

# Your water solutions



***“Downer provides  
complete water  
lifecycle solutions  
for urban water and  
wastewater service  
providers.”***





## About us

Downer is the leading provider of integrated services in Australia and New Zealand.

At Downer, our customers are at the heart of everything we do. Our Purpose is to create and sustain the modern environment by building trusted relationships with our customers.

Our Promise is to work closely with our customers to help them succeed, using world-leading insights and solutions.

## Our water services

Downer is the largest provider of outsourced water services in Australia and New Zealand.

Our services include design, construction, operations, maintenance and meter reading across water and wastewater treatment, water and wastewater networks and biosolids management.

We are a leading provider of asset management and asset maintenance services, supporting our customers across the full asset lifecycle, from conceptual development through to design, construction, commissioning and into operations and maintenance.

With a history dating back over 150 years, Downer is listed on the Australian Securities Exchange and New Zealand Stock Exchange as Downer EDI Limited (DOW).

Downer Group employs approximately 45,000 people across more than 300 sites, primarily in Australia and New Zealand.

We collaborate with our customers to manage their assets, so they create community benefits that are sustainable, innovative, cost-effective and provide value to all stakeholders.

We have a demonstrated track record of delivering our core services in long-term partnerships for key customers, including Logan Water, Urban Utilities, Sydney Water, Icon Water, Melbourne Water, City West Water and Yarra Valley Water.

## The Downer difference

Downer's ability to offer our customers a one-stop-shop with the full spectrum of services they require makes us unique in Australia's water market.

While Downer is a dedicated water business, we have the added advantage of leveraging the combined capabilities that the wider Downer Group provides

to other industries. By integrating the capabilities of the entire Downer Group, we can offer our customers complete end-to-end solutions.

This is a unique value add that only Downer can offer, and is our market differentiator.

### Relationships creating success

This is Downer's tagline – and we live and breathe it every day.

We focus on building long-term relationships with key customers. Our partnerships with some customers date back 20 years... and many of our current contracts will stretch a decade into the future.



First accredited  
**ISO 55001**  
**Certification**  
for Asset Management

**Operate and maintain our customers' assets – water and wastewater treatment plants and networks.**



Awarded Design, As Built and Operations Infrastructure Sustainability ratings in recognition of our sustainability leadership

Delivered over  
**\$1.3 billion\***  
worth of water infrastructure projects in the last  
**five years**

\* (FY16- FY20)



# Our services

Downer provides water services including design, construction, operation and maintenance to deliver whole-of-life solutions tailored to our customers' needs.



## Asset management and maintenance

As a leading provider of asset management services in the water industry, Downer has the capability from local personnel to senior management and engineering resources to ensure that our customers' assets are maintained to their optimum performance.

Downer Group has a proud history of successfully delivering long-term maintenance contracts across a range of industries. We utilise the learnings and experience of these teams to provide best practice solutions to our customers in the water industry.

Our ability to successfully deliver long-term maintenance to water assets is demonstrated by the services we are currently delivering for Urban Utilities and Sydney Water.



## Water and wastewater networks

Downer provides complete water and wastewater network management from monitoring and inspection, through to design, rehabilitation and construction. Downer has in-house patented solutions and access to world-leading relining technologies to ensure customers' assets will provide service beyond their original design life.

For example, our Berolina glass fibre reinforced structural liner solution is a jointless, seamless, pipe-within-a-pipe trenchless capability to rehabilitate existing pipes with minimal diameter reduction. Our patented Tunneline solution is a simple but unique structural concrete lining solution that provides a full insitu low environmental impact rehabilitation solution for stormwater culverts, tunnels and structures, including difficult-to-access sites.



## Wastewater treatment

Downer is a major delivery partner of wastewater treatment facilities, having designed and constructed over 80 treatment plants throughout Australia and New Zealand. Downer's in-house process engineers are at the forefront of wastewater treatment and have developed process innovations which make Downer's solutions some of the lowest whole-of-life cost solutions available to water utilities and owners.



## Design and data analytics

Downer has dedicated in-house engineering and data analytics capability, which includes process design, mechanical and electrical, civil, digital engineering (BIM) and Supervisory Control and Data Acquisition (SCADA) systems.

