Upper South Creek

Advanced Water Recycling Centre and Pipelines

Annual Sustainability Report

April 2024 –April 2025

JOHN HOLLAND

Contents

Acknowledgement of Country

John Holland respectfully acknowledges Aboriginal people as the traditional custodians of Sydney, Illawarra and the Blue Mountains where we work, live and learn.

Their lore, traditions, and customs nurtured and continue to nurture the waters (bulingang or saltwater and muulii ngadyuung or sweetwater) in our operating area, creating well-being for all.

We pay our deepest respect to Elders, past and present. We acknowledge their deep connections to land and waters. In the spirit of reconciliation, we remain committed to working in partnership with local Traditional Owners to ensure their ongoing contribution to the future of the water management landscape, learning from traditional and contemporary approaches, while maintaining and respecting their cultural and spiritual connections.

Wianamatta

Wianamatta, meaning "Mothers place" in Dharug language, or otherwise known as 'South Creek', is a creek that runs from Dharawal Country in the south to Dharug Country in the north, and Eastern Creek, flowing into the Hawkesbury, and Prospect Creek draining into the Georges River. Wianamatta connects with a large and complex network of tributaries including creeks and streams and borders the Upper South Creek Advanced Water Recycling Centre site.

Aboriginal People have nurtured Wianamatta for thousands of years, and in return Country has provided everything needed to live. Wianamatta is important to Dharug People and the health of water must be maintained and protected. Evidence suggests that the junction of Kemps Creek, the Georges River and Wianamatta was traditionally used as a gathering area.

Jordan Lovegrove, Ngarrindjeri, of Dreamtime Creative.

Dharug Country

The Dharug people are the Traditional Custodians of Country in the Project area. As Traditional Custodians, the Dharug people have had a continual connection to Country since time immemorial, and strong custodial obligations and responsibilities to care for Country in this area.

The Cumberland Plain

The Cumberland Plain consists of hills, valleys and ridges which encompass Wianamatta and create a complex system of passing water. The Cumberland Plain stretches from Windsor in the north to Picton in the south, and from the Nepean River in the west across to the inner west of metropolitan Sydney.

The Cumberland Plain is characterised by grassy woodlands of eucalypts, gums and ironbarks with an undergrowth of many grass variations and a variety of wildlife. There are many culturally significant areas on Dharug Country such as viewpoints, scar trees, resource rich areas, and gathering places. Salt Pan Creek is an example of an important historical gathering place located along the north shore of the Georges River on the traditional Country of Pemulwuy, an Aboriginal Resistance Leader and important historical figure.

1 Introduction

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1.1
Project Background

The Upper South Creek Annual Sustainability Report (2024/2025) showcases sustainability targets, initiatives, and processes that have been established and implemented by the Upper South Creek Advanced Water Recycling Centre and associated pipelines Project. The report focuses on the Project's key sustainability areas and highlights the progress made during the reporting period.

The Project Sustainability commitments, objectives, and associated targets were codified with the Infrastructure Sustainability Council's "Materiality Assessment" and John Holland Group's corporate sustainability commitments. These targets also align with the United Nations (UN) Sustainable Development Goals (SDGs), are consistent with Sydney Water's Sustainability Policies, and are set out in the Project's Sustainability Management Plan (SMP).

We self-declare that this Report has been prepared in reference to the Global Reporting Initiative's (GRI) Standards. It sets out the Non-Owner Participant (NOP)'s organisational profile, purpose of the report and Project details, and showcases the Project's sustainability targets and achievements to date under John Holland's key sustainability pillars.

John Holland has been engaged as the principal contractor by Sydney Water to design and construct Stage 1 of the Upper South Creek Project. Specifically, this includes the design and construction of the Advanced Water Recycling Centre (AWRC) and pipelines for treating a daily wastewater flow of up to 35 ML/day.

John Holland has engaged a design joint venture comprising GHD and Jacobs to deliver the project design and provide overall engineering and design services. Sydney Water has additionally selected a joint venture consisting of TRILITY and John Holland Group (John Holland) that will provide operations and maintenance input during design and construction and will be responsible for operating the AWRC during its first five years.

John Holland is delivering this Project with a Design and Construct (D&C) portion and an Operations and Maintenance (O&M) portion. This report focuses on the D&C activities. The project is currently in the construction phase, with construction of the plant forecast for completion by December 2025.

The pipeline works were completed in the fourth quarter of 2024, and the major design phase was finalised by late December 2024. Process commissioning is scheduled to commence in early Q1 2026, with project completion and handover to the operator for plant operations expected in Q4 2026.

The Annual Report includes several impactful case studies from the reporting period, which are listed in the Table of Contents for reference. These include both new case studies and updates to those included in the 2023/2024 report.

2 Project Description

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2.1
Project Description

The Upper South Creek Advanced Water Recycling Centre (AWRC) and Pipelines Project will collect wastewater from homes and businesses in the South West Growth Area and Western Sydney Aerotropolis Growth Area. It will treat the wastewater to produce high-quality treated water suitable for a wide range of non-potable uses in homes, industry, businesses, and agriculture.

