

RESOURCING THE WORLD WITH SUSTAINABLE WATER SOLUTIONS



CONTENTS

01	INTRODUCTION.	04
02	VEOLIA SERVICES.	08
03	GLOBAL EXPERIENCE. LOCAL EXPERTISE.	10
04	OUR DEMONSTRATED CAPABILITY.	14
05	OUR APPROACH.	18
06	IMPACTFUL SOLUTIONS.	20
07	OUR BUSINESS.	24



01 INTRODUCTION

CREATE A SUSTAINABLE FUTURE

With ageing water infrastructure, rising customer expectations and climate change impacts, we are seeing sustainability drivers increase and budgets become tighter. We understand the challenges faced by industry, municipalities and water authorities around the globe.

We're here to support water authorities and businesses, increase **operational efficiency**, improve **customer service** while **delivering value** across all stages of the water cycle. We look after all aspects of resource and asset management including the production and delivery of drinking water, industrial process water collection, the treatment and recycling of wastewater and its by-products. We're here to **preserve the environment and create a sustainable future for all**.

Our Water division provides employment for over **830 employees across Australia and New Zealand**, and we pride ourselves on the diversity and quality of our team. We are also part of a larger global team, made up of some of the most sought after water experts around the globe.



01 INTRODUCTION

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AUSTRALIA AND NEW ZEALAND KEY WATER FIGURES:*



144,904 THOUSAND

m3 of drinking water produced



76,910 thousand

m3 of wastewater treated



We operate, maintain
or support over

130 individual

water and wastewater
treatment facility



We produce more than
3,700 m3
of industrial/recycled water



We removed more than
22,500 TONNES
of salt from wastewater
to support mining operations



We maintain almost
5,000km
of wastewater and stormwater
networks annually



We avoided
105 TONNES
of carbon dioxide emissions
from entering the atmosphere



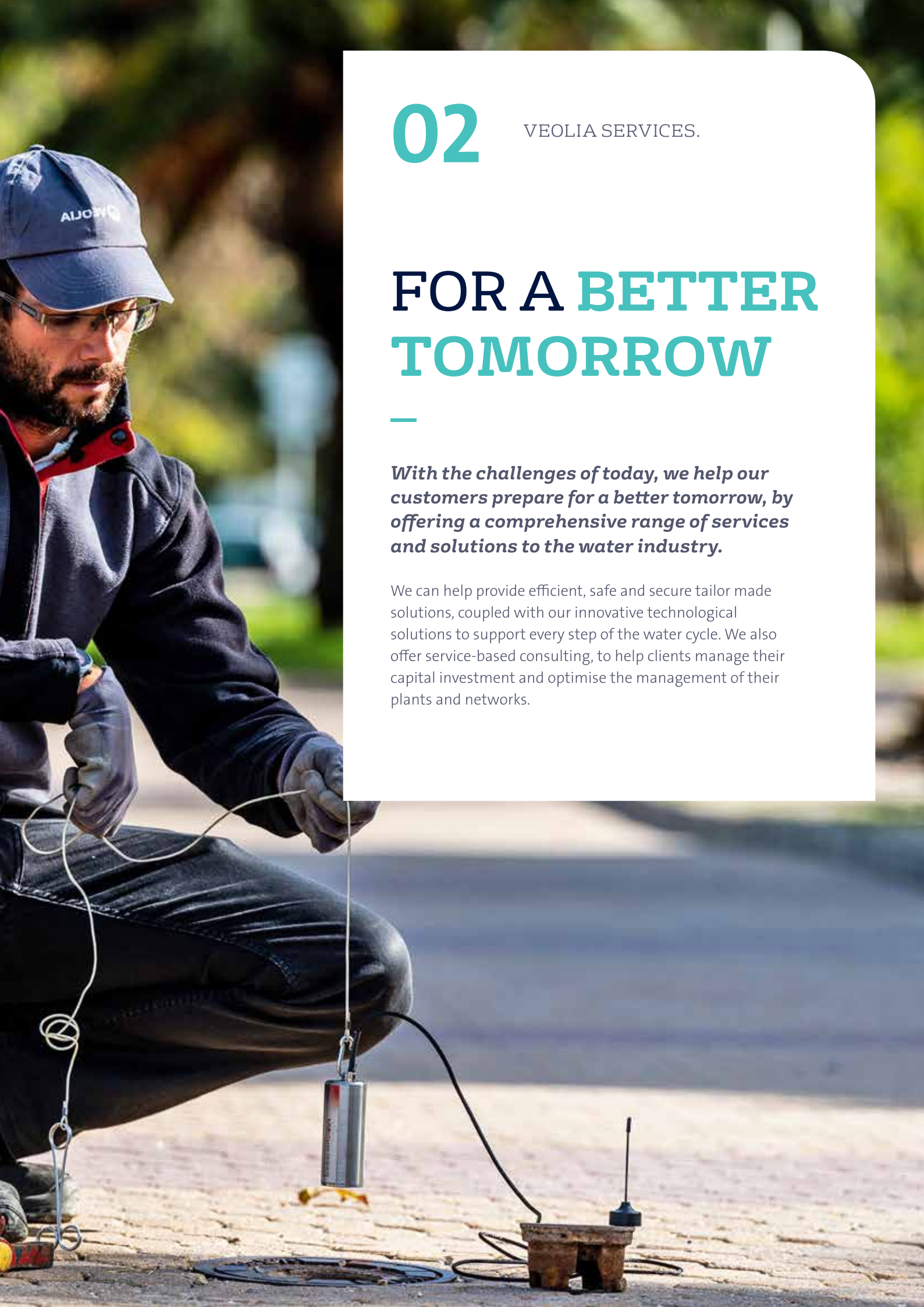
We service a number of
industry verticals,
ranging from healthcare, mining
water utilities, pharmaceutical,
agriculture, manufacturing, food
and beverage, oil and gas and more



