

# Enviro news

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# Supporting United Nations (UN) Global Action Initiatives

In late 2015, the United Nations established two major global sustainability action initiatives.

## 1. Taking action towards the UN Sustainable Development Goals (SDGs)

On 25 September 2015, countries adopted a set of goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda.

The SDGs describe 17 global priorities to meet by 2030 in order to combat the challenges currently facing our planet.

Each SDG has a series of supporting targets – specific, actionable objectives that must be achieved to meet the goal. Together, the goals and targets provide a detailed framework and common language that governments and organisations all over the world can use to talk about sustainability.

The SDGs replace and expand on the UN's Millennium Development Goals. However, the SDGs unlike their predecessor are relevant to all countries not just those in the developing world and businesses are encouraged to help solve global challenges.

Downer's Purpose states that **we exist to create and sustain the modern environment** by building trusted relationships with our public and private sector customers. We do that directly through delivering against a number of SDGs through the products and services we provide to our customers. Goals covered by the work we do include #6 Clean Water and Sanitation, #7 Affordable and Clean Energy (through the Wind and Solar Farms we construct); #9 Industry Innovation and Infrastructure; #11 Sustainable Cities and Communities to mention a few.



## 2. Restricting Global Temperature Increase to <math><2^{\circ}</math>

The second major sustainability milestone was the United Nations Framework Convention on Climate Change (UNFCCC) 2015 Paris Climate Conference held in December 2015, also known as COP21 which for the first time in over 20 years of UN negotiations achieved a legally binding and universal agreement on climate action, with the aim of keeping global warming below 2°C. The Paris Agreement is an enduring, legally binding treaty on climate action which contains emission reduction commitments from 195 countries (including Australia and New Zealand) starting in 2020. Australia and New Zealand have joined 175 countries in formally signing the agreement and businesses are working with Governments to achieve the targets.

As we are largely a contract service provider our ability to develop value for money processes that help reduce our overall energy consumption and emissions across our business allows us to assist our customers in managing their environmental sustainability challenges.

We monitor our sustainability impacts, challenges and opportunities and we voluntarily disclose our carbon performance annually through the CDP (formally known as *Carbon Disclosure Project*) investor program, and through our Sustainability Reports. Within these reports we describe the key opportunities we have pursued for greenhouse gas (GHG) emissions reductions, energy efficiency improvements, sourcing alternative energies, fuels, options for water supply and developing business resilience plans to manage changes in business activity due to climate related impacts. ■



# World Environment Day

This year the Downer World Environment Day competition sets a challenge for you to identify good and bad environmental sustainability practices through our environmental sustainability illustration quiz.

We would also like you to tell us what you have been doing in relation to sustainability to make our workplace, your home and your community more sustainable. There is also an opportunity to get your children involved in a colouring competition.

The theme for World Environment Day this year is zero tolerance for illegal wildlife trade. Whilst this initially may appear to have limited relevance for Downer's business activities, we can still use the day to remember that we all have a responsibility to minimise the environmental impact of our activities on the natural environment and protect the habitat of wildlife in areas where we work.

There are some great prizes on offer.

Visit the Downer World Environment Day [intranet page](#) or email [sustainability@downergroup.com](mailto:sustainability@downergroup.com) to download the quiz, check out the conditions for entry and submit your entries by **5:00pm** (your local time) on **Monday, 30 May**.



## HELP CELEBRATE WORLD ENVIRONMENT DAY

Take the challenge yourself or get your team together and answer the environmental/sustainability illustration quiz for a chance to win a great prize.

Get your children to colour the illustration and submit for a chance to win a prize.



Download the illustration quiz and answer the sustainability question. Send your answers and entry form by Monday 30 May 2016 to:

[sustainability@downergroup.com](mailto:sustainability@downergroup.com)

For more information, visit the Group intranet.



# Understanding Environmental Law

Late last year, EC&M and Infrastructure Services representatives attended a Downer Environmental Compliance session in the Perth office, facilitated by Corrs Chambers Westgarth lawyers.

The session commenced with a discussion on the importance of compliance for the organisation, focusing on the business impacts of environmental prosecution and litigation which included time delays, financial implications, brand and reputation harm, jeopardising winning future work and individual liability.

The remainder of the session was an open discussion on making compliance simple. This was an opportunity to discuss past environmental incidents and current challenges faced by our project management teams. The key messages included the need for a solid risk assessment process, ensuring operators understand compliance obligations, building proactive relationships with the regulator and implementing effective management processes in the event of a breach.

