the site’s stormwater system. Stormwater from the northern catchment is diverted to the wetlands where it is naturally filtered before it reaches the Tamar River.

The filtering system consists of thousands of aquatic and semi-aquatic plants, planted across the smaller ponds and the main outlet pond. The wetlands use this vegetation with its underwater root systems called rhizomes to remove contaminants present in the water.

The deep stilling ponds intercept first-flush stormwater run-off from the operating site. They allow for sediments to be deposited from the water by dissipating energy from the channel flow.

The broad weirs were constructed from local stone, and enhance solids entrainment, minimise erosion and offer valuable substrate for colonising invertebrates. They also control depth and velocity of flow.

More than 10,000 native trees, shrubs and grasses have been planted... providing habitat for local native wildlife.

The vegetation used in the landscaping of the six-hectare wetlands are local native species that occur naturally in northern Tasmanian wetlands. More than 10,000 native trees, shrubs and grasses have been planted with the main emphasis being placed on providing habitat for local native wildlife.

The wetlands attract a lot of wildlife, birdlife, many mammals and amphibians, including a number of frog species and reptiles.
New Sewerage Line

In mid-2015, Bell Bay Aluminium replaced the sewerage plant system at the smelter. After 40 years, the in-ground oxidation sewerage settling ponds had reached the end of their service life, and given the smelter does not have a tertiary treatment system, the site was managing the risk of exceeding the e-coli limit as set out in our EPA licence. In order to meet the required standards and eliminate the risk of discharge into the Tamar River, replacement of our old system was a priority.

This project required the installation of a new 160mm pipeline to take Bell Bay Aluminium’s sewerage and pump it to a locally operated municipal waste water facility owned by TasWater.

The new pipeline runs from the smelter, via Bell Bay Road and Old Bell Bay Road, to the TasWater sewerage treatment plant. The pipeline was installed by directional drilling, not open trenching wherever possible, as this is a much more cost effective and less disruptive process.

While other alternatives were looked at, connecting to TasWater’s sewerage treatment plant was considered the best option. The cost of the work was approximately $960,000. New pumps to transfer the waste into the new pipeline to TasWater were also installed and decommissioning of the settling ponds will commence in 2016.
Eliminating Environmental Risk

Construction works commenced in May on a new on-site dross processing facility at the smelter. The new plant was identified as a key project for 2015 and took five months to construct.

Aluminium dross, a valuable by-product of the aluminium smelting process, can be mechanically recycled to separate the residual aluminium metal from the aluminium oxide. Due to its hazardous nature, the dross was managed as a controlled waste. Approximately 300 tonnes of dross per month had been shipped from Bell Bay to Tomago, New South Wales, almost 1,500 kilometres away, to a downstream aluminium by-product processing facility. This project has allowed the smelter to re-process this waste on-site and eliminate the environmental risks associated with the transport of this material interstate.

Up to 60 per cent of dross skimmed off pots is aluminium metal, and the new on-site facility is expected to recycle the majority of this back into production. The remaining oxide residue is then sent offsite for processing into a range of products, including cement and the lining of industrial moulds.

By having an on-site facility, Bell Bay Aluminium is able to recapture some of the aluminium at a lower cost while yielding a higher recovery rate. The plant commenced production in late October and has the potential to increase revenue by around $1.5 million a year.
Students Get Their Hands Dirty For Tree Planting Project

In August, students from St Finn Bar’s Catholic School, East Tamar Primary School and Mowbray Heights Primary School got their hands dirty to help revitalise the population of swamp paperbark trees at Newnham in Launceston.

Approximately 100 students from the three schools planted 1,500 trees in the northern suburb of Launceston.

The smelter’s annual tree planting program has been running for six years and for the past five years the smelter has partnered with the Launceston City Council to plant trees at the Newnham site.

“The trees we have planted here for the past five years are doing really well,” Bell Bay Aluminium Community Relations Specialist Lou Clark said.

The smelter organised two further tree planting days with Invermay Primary School, West Launceston Primary School and St Anthony’s Catholic School planting trees at Tailrace Park. Beaconsfield Primary School, Port Dalrymple and Star of the Sea students from George Town planted trees on land owned and managed by Bell Bay Aluminium on Bridport Road.