These capabilities underpin our service offerings, delivering value-added solutions and driving optimal whole-of-life performance for our customers.



## Metering services

Through our Skilltech brand, Downer is Australia's most experienced and trusted metering services company, providing metering and field support services to water, power and gas utilities across Australia's domestic, commercial and industrial markets.

Skilltech conducts approximately 12 million water meter reads in Australia each year.

We are known for delivering safe, innovative and cost-effective solutions for our customers, and are industry leaders in metering services, technology solutions, data capture and monitoring, auditing and informational insights that improve customer outcomes.

Skilltech services many of Australia's largest water asset owners including City of Gold Coast Council, SA Water, Urban Utilities, Sydney Water and Barwon Water.



## Biosolids

Downer offers customers numerous options for treatment, reducing or recycling biosolids through the use of technologies from thickening, dewatering or pyrolysis. Downer engineers can tailor a solution which will provide the greatest value for money to our customers, taking into account all key factors from disposal through to operating costs and providing customers with sustainable alternatives.

## Our customers

Downer's customers trust us to ensure the availability of essential services to their customers.

We partner with a range of customers from small water asset owners through to Australia and New Zealand's largest water utilities.

As our customers and the water market have changed, Downer has changed with them. Our service offering has evolved from simple

individual panels of work to complete packages and long-term programs delivered in true partnership with our customers.

The following case studies demonstrate our commitment to building long-term relationships with our customers – evolving with them to meet their changing needs, and partnering with them to deliver outstanding services to end-customers.

### Sydney Water



Confluence Water is a joint venture between Downer, Ventia and Jacobs, which is one of three consortia that were awarded long-term contracts to deliver services under Sydney Water's Partnering for Success program in 2019.

Confluence Water delivers design, construction, maintenance and facilities management services in Sydney Water's North region, which stretches from Sydney Harbour to the Hawkesbury River and includes the Hills Shire.

The program of work will be delivered over a 10-year period, with Confluence Water responsible for the maintenance, renewal and upgrade of existing assets

in the region, as well as the construction of new assets, such as pipelines, pump stations and wastewater treatment plants.

This program is a new way of delivering work, facilitated by the NEC4 contracting model, which has enabled the integration of Downer and Sydney Water to develop procurement and project management together, with improvements in flexibility, clarity and ease of administration.

This partnership expands Downer's relationship with Sydney Water, which started with small opportunities through the NFRP panel and individual projects, and has now evolved into being a major service provider.

### Logan City Council



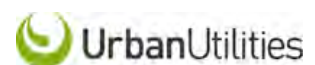
Downer has a long-standing relationship with Logan City Council (LCC), operating under a variety of alliance models.

In 2020, Downer was awarded a five-year contract to partner with LCC in the Logan Water Partnership to deliver planning, design, delivery and program management services for water, sewerage and treatment assets in the region.

This is the third alliance model that LCC has entered into with Downer, underlying the mutual trust and respect we share.

From 2009-2014, Downer partnered with LCC in the Logan Water Alliance, which delivered \$302 million of infrastructure. This was replaced by the Logan Water Infrastructure Alliance, which delivered approximately \$435 million of infrastructure between 2014-2020. The Logan Water Partnership commenced in 2020 and will continue to be delivered in collaboration with a fully integrated LCC team and sub-alliance partners WSP and Cardno.

### Urban Utilities



Utilita Water Solutions is a joint venture between Downer and Ventia, which has been delivering electrical, mechanical and civil maintenance services for Urban Utilities (UU) since 2016.

UU is one of the largest water distributor-retailers in Australia, supplying drinking water, recycled water and sewerage services to a population of more than 1.4 million across Brisbane, Ipswich, Lockyer Valley, Scenic Rim and Somerset.

In addition to the Utilita joint venture, Downer was also awarded two Capital Works Programs in 2020 to renew water and wastewater infrastructure for UU over the next five years. The scope of work to be carried out by Downer in the Water Southern Zones Program (WSZP) and Wastewater Regional Program (WWRP) includes both new construction and renewal of pipelines, pump stations and facilities. Work on the WSZP also includes reservoir renewals, while WWRP includes sewer renewals and pump station work in regional areas.