We operate and
maintain more than
A\$5 BILLION
of water assets across
Australia and New Zealand

*2020 Figures for Australia and New Zealand





02

VEOLIA SERVICES.

FOR A BETTER TOMORROW

With the challenges of today, we help our customers prepare for a better tomorrow, by offering a comprehensive range of services and solutions to the water industry.

We can help provide efficient, safe and secure tailor made solutions, coupled with our innovative technological solutions to support every step of the water cycle. We also offer service-based consulting, to help clients manage their capital investment and optimise the management of their plants and networks.

OUR KEY WATER CAPABILITIES INCLUDE:





03

GLOBAL EXPERIENCE.
LOCAL EXPERTISE.

OUR GLOBAL EXPERIENCE AND LOCAL EXPERTISE

We understand the needs of our customers are diverse, so we work with you to develop an approach to suit your objectives, using our global experience and local expertise.

Veolia's global network of 135 business units, underpins, our fast response capability and implementation of our local solutions.

Veolia's resolute commitment to ecological transformation, means it can respond to the highly complex conditions of tomorrow's world. Veolia has adapted its business activities in water, energy and waste management, so it can better support its customers in their own transformations. Nobody in isolation, can tackle all these challenges. Veolia works together with its customers to address issues, while preserving natural resources and combating the climate emergency.

Against this worrying background, water. As the number one marker of climate change, it's central to every challenge: 90% of natural disasters are caused by, or have an impact on, water resources. So, water activities are central to ecological transformation and is vital if we are to move to lower carbon lifestyles.

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HELP ACHIEVE SUSTAINABILITY OBJECTIVES

We help clients reach their environmental goals by reusing, recycling and extracting value from water and wastewater resources. This includes supporting net zero carbon targets.



ACHIEVE OPTIMUM ASSET PERFORMANCE AND RESILIENCE

We help customers achieve reliable and optimised asset performance to deliver long-term value, while coping with extreme weather events and infrastructure planning to meet urban growth challenges.



MAKE INFORMED INVESTMENT DECISIONS

We help customers unlock data and expertise to help them make effective investment decisions on their assets, or achieve long-term savings while staying ahead of regulations.