“This is a lovely partnership with our local schools and our thanks also extend to the Council who prepare the ground for us and allow us to plant the trees in this location.”

Each tree planting day was supported by the Rotary Clubs of George Town, West Tamar and Evandale who cooked barbeques for all the hungry volunteers!
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 2015.
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 experience.

In 2015 we were proud to support:

- F1 in Schools program
- Theatre North’s Kids Accessing Theatre program
- Tasmanian Symphony Orchestra Mini TSO in George Town
- UTAS Governor’s Environmental Scholarship
- UTAS Electronics and Computer Systems Prize
- Tasmanian Science Talent Search Awards
- UTAS Science Investigation Awards
- George Town Chamber of Commerce Business Excellence Awards
- Launceston Chamber of Commerce Business Excellence Awards
- Bell Bay Aluminium Junior Tennis Championships
- South Launceston Athletics Club
- Lilydale Pony Club
- Cape Hope Foundation
- Heart Foundation Big Heart Appeal
- George Town RSL sub-branch Anzac Day
- George Town Fire Brigade
- Breath of Fresh Air Film Festival
- Examiner Winter Relief Appeal
- End of Year School Prizes
- 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
- QVMAG’s National Science Week
- Paid leave for employee involvement in community initiatives such as F1 in Schools judging
- Donations of surplus equipment including computers, batteries and office furniture to community organisations
- 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 Golf Club, George Town Gun Club and the George Town Pony Club by making land and associated facilities available at minimal rent
- Bell Bay Aluminium-owned Lauriston Park as a private recreational area for community use.
George Town Project

Bell Bay Aluminium’s Community Consultative Committee is now firmly focused on developing and driving a strategy to potentially increase business and employment opportunities in the George Town area over the next 10-15 years.

The committee’s makeup has expanded to include key community, business and government stakeholders in the George Town and Bell Bay precinct.

The committee has determined a two-pronged approach; firstly increase the capability of existing businesses in the precinct. This particular piece of work is predominantly being led and supported by the Australian Industry Group. Secondly, attract new industries to the region and, importantly, better promote the capacity and infrastructure available in the industrial precinct.

Four meetings were held in 2015 and guest speakers included John Perry, Coordinator General, John Rowlings, Project Officer, Coordinator General’s Office, Bruce Williams, Economic Development Officer, Launceston City Council and Leigh Darcy, Principal Adviser, Power Supply, Bell Bay Aluminium.

In 2015, the primary focus of work was the development of the Bell Bay Industrial Precinct Prospectus with the Office of the Coordinator General. The Bell Bay industrial precinct is the most significant industrial area in Tasmania and represents exceptional opportunity for businesses to establish, relocate or expand their operations.

State Growth Minister Matthew Groom led an eight-day delegation to China last September, which aimed to promote investment in the state’s food, education and tourism sectors. The prospectus was softly launched at a trade show during the visit.

The committee has also sought to speak with other like manufacturing groups and organisations with a view to determining the best governance model that can support and sustain the project’s proposed plan and aims.

While the challenges to developing and implementing a project of this nature are real, there is an enthusiasm within the local community for a collaborative approach by local industry, community and government to successfully plan the precinct’s future!
Nine Northern Groups Benefit From Grants Program

Nine community grants were awarded to northern Tasmanian organisations by Bell Bay Aluminium in 2015 as part of our annual community grants program.

Safety equipment to support a riding for the disabled program, a defibrillator for the Northern Support School’s indoor pool area and assistance with a facility upgrade for the Beaconsfield Primary School Parent Association were just three of the nine projects selected by smelter employees to receive community grants.

The nine organisations included Beaconsfield Primary School Parent Association Inc., Ansons Bay Progress Association, George Town’s Doing Life Together, Tamar FM, Point of Women Inc. Clarence Point, Pegasus Riding School, Northern Support School, Launceston Elderly Citizen’s Club and George Town Archers Inc.