Feedback from the session was extremely positive with participants feeling they gained an increased understanding of environmental compliance obligations.

For further information on the session, please contact your Environmental Sustainability or Learning and Development representative.

## Did you know?

- The world has lost one third of arable land from erosion or pollution over the past 40 years.
- Chinese replace mobile phones as frequently as every 8-12 months which is resulting in about 80 million mobiles going to waste each year.



# Fuelling thought leadership to drive sustainability

The following article ran in the **Infrastructure Sustainability Council of Australia (ISCA) 2016 Year Book**, of which Downer is a member (read more about ISCA on the article on the following page).

Downer's brand message, **Relationships creating success**, highlights the company's commitment to building and sustaining relationships.

“Thought leadership comes alive by employing the best people and having the courage to challenge the status quo – it keeps us at the forefront of our industry when it comes to sustainability.”

Sergio Cinerari, CEO Downer Infrastructure Services

Downer believes that a key enabler to creating success is thought leadership, and this forms one of the key pillars that underpins the business.

“Thought leadership is about embracing innovation and having the tenacity to turn inspiration and ideas into reality, which then becomes the new standard,” says Sergio Cinerari, CEO Downer Infrastructure Services.

“Thought leadership comes alive by employing the best people and having the courage to challenge the status quo – it keeps us at the forefront of our industry when it comes to sustainability.”

Downer invests in its people through a range of initiatives including a Group-wide customised mentoring program and an ongoing focus on engagement and development.

Thought leadership is a key theme in its leadership development programs, which were rolled out to more than 300 frontline supervisors and middle leaders across Australia and New Zealand in 2015.

A number of programs that encourage innovation are run annually, including Downer's inaugural 'Future Box' innovation competition that saw 286 submissions received last year from across the Group.

In recent years, Downer's people have been responsible for a range of innovations relating to sustainability. This includes Downer's world-first 99% recycled asphalt demonstration that pioneered the use of waste items such as toner from used printer cartridges and tyres that would typically be stockpiled or sent to landfill.

This thought leadership has seen Downer be the first company in Australia to be awarded an IS rating, and the only company to have been awarded IS Design, As Built and Operations ratings - all rated 'Excellent'.

“Collaborative partners like ISCA enable us to put that thought leadership into practice through piloting new IS rating schemes that help us continue developing our leadership in sustainable outcomes,” said Ricky Bridge, Downer Group General Manager, Environment Operations.

Other recent recognition includes Downer being the first company in the Southern Hemisphere to be recognised with the new ISO 55001 Accredited Certification for Asset Management.

“As much as achieving our recent ISO accreditation is further endorsement of our credibility and leadership in effectively, efficiently and sustainably managing assets on behalf of our customers, what's even more important is to recognise that our business activities have an impact on the community and the environments in which we operate,” Mr Bridge added.

“Enduring and collaborative relationships with our partners enable us to bring thought leadership to life in the work we do. It's all about **relationships creating success.**”

It's the trusted relationships we build with our customers, colleagues and communities that allow us to create and sustain our modern environment.

**Industry Leaders**

- First IS Design Rating
- First IS As Built Rating
- First IS Operations Rating

IS EXCELLENCE

IS EXCELLENCE

IS EXCELLENCE

**Downer**  
Relationships creating success

www.downergroup.com

Image: To continue expanding the Low Carbon Road Products, Downer partnered with the City of Bunnings in Victoria to set a new benchmark with a world first 99% recycled asphalt demonstration that pioneered the use of waste items such as toner from printer cartridges and used tyres that would typically be stockpiled or sent to landfill.



# Ararat Wind Farm first renewable energy project registered for an IS rating

The Ararat Wind Farm project is the first renewable energy project in Australia to register for an Infrastructure Sustainability Council of Australia (ISCA) Infrastructure Sustainability (IS) As Built rating.

“At Downer, the importance we place on sustainability allows us to identify and unlock substantial long term economic, social and environmental value which has been shared with our customers and our local communities,” said Trevor Cohen, Executive Director, Downer Utilities.

John Tregear, Ararat Wind Farm Project Manager said: “Together with our customer, RES Australia, we’re excited to again lead the industry in being the first renewable energy project in Australia to register for an IS rating. It will enable us to measure our sustainability performance in constructing a Wind Farm and serve as a benchmark for the industry. IS will allow us to push ahead of industry

best practice when it comes to building sustainable infrastructure.”