REDUCE OPTIONAL RISK

We help customers manage safety, environmental and performance risks to ensure ongoing compliance, business continuity and minimum exposure to costly incidents.



ENHANCE CUSTOMER EXPERIENCE

Veolia is committed to providing the highest level of customer service for water utilities, industries and their communities, through transparency and support of their activities.





04

OUR DEMONSTRATED
CAPABILITY

YOUR SUCCESS IS OUR SUCCESS

*We're here to support you in achieving
your future goals.*



ASSET MANAGEMENT, OPERATION AND MAINTENANCE

Today, water utilities and industries face increasing cost pressures, with a lower tolerance for operational failure or plant downtime. Our skilled team specialise in assessing the functional requirements of your assets, and recommend ways to improve performance while managing costs. We also offer bespoke project delivery models without compromising on quality.



04

OUR DEMONSTRATED CAPABILITY

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NETWORK OPERATIONS AND INFRASTRUCTURE

Our expert team of network service technicians provide a complete solution: pipeline condition assessment and analysis, maintenance, rehabilitation and replacement. We deploy safe, efficient and innovative technologies using our global reach, knowledge and capability.



SMART WATER SERVICES

Our Smart Water range of offers have been designed to support water authorities and industries to improve their water network management and infrastructure. They offer more than standard maintenance services or equipment supply, by offering unique innovations which are tailored to suit your water operation's needs.

In response to the challenges of the 21st century, Veolia's range of Hubgrade Smart Digital Solutions can be used to remotely display, assess and optimise the management of water.



ENGINEERING AND TECHNICAL DELIVERY

Our skilled team of technical engineers and scientists can identify cost effective technical solutions, and advise on a fit-for-purpose approach. They can provide support on process, design, build, upgrade strategies and asset commissioning. Our team is well versed in over 350 proprietary technologies, and can recommend the best approach to achieve your business and operational performance goals.



RESEARCH AND DEVELOPMENT

For Veolia, innovation is one of our key priorities. Our research and development activities are crucial for the success of our innovations, increasing our ability to react to changes and discover new opportunities for our customers, often providing them with a competitive advantage.

Our research activities in Australia and New Zealand, target the development of new knowledge in markets where we operate, and address critical areas of uncertainty associated with operational and project risk. At a global level, Veolia undertakes research to develop knowledge and technologies, to facilitate our goal of becoming the global leader in ecological transformation.



STUDIES AND PROJECT MANAGEMENT

The successful roll out of water projects requires skilled planning and execution, and an in-depth understanding of your business and it's challenges. By utilising Veolia's in-house Project Management Framework, our team of project managers can support simple to complex projects, and deliver safe, cost effective and reliable solutions. Our team has worked across thousands of water projects around the globe - ranging from highly complex infrastructure projects, to more project based or operational in nature. Our team can advise on a fit-for-purpose water management strategy, feasibility studies, and leading practice asset management, with the ability to tap into a global team of experts to solve even the most unique or complex challenges.



CIRCULAR ECONOMY

The circular economy redefines our traditional economic model - based on the linear "extract - produce - consume - throw" system - which has now reached its limits. By saving its resources, a circular city promotes growth, creates jobs, secures its supplies and reduces its carbon emissions. In local loops, it encourages local actors to recycle and extend the duration of use of materials. It sets up functional savings by sharing infrastructure and services.

Veolia sets up operational solutions and new business models that encourage the development of local circular economies across water, waste and energy. This approach is at the heart of its strategic ambition and vision of "Resourcing the world".





05 OUR APPROACH

TAKE CARE OF OUR PLANET

We understand that in order for humans to prosper, we need to take care of our planet - the two are inextricably interconnected.

WE'RE SOLUTIONS DRIVEN, AND TECHNOLOGY AGNOSTIC.

Our flexible approach is designed to deliver the right solution for our customers, no matter how large or small. Our local team, together with our connected global community, means you'll be heard and your systems valued and optimised - no matter how simple or complex your challenge.

WE'RE SAFETY FOCUSED.