## Melbourne Water



Downer partners with Abergeldie and Stantec in the Safety Focused Performance Joint Venture (SFPJV) delivering services under the Water and Sewerage Capital Works program for Melbourne Water.

Downer is the Principal Contractor providing civil, mechanical and electrical capabilities.

The SFPJV is one of two consortia delivering a range of design and

construct and pipeline rehabilitation projects over a three-year period commencing in 2018, with an option to extend the agreement for up to seven more years.

In late-2018, Downer stepped into the SFPJV after one of the consortia partners went into administration. Downer has successfully transitioned into an existing team and worked collaboratively with our new partners to improve performance outcomes for our customer.

## Greater Western Water



On 1 July 2021, Western Water (WW) and City West Water (CWW) will combine to form Greater Western Water.

Downer has long-standing relationships with both CWW and WW, and will evolve our service offerings as the two entities integrate to form a new water corporation to service the fast-growing region west of Melbourne.

In 2019, Downer delivered the \$53 million upgrade of the Sunbury Recycled Water Plant, the largest capital works project in Western Water's history. We designed and built the plant in a brownfield

environment, and are now delivering a long-term contract to operate and maintain the world-class facility for up to 15 years.

Downer has delivered water mains replacement and rehabilitation for CWW since 2014. In January 2021, we commenced a new contract to deliver the replacement or rehabilitation of water and sewer pipelines across the CWW service area for a term of up to seven years. Downer's relationship with CWW has been galvanised by a collaborative approach to improving safety outcomes.

## Yarra Valley Water



Downer's relationship with Yarra Valley Water (YVW) began to 2010, when we commenced delivering work for their Water Renewals Program.

Our relationship with YVW has matured in that time through strong safety results, a collaborative approach and aligned expectations in planning and delivery of works. This resulted in a contract renewal in 2016 for three years which was subsequently extended for a further four years.

Under this contract, Downer delivers water pipeline renewals across YVW's network, and we recently expanded our services to deliver flow meter replacements. Downer also delivers work for YVW's Hard Surface Reinstatement program, and has recently been awarded a two-year extension based on current performance standards.

We have also worked closely with YVW to focus on circular economy initiatives, including the use of crushed glass as bedding material for their sewer pipeline.



## Icon Water



Downer has partnered with Icon Water for over 10 years, delivering water and sewerage infrastructure into the ACT via an alliance arrangement.

The program of work includes a number of upgrades on the Lower Molonglo Water Quality Control Centre (LMWQCC).

In 2018, Downer was also awarded a five-year contract with Icon Water to renew 19 kilometres of water mains throughout the ACT.

## Innovation and thought leadership

Thought leadership is about remaining at the forefront of our industry, employing the best people and having the courage to challenge the status quo. It's something we live and breathe in our water team.

From new concept projects to modifications, upgrades and renewals, we are dedicated to delivering innovative construction solutions to help our customers achieve their operational objectives.

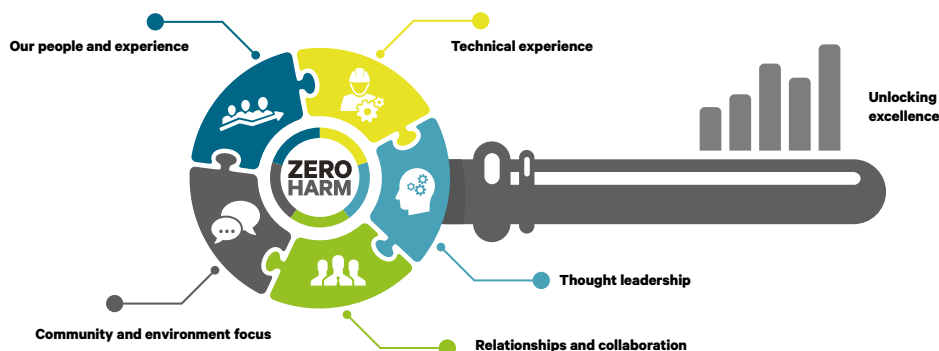
With minimal disruption to active services and surrounding environments, we work closely with our customers to ensure collaboration through all stages of the project.