Over the coming months, the project team will be working on their IS As Built rating submission, measuring and capturing sustainability initiatives and practices on the project.

Downer was the first company in Australia to be awarded with an Excellent IS rating. We are also the only company to be awarded with IS Design, IS As Built and IS Operational IS ratings. Our Whitsundays Sewerage Treatment Plant Upgrade project is also the first project to achieve both IS Design and IS As Built ratings\*.

## More about ISCA and IS

The Infrastructure Sustainability Council of Australia (ISCA) is the peak industry body for advancing sustainability in infrastructure. It is a member-based, not-for-profit public and private industry council that has developed and administers the Infrastructure Sustainability (IS) rating scheme. IS is Australia’s only comprehensive rating system for evaluating sustainability across planning, design, construction and operation of infrastructure. For more information, visit <http://www.isca.org.au/> ■

\*The Whitsundays Sewerage Treatment Plant Upgrade project was awarded an IS Design rating in April 2013 and an IS As Built in August 2014.



## Employee profile

### Ellen O'Brien

#### What is your role?

Group Manager Sustainability and Governance.

#### How long have you been with Downer?

Almost 6 years.

#### What are your qualifications and experience?

I have a Bachelor of Science in Botany & Microbiology, Master of Science in Marine Biology, an MBA and I am a Certified Environmental Practitioner. I have worked in scientific research, State and Local government and as an environmental consultant in the mining and infrastructure sectors.

#### What do you enjoy most about your job?

Influencing people to take more responsibility for how they manage the sustainability and environmental impacts of Downer's work.

#### What challenges do you face in your job?

How to influence people to accept responsibility for their actions and how these have an impact on our social and natural environment.

#### What's your favourite movie / novel?

I have just finished reading "Lost and Found", a debut novel by Australian Brooke Davis – very entertaining, so it's my favourite at the moment.

#### If they could bottle your personality, what would the label read?

70% dark chocolate.

#### Two things I can't live without are...

Coffee and my sunglasses.

#### If I could have a dinner party and invite any four people, dead or alive, the guest list would be...

Rachel Carson, David Suzuki, Desmond Tutu and Aung San Suu Kyi. ■



# Fence protects local fauna

Well done to Jason Vella (External Works Manager, Infrastructure Services) and the Roads team on the NSW Roads and Maritime Services (RMS) Performance Specified Maintenance Contract (PSMC) who worked in partnership with our customer, NSW RMS, and the Wildlife Roadkill Prevention Association (WRPA) to plan and construct a 98 metre fauna fence along the Wakehurst Parkway through the Oxford Falls Regional Crown Reserve, a well-known hot spot for animal strikes.

The installation of the fence has been completed and will reduce the risk of animals wandering out onto the road and being struck by moving vehicles and improve driver safety. ■



The 98 metre fauna fence installed along the Wakehurst Parkway.



Neva Poole (Chair of the Wildlife Roadkill Prevention Association); Jason Vella (Downer) and Maziar Neyakivi (RMS Project/Contract Manager CMO).



The pest weed signage spotted by Barry McLaughlan.



Barry was awarded a STAR award for his efforts in identifying the environmental hazard.

# Stop work action saves local flora and fauna

**A Grader Operator chose to stop work and call his Area Manager (SA - Eyre/Flinders Road Maintenance) after spotting a very obscure sign on the side of the road that stated “Pest Weed”. His proactive and positive action subsequently prevented the destruction of our native flora and fauna and a potential financial penalty from the regulator.**

Barry McLaughlan, a 19 years’ service stalwart of Downer, became a STAR in December 2015 when he called his Area Manager to question the Stack Site location he was about to prepare for upcoming works. The Stack Site is a common site used by the road authority in South Australia (Department of Planning, Transport and Infrastructure or DPTI) and the presence of the significant weed, Buffel Grass, was not known.

Weeds are amongst the most serious threats to Australia’s natural environment and primary production industries. They displace native species, contribute significantly to land degradation and reduce farm and

forest productivity. It is estimated that weed invasion has a cost to Australia’s agriculture of over \$2.5 billion per annum.

Barry has an excellent understanding of the local land and the significant weeds in the area due to his experience and the training provided by Downer and DPTI. When asked, Barry stated he “*values the land and wants to preserve the land for future generations*”.