Veolia has an enviable safety record, and we follow gold standard procedures to protect this. The safety of our customers, our people and yours, is our number one priority and underpins everything we do.

WE'RE COMMITTED TO EXCELLENCE.

This is demonstrated in our Always Safe mantra, and accreditations across a range of standards, including: ISO 9001 (Business Systems), ISO 14001 (Environment), ISO 45000 (Safety), ISO 22000 (HACCP Water) and ISO 55000 (Asset Management).

WE'RE COMMITTED TO SUSTAINABILITY.

Our approach to sustainability is central to our business. We focus on fostering and supporting sustainable outcomes, not only for the company, but for our clients and the local communities in which we operate and live.

WE'RE DEDICATED TO SERVICE.

Our business is built on servicing our customers. We understand your reputation is linked to ours - so we'll always go the extra mile to be the partner you can count on.



Solution Driven



Safety Focused



Committed to Sustainability



Excellence



Service



06

IMPACTFUL SOLUTIONS

QGC WATER TREATMENT PLANT OPERATIONS

*Water treatment plant operations
for coal seam gas production.*

WATER & WASTEWATER TREATMENT:

Production water treatment cycle in the complex field of unconventional oil and gas.

WATER RECYCLING:

Operation and maintenance of treatment plants and brine concentrator equipments.

THE CHALLENGE

QGC is a leading coal seam gas explorer and producer, focused on establishing the world's first project to convert coal seam gas, into liquefied natural gas - Queensland Curtis LNG (QCLNG). QGC is wholly owned by Shell, a leading player in the global energy market.

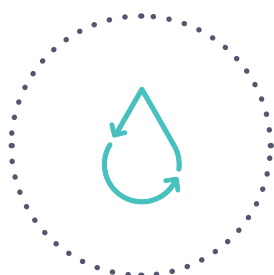
QGC was in search of a partner who could operate and maintain the company's three water treatment plants, situated in the Surat Basin, that support coal seam gas production operations.

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Treatment of
200,000 m³/d
of produced water



97%
of treated water
will be reused



Strict regulatory
compliance and improved
social acceptability

SOLUTION

MANAGING THE COMPLETE WATER TREATMENT CYCLE:

In April 2013, Veolia was successfully awarded a 20-year contract to operate and maintain QGC's three water treatment plants, which treat groundwater produced alongside natural gas. Veolia was chosen for its unique expertise in managing the complete production water treatment cycle, in the complex field of unconventional oil and gas.

Utilising a highly skilled team of 75 employees including electricians, instrument technicians, plant operators and water engineers, Veolia operates and maintains the water treatment plants ultra filtration, ion exchange, reverse osmosis and brine concentration equipment in addition to pump stations and electrical substations.

The gas field operated by QGC spans 4,500 square kilometres. Plans call for drilling of 6,000 wells by 2030 and Veolia will treat the production water of each new well brought on stream.

In all, close to 200,000 cubic metres will be treated per day (the volume of 80 Olympic swimming pools) and a very high-quality end product will be guaranteed on a long-term basis.

The production water, which is pumped up from the wells at the same time as the methane, has high salt content and must undergo complex treatment before it can be reused in industry or agriculture.

The systems and infrastructure predominantly exist on a single site and receives water from the Surat Basin regional wells. This forms an essential part of QGC's overall water strategy for the region. The water storage and transfer system consists of a number of aggregation ponds, that allows blending of the associated water from the wells. This produces a consistent water quality for feed into the water treatment facility.

Water then passes through a robust pre-treatment and ultra filtration (UF) system to remove suspended solids and biological contaminants. Following pre-treatment, ion exchange and reverse osmosis (RO) systems produce a high-quality water product suitable for reuse. To maximise the recovery for reuse, the brine stream from the RO process is transferred to a brine concentrator, that uses evaporation to extract distillate water from the RO brine.

The final treated water is then rigorously tested and continuously monitored for a large number of water quality parameters, as it enters the treated water storage, and again prior to being delivered for beneficial reuse.