From irrigation schemes stretching hundreds of kilometres to the design and build of award-winning treatment plants, we have the right skills and knowledge to exceed our customers' expectations.

Downer is pioneering the use of cutting edge technology including artificial intelligence, unmanned aerial vehicles (drones) and predictive analytics to deliver our services safer and more efficiently.

We are implementing predictive maintenance technology across our organisation to improve outcomes for our customers. We are successfully using sensors to enable predictive analytics to not only pre-empt failures, but also extend maintenance cycles based on asset operating performance. Using sensors to monitor the condition of assets allows us to extend the frequency of maintenance in some assets and also identify potential failures in equipment before they occur.

Downer also partners with industry bodies in research initiatives, such as the NSW Smart Sensing Network (NSSN)'s *Advanced Pipe Sensing to Reduce Leaks and Breaks* program. This initiative has been successful in advancing cutting-edge solutions to pipe leaking and breakage in water networks, which will result in better outcomes for our customers.



## Asset management

Downer is committed to achieving global best practice in asset management.

In 2015, Downer became the first organisation to achieve certification to ISO 55001 in Australia and New Zealand, for Utilities Asset Management Services at the Melbourne Cricket Club's Yarra Park Water Recycling Facility. Three years later, we became the first company to achieve recertification at the same facility.

Since then, Downer has achieved certification to ISO 55001 across multiple industries. These certifications help ensure we apply best practice

to support our customers through the full lifecycle of their assets – from initial feasibility and design through to production and operations, and eventual decommissioning.

We understand that many of our customers are under ever-increasing pressure to get more out of their assets. They need to manage financial constraints, forecast lifetime costs, limit unnecessary maintenance and future-proof their assets. More than ever, they need intelligent partners like Downer who can provide data-driven solutions to enable their assets to optimise business objectives.







## Turning human waste into energy

Downer has partnered with our customer Logan City Council and delivery partner Pyrocal to create an Australian first by successfully converting a by-product of wastewater treatment into energy and a beneficial product for farmers.

The cutting edge Loganholme Wastewater Treatment Plant (WWTP) thermally treats biosolids, producing biochar, destroying dangerous contaminants while generating substantial energy from a waste product.

During 2020, the first full-scale trial was conducted to determine the effectiveness of gasification to reliably and safely process biosolids. The dried feed material is carbonised producing a sterile biochar, while contaminants such as PFAS and micro-plastics are vaporised and combusted, destroying these pollutants while producing substantial renewable heat energy. This energy is recovered to provide heat for the drying stage pre-gasification.

Gasification of biosolids reduces their volume by 90 per cent, thereby providing considerable savings in transport and disposal costs. At Loganholme WWTP, these operating cost savings are forecast to be approximately \$500,000 annually.

The resulting biochar is a non-odorous, easily handled and sustainable product. Plant-available phosphorus concentrations within the biochar make it an ideal soil improver, comparable to commercial fertilisers for the agricultural and forestry sectors. Due to carbon being fixed within the biochar, the gasification process will reduce CO<sub>2</sub> output at Loganholme WWTP by 4,800 tonnes annually and may possibly be categorised as a pathway to carbon sequestration in the future. Logan City Council is exploring opportunities to market their forecast biochar production once the permanent facility comes online.

The plant and process is safe, does not require complex technical supervision and operation, and can be fitted to existing or new WWTPs. Downer can design the process to accept primary sludge, digested biosolids, stockpiled materials, freshly dewatered waste activated sludge, or a combination of all four.



## Sustainable solutions to reduce operational costs

Downer delivers complete water services for our customers. And, by leveraging the capabilities of the wider Downer Group, we can expand our offering to provide additional value beyond traditional water services that deliver ongoing cost savings for our customers.

One example is the Rubyanna Wastewater Treatment Plant in Queensland, which is the largest infrastructure project ever undertaken by Bundaberg Regional Council (BRC).

Design, construction and commissioning of the WWTP was completed by Downer in 2018 to replace an ageing and environmentally unsound plant at East Bundaberg.