The “Pest Weed” sign indicated only 40 metres of the Stack Site contained the Buffel Grass. Following confirmation from DPTI, Barry was able to continue preparing the remainder of the Stack Site that didn’t contain the weed for the upcoming works. ■

## Environmental Principle 7

Take steps to prevent the spread of weeds and pests



***Barry’s Area Manager, Isaac Christian, actively promotes and enforces the Environmental Principles and believes in encouraging his team to make ‘the phone call’ when there is a potential risk to the environment that can’t be immediately controlled.***

**Well done Barry!**



# Downer's solar CCTV solution guarantees community safety at Australia Day Skyworks 2016

You might wonder what solar powered CCTV has to do with firework safety, but our very own solar powered CCTV unit called the MU3000 does just that!

Engineered and manufactured by our EC&M business, the MU3000 was deployed at Australia's biggest fireworks show for Australia Day in Perth, WA earlier this year. The unit was set up at Sir James Mitchell Park in South Perth where cameras monitored the area for three days leading up to the fireworks display without the need to

run generators, power cables or permanent infrastructure. The fully self-sufficient MU3000 uses solar panels to power cameras, storage and communications, while the battery back-up allows the MU3000 to run for 24 hours...and it can continue to run for a further seven days if there's no sun.

The City of South Perth was able to log into the CCTV system via laptops, tablets and mobile phones to view and control cameras. High definition PTZ cameras were mounted onto the top of the hydraulically operated rotatable mast which offered a 360° view. Image stabilisation on the cameras meant that any vibration from wind on the solar panels was suppressed for high quality images day and night. With the MU3000 designed to be used in publically accessible areas, the solar panels were mounted out of reach approximately half way up the mast and clear of lower obstructions to the sun such as vehicles and mid-sized trees.

Dene Lawrence from the City of South Perth said,

***"The CCTV trailer was very easy to set up and use and was deployed in a matter of minutes by only one person. Remote login via 4G meant that live images were readily accessible 24 hours a day from anywhere with phone coverage. We plan to utilise more of these units in the future for our outdoor public events."***

The MU3000 can be mounted on a range of fit for purpose trailers which are designed to meet customers' specific needs and the panels are positioned to allow for easy cleaning. MU3000's have been installed in a wide range of locations including remote mine sites to deliver CCTV and network communications.

Congratulations to the team on a great result for Australia Day fireworks in WA and their innovative work with the MU3000.

For more information, contact Gavin Aquino office on **+618 9318 9114** or **0418 717 085** or email **Gavin.Aquino@downergroup.com**. ■



The MU3000 in action at the Perth Australia Day Skyworks.





Sunswift, the UNSW solar racing car team.

# Update on Downer sponsored solar car – Sunswift

**Downer was proud to be a sponsor of the UNSW Solar Racing Team – Sunswift which competed in the 2015 Bridgestone World Solar Challenge with their solar car eVe.**

Competing against other solar vehicles from all over the globe, eVe raced on a gruelling 3000 kilometre course, from Darwin to Adelaide, with points awarded for both speed and practicality.

Sunswift managed fourth position in the Cruiser Class, beaten by TU Eindhoven (Netherlands), Kogakuin University (Japan) and Bochum (Germany).

eVe is the world’s fastest electric car over 500 kilometres and this year it will become the first road legal solar sports car in Australia. eVe represents a shift in solar-powered transport from conceptual, purpose-built race cars to those capable of meeting commercial vehicle standards of performance, comfort and safety.

***eVe demonstrates the viability of solar technology in the emerging electric vehicle market and how Australian students can make an impact with global significance.***

Well done to the Sunswift team, Downer is proud to support you! ■



eVe – The UNSW solar racing car



# The ACT starts trialling our Low Carbon Asphalt

In close partnership with Roads ACT we've commenced trialling low-carbon asphalt that has up to 30% recycled content from reclaimed asphalt pavement and toner from recycled printing cartridges.

Kelleway Avenue in Nicholls was the latest site in Canberra to be resurfaced with a low-carbon "warm" mix.

General Manager Road Surfacing (ACT & NSW), Gana Varendran, said that current practice in the Territory sees Hot Mix Asphalt (HMA) used with a low recycled content of about 10%.

"We're very pleased to work with Roads ACT to lead the way in using Low Carbon Asphalt in the Territory that takes recycled content up to 30%. This is achieved by combining Reclaimed Asphalt Pavement, reduced temperature produced Warm Mix Asphalt,

and toner from recycled printing cartridges," said Gana.