THE BENEFITS:



Strict Regulatory
Compliance



Small Environmental
Footprint



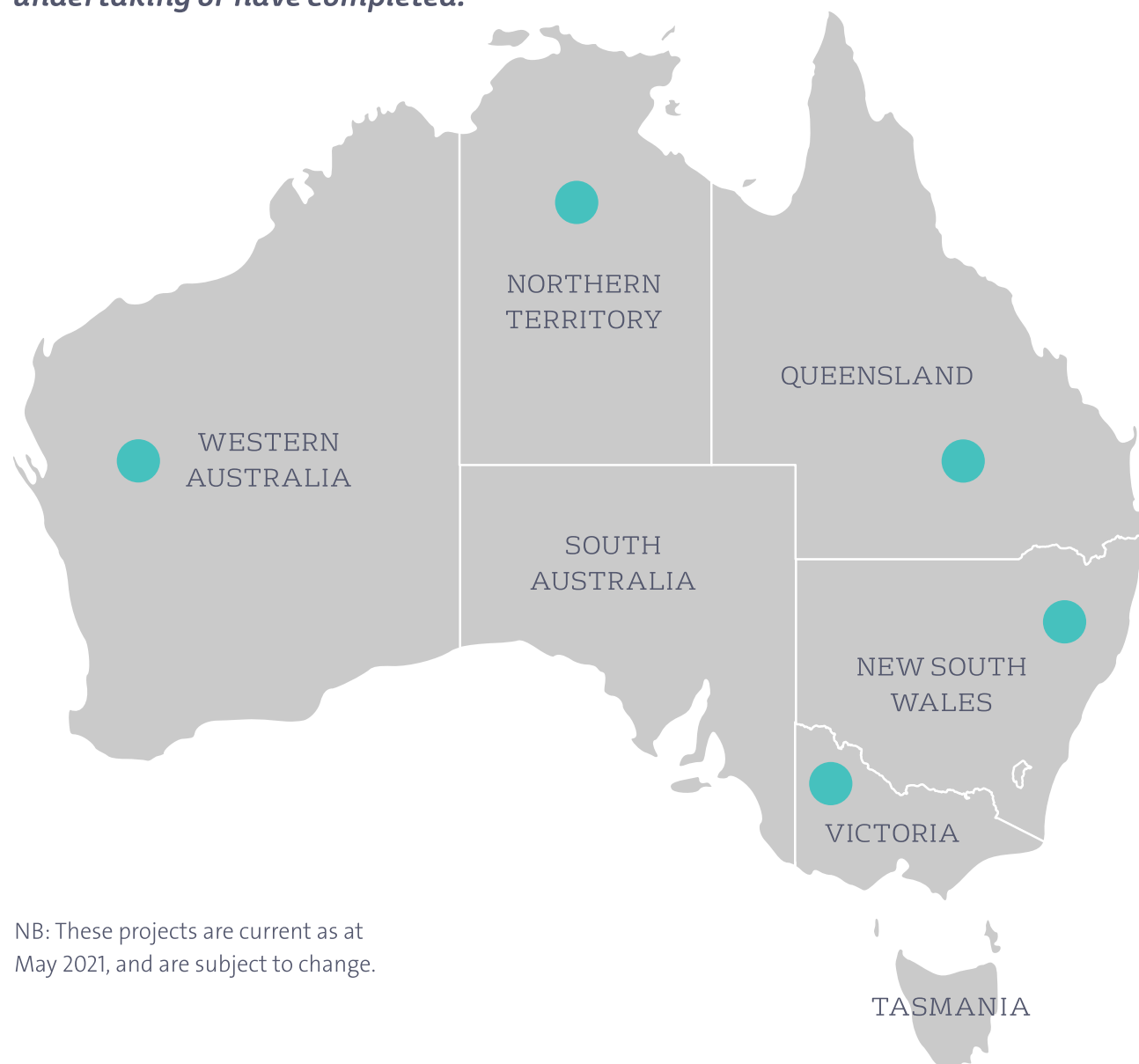
Improved Social
Acceptability



Expertise in Complex
Water Treatment
Technologies

SERVICING AUSTRALIA AND NEW ZEALAND

Veolia undertakes various work across Australia and New Zealand. Shown are just some examples of the work we are currently undertaking or have completed.