The plant incorporates innovative design and new technologies, including an integrated onsite solar farm for renewable power generation which increases the plant's sustainability credentials and reduces operating expenses for BRC.

Downer leveraged our broader business capabilities to install the solar PV system, which generates 803 MWh of renewable electricity per annum.

Solar generation is typically providing 100 per cent of plant's power demand between 8am and 4pm each day, and more than 40 per cent of overall demand.

The Rubyanna WWTP system is believed to be the largest output solar PV system currently installed onsite at a wastewater treatment plant in Australia. In addition, the installation can be expanded when battery storage technology becomes economically viable and tailored for renewable energy to provide an even greater proportion of the overall treatment plant demand – and further reduce ongoing operating expenses.







## Safety and sustainability

Sustaining the quality of our environment, our water supplies and our natural waterways is vital to being both a valued contributor to the communities in which we operate and a responsible employer.

Downer's sustainability commitment focuses on delivering our works with Zero Harm to our people, our communities and the environment. We strive to achieve this by understanding and responding to emerging global risks and opportunities, engaging with our stakeholders and developing proactive partnerships within our value chain. We publish our performance in our annual Sustainability Report.

Downer is considered a sustainability leader in the water industry.

We achieved the first Infrastructure Sustainability Council of Australia (ISCA) 'Design' Excellent rating for the Whitsundays WWTP upgrades. We also achieved the first 'As Built' Excellent rating and the first 'Operations' Excellent rating for the Yarra Park Recycled Water Facility. By becoming the first to achieve a number of ISCA ratings, we have demonstrated that sustainability innovation is achievable, cost-effective and, indeed, is a compelling value proposition for a project, an operator and the asset owner.

Downer fosters long-term partnerships with our customers and suppliers, working with them to find innovative solutions. Together we identify and implement

new, cleaner technologies that will also provide value for money over the life of our customers' infrastructure assets.

We also leverage the expertise from other parts of the Downer Group to bring innovative sustainability solutions to our water customers.

For example, over the past two years, we have managed all waste products from our Yarra Valley Water project, delivering the waste to our Repurpose It joint venture plant in Melbourne. Repurpose It is a waste-to-resource business, which operates Australia's first construction and demolition washing facility, creating a range of engineered and organic products to replace virgin materials. This value-add initiative is helping YVW recycle waste and reduce their carbon footprint.

But our approach to sustainability extends beyond our commitment to Zero Harm to our people and the environment.

To Downer, sustainability also means having a diverse and inclusive workforce, developing our people and enhancing the liveability of the communities we are part of.



## Helping young athletes chase their dreams

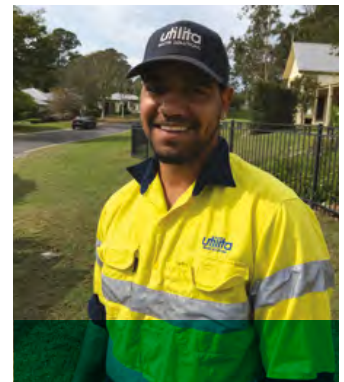
The Utilita joint venture between Downer and Ventia delivers electrical, mechanical and civil maintenance services for Urban Utilities in South East Queensland.

The JV is also delivering a unique employment package to support young Indigenous athletes who move to the region to follow their sporting dreams.

In 2020, Utilita joined forces with iconic Queensland Cup rugby league club, Ipswich Jets, to provide employment opportunities for Indigenous players recruited to the club from regional areas.

The program is proving successful in supporting young athletes from remote communities as they navigate the life-changing move to the city. There are currently four Jets players employed by Utilita, with plans to expand the program in the future.

In 2021, Utilita expanded its relationship with Ipswich to include sponsorship of the Jets' netball team. Utilita is proud to be supporting females in sport and sees this partnership as an opportunity to raise awareness of the water industry to a new audience and promote non-traditional careers in technical and trade streams to females.



*Dominic Macumboy is learning new skills on and off the football field after relocating from Lockhart River in far north Queensland to sign with Ipswich Jets and take up employment with Utilita.*



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