Employees, Leigh Darcy, Neil Andrews, Rob Leersen, Shelley Breen, Mark Williams, Rachel Potter, Neale Forrester and Kerry Rushton had the arduous task of assessing approximately 70 applications.

The successful organisations received their grants which ranged in value from $1,000 to $2,000 at a morning tea and presentation at Pepper’s York Cove in George Town on Tuesday, 17 November.
Ansons Bay Progress Association – defibrillator
Northern Support School – defibrillator
Beaconsfield Primary School Parent Association – replacement seating in the school’s outdoor area
Launceston Elderly Citizen’s Club – purchase and installation of new lighting in their clubrooms
Tamar FM – a new satellite dish and related equipment that will enable delivery of content to listeners in the Tamar Valley
Doing Life Together – an annual community event in George Town which raises awareness of mental health issues
Pegasus Riding School – safety helmets for a riding program which aims to provide a safe and, positive farm-based experience for adults and children of all abilities
Point of Women Inc. Clarence Point – WW1 Memorial Project at Sunset Boulevard, Clarence Point
George Town Archers – replacement equipment following break-in at their club rooms

2015 Community Grant Recipients

The grants enabled these organisations to purchase much needed equipment or deliver specific support programs.
2015 F1 in Schools™

Excitingly F1 in Schools™ national final was held at the Formula 1 Australian Grand Prix at Albert Park from the 12-14 March. The best and brightest students from across Australia competed for the chance to represent Australia at the world final in Singapore.

Bell Bay Aluminium has supported the F1 in Schools™ program in Tasmania since its inception in 2008. Three Tasmanian teams competed in the 2015 national finals in Melbourne:

- Red Storm Racing - Queechy High School
- High Octane - Queechy High School
- Ignition - Ulverstone High School

The three-day competition was intense. Not only did students have to deal with the rigours of competition, including verbal presentations, engineering and pit display judging as well as racing, they also spent time meeting with many VIP visitors, Grand Prix race patrons and the media.

The Tasmanian teams performed well at the competition. Ignition, Ulverstone High School placed fifth in the Professional Class and received the Encouragement Award. Subsequently, Ignition was awarded a wild card and competed at the world final in Singapore in September as part of collaboration team, Endeavour, with students from the United Kingdom. Queechy High School’s, High Octane won the Fastest Reaction Time in the Development Class.
Tasmanian Student Chosen by Williams F1!

Peter Henderson, from Ulverstone High School’s F1 team, Ignition, competed at the world final in Singapore as the team Endeavour’s engineer. Now studying at Don College, Peter was chosen for the Williams Ranstad F1 Academy Mentoring Program following the world final.

Williams F1 understand the capacity of these students to perform at the highest levels and have established an academy for the best and brightest that will see Williams and Randstad mentor students from across the world as they bid to secure a career as Formula One engineers. Students who competed in the World Final were invited to apply to enter the academy. From the 350 applications, 11 students were selected to go forward into the program. Only two Australian students were selected in the final 11.

Peter, who has already begun the course, has been assigned an experienced Williams engineer as a mentor to guide him through the program. Peter plans to study mechanical engineering at university.
Tasmanian Symphony Orchestra Explores Space Travel

The Tasmanian Symphony Orchestra (TSO), with generous support from partner Bell Bay Aluminium, presented two highly engaging concerts for more than 400 school students from six schools in the George Town Memorial Hall on Wednesday, 21 October. Mini TSO, a 15-piece touring ensemble drawn from the TSO, performed works that explored space travel in all its forms, from fireworks soaring through the night sky — cue Handel’s Music for the Royal Fireworks — to the intergalactic adventures of the Star Wars movies.

Two core activities fully engaged the school children and linked the concert with the science, history, literacy and art curricula. The first was an art activity where the students were asked to make their own Voyager Golden Record with a decorated covering of aluminium foil. Like the original NASA Voyager records, these aim to represent a time capsule which contains information about the diversity of life and culture on planet Earth.

The second activity invited students to write to an extra-terrestrial being, telling them about who they were. The best entries in both activities were presented with gift vouchers from Bell Bay Aluminium.