NB: These projects are current as at May 2021, and are subject to change.

New South Wales

NETWORK SERVICES

Silt and debris removal from wastewater assets including routine maintenance services, emergency response and support services. Works include dredging /cleaning of sewer grit pits, wet wells, pumping stations and wastewater, pipes and conduits.

O&M

Manage, operate and maintain (O&M) six water treatment plants, 19 wastewater treatment plants and two recycled water plants. Project manage minor capital delivery.

DBO

Design, build and operate (DBO) a sewerage scheme, sewage treatment plant and effluent reuse system, including 50km of pipelines.

BOOT

Construct and operate two water treatment plants providing drinking water to the southern Sydney and Illawarra regions.

Victoria

PROGRAM OF WORKS

Inspection, data collection and cleaning of network assets, rehabilitation of sewer and stormwater network assets, maintenance of network assets, and environmental cleanups.

Sole provider for the design and construction of water main renewals program. Works are completed by packages and carried out mainly using HDD and other trenchless technologies.

SMART WATER SERVICES

Deployment of Hubgrade Network Hypervision (HNN), a map-based interface that brings together real-time, aggregated data from all source systems including SCADA, GIS, water quality devices, work orders, CRM, and field crew GPS-tracking systems. Delivery of tailor-made AI models to predict the future location of leaks in the water network and blockages in the sewer network.

Deployment of SWARM buoys, a water quality monitoring floating device that continuously measures the concentration of different parameters, including early signals of algal bloom events across waterways, and feeds data back to water authorities in real time.

BOOT

A 20 year contract to design build, operate and maintain three advanced membrane water treatment plants and supporting infrastructure, providing a combined capacity of 152 ML/d.

D&B / O&M

Design and build a new 7.1 ML/d salt reduction plant (reverse osmosis) including 15 years of operations and maintenance of the conventional water filtration plant and the new salt reduction plant.

Queensland

NETWORK SERVICES

Provision of planned maintenance and timely reactive emergency fault response services for sewer pipe cleaning, wet-well cleaning, edging of sewerage pump stations wet-wells, grit chambers and screens, inspection and condition assessment reporting, sewage tankering, flow control, bypass pumping services and confined space entry.

O&M

Operate and maintain the largest advanced recycled water project in the southern hemisphere, including three advanced water treatment plants and associated pipelines.

DBO

Design, build and operate a 125 megalitres a day reverse osmosis desalination plant. Operations commenced in 2008.

North Territory

O&M

Operate and maintain the brine concentrator at the Ranger Mine in the heart of Kakadu National Park. Uranium has been mined at Ranger for more than three decades. The brine concentrator is a critical part of the mine closure plan, which is required to be completed by 2026.

Western Australia

D&C / O&M

Trade qualified and licensed plumbers perform onsite plumbing services, such as Water supply, Sanitary, and Drainage services.

O&M

Oily Water treatment plant and wastewater treatment plant operations and maintenance.



About Veolia Group

Veolia Group aims to be the benchmark company for ecological transformation. With nearly 179,000 employees worldwide, the Group designs and provides game-changing solutions that are both useful and practical for water, waste and energy management. Through its three complementary business activities, Veolia helps to develop access to resources, preserve available resources, and replenish them.

In 2020, the Veolia group supplied 95 million people with drinking water and 62 million people with wastewater services, produced nearly 43 million megawatt hours of energy and treated 47 million metric tons of waste. Veolia Environment (listed on Paris Euronext: VIE) recorded consolidated revenue of €26.010 billion in 2020. www.veolia.com

About Veolia ANZ

Veolia Australia and New Zealand (Veolia) is the region's only environmental solutions organisation with specific capabilities across water and wastewater treatment, energy management, waste and resource recovery services, industrial cleaning and facilities maintenance services. Veolia employs over 4,600 employees and operates across more than 200 locations within the region. www.veolia.com/anz

RESOURCING THE WORLD

www.veolia.com/anz