*"This new benchmark in sustainable asphalt in the Territory will support the ACT Government's Waste Management Strategy (2011-2025) in reducing waste and recovering valuable resources to achieve a sustainable carbon-neutral Canberra."*

The low-carbon asphalt is made at our Hume facility, and demonstrates that with progressive and environmentally conscious suppliers and customers, we can bring innovative, and sustainable benefits to our local communities.

"Our relationship with Roads ACT is one of a trusted partnership where we will continue to work collaboratively in bringing initiatives like these to the local community," added Gana. ■



**HVAC units in passenger trains contain R407C, a hydro fluorocarbon (HFC) gas which is a known SGG. Downer's importation of these air-conditioning units cannot be conducted without a controlled substances licence.**



## Ozone protection licences

**Under the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989*, Downer's Rail business has recently re-obtained a licence to import and export substances that contain synthetic greenhouse gases.**

To ensure Australia meets legal obligations under the *Montreal Protocol on Substances that Deplete the Ozone Layer* and the *United Nations Framework Convention on Climate Change*, any manufacturing, import and export activities involving the movement of Ozone Depleting Substances and Synthetic Greenhouse Gases (SGG) or products that contain these materials are regulated via the licensing framework.

The typical heating, ventilation and air conditioning (HVAC) units of passenger trains contain R407C, a hydro fluorocarbon (HFC) gas which is a known SGG. Downer's importation of these air-conditioning units cannot be conducted without a controlled substances licence.

Downer's licencing obligations include:

- Only importing/ exporting from a country that has ratified the Montreal Protocol and relevant subsequent amendments;
- Quarterly reporting to the Minister of the Department of Environment;
- Quarterly reporting to *Refrigerant Reclaim Australia* and participation with the product stewardship program; and
- Payment of levies.

***Failure to comply could result in the suspension of our importing activities and therefore inability to provide our customers with reliable passenger train services.*** ■

**Manufacturing/import/export activities that Downer engage in that may attract licensing under the act include:**

- electrical equipment pre-charged with sulphur hexafluoride (SF6)
- equipment/vehicles with an air conditioning or containing refrigerant gases

Should you have any queries or concerns, please contact your Downer Environmental representative.



# Fortescue Marsh

When we talk about our value 'Zero Harm', this does not mean just protecting ourselves from harm – we also have a duty of care as an organisation and as individuals to protect the indigenous heritage and natural environment in which we conduct our work.

Christmas Creek mine is situated amongst some significant natural areas – in particular, the Fortescue Marsh. Our Environment Officers play an integral role in ensuring the work we do at the mine is not impacting this ecological community. Dale Thomas, environmental graduate, tells us more.

## Fortescue Marsh is located in the Fortescue Valley in the heart of the Pilbara.

Set between the Chichester and Hamersley Ranges, the marsh forms part of several mining ventures which all surround the marsh. The marsh becomes regularly inundated with water and, when it floods, it can occupy an area of 100,000 hectares. The large lakes that form in the wet season can persist for up to 12 months attracting a hugely diverse array of species, which is one of the reasons why the marsh has been identified as *Priority Ecological Community* and is listed on the *Directory of Important Wetlands of Australia* as a wetland of national significance.

The diverse ecosystem includes endemic flora and fauna and supports a rich diversity of restricted aquatic and terrestrial invertebrates. Fortescue Marsh is also important as a nesting ground for a number of migrating bird species, including the Australian Pelican, the Black Swan, the Great Egret and the Straw-neck Ibis. Significant flora found at the marsh includes Mulga and also the fringing Samphire communities which are surface water dependant. In fact, three of the Samphire species are not found anywhere else in Australia.

The mine has the potential to impact the marsh in a number of ways, the most important of which are:

- the transport of sediment from disturbed soils in the mining area;
- the transport of pollution from mining;
- the loss or reduction of groundwater in the area from our use; and
- the introduction of invasive weed species into the area.

We have, however, put in place many important controls for these risks, and others, to ensure this important ecosystem remains untouched by our mining activities.

The environment team conducts monthly sampling and analysis of water from the marsh. There are two monitoring locations where samples are taken from to be analysed (Moorimooridini and Kulbee Creek). Water quality monitoring occurs to ensure there are no hydrocarbons present or that contaminated stormwater or other contaminates flow into the Fortescue Marshes from the mine's operations.

Downer is proud of its commitment to protect and preserve the environments in which we operate. ■



Monitoring contaminants at Fortescue Marsh.

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