Additionally, the treated water will be utilised for greening public open spaces and released into local waterways, such as the Nepean River, to sustain and support the health of important river ecosystems. These ecosystems continue to face significant pressure from extreme weather events.

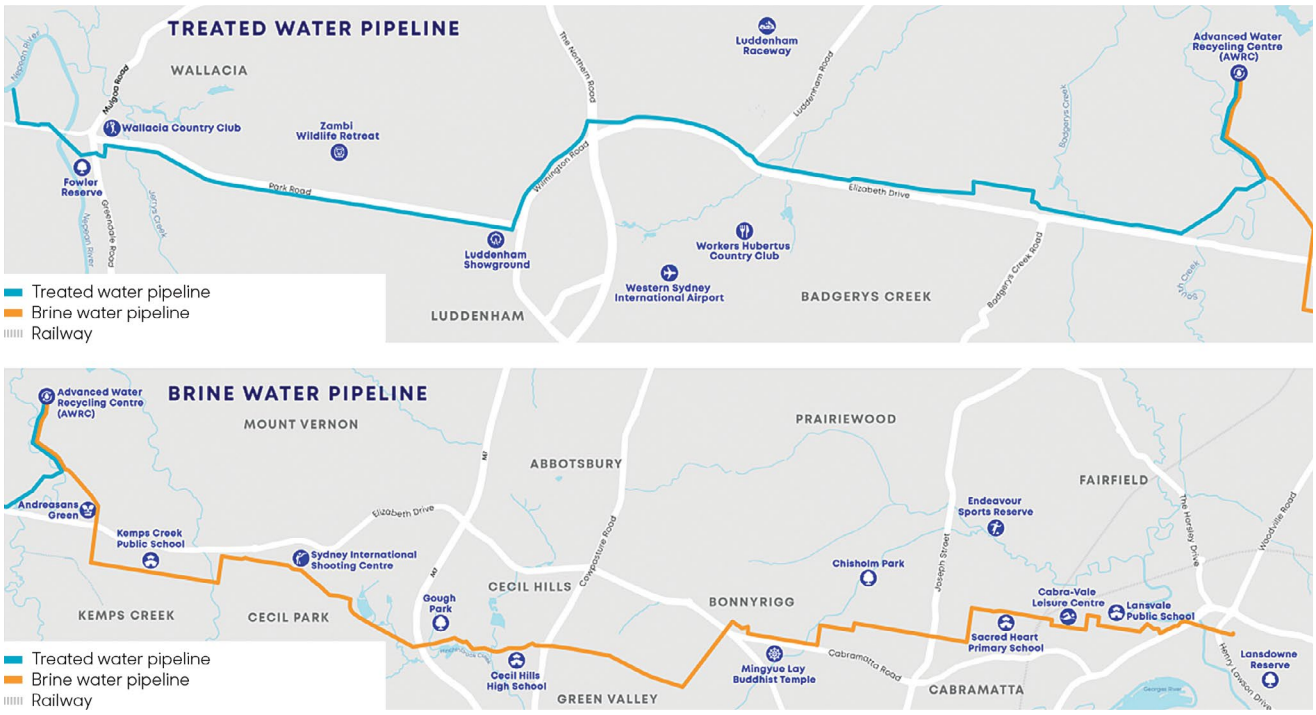
The scope of the Project has remained consistent with the last year of reporting and includes:

- A new Advanced Water Recycling Centre in Kemps Creek.
- A 17 kilometre pipeline to release high-quality treated water to the Nepean River at Wallacia.
- A 24 kilometre pipeline to take the plant's saline by-product (brine) to the existing North Georges River Submain (NGRS) at Lansdowne.
- Associated ancillary infrastructure.

The AWRC site is approximately 78 hectares in size and is in the suburb of Kemps Creek, NSW, bounded by Wianamatta-South Creek to the west, Kemps Creek to the northeast, and the new M12 Motorway to the south. The site will include an operational area and a green space area.

The Project has been classified State Significant Infrastructure (SSI) and will help achieve a range of Commonwealth, NSW, local government, and Sydney Water objectives relating to economic development, growth, water resilience and environmental protection:

- Providing efficient and cost-effective wastewater services
- Producing high-quality, recycled water for a range of potential non-drinking reuses
- Potential to recycle organic waste to generate electricity
- Helping to protect local waterways and aquatic ecosystems via environmental flows
- Producing biosolids as an alternative to chemical fertilisers in agriculture
- Enhancing biodiversity by greening Western Sydney with recycled water
- Generating renewable energy within the AWRC
- Building a centre that can respond and adapt to changes in demand as the community grows.



2.1.1
Current Stage of Works

An overview of the key milestones and activities progressing during the reporting period are detailed below:

Project Component	Key Dates
Contract Award	September 2022
Initiation of the Procurement Phase	January 2023
Project Design Phase Ongoing	September 2022 – December 2024
Construction Phase - AWRC	Q3 2023 – Q4 2025
Construction Phase - Pipelines	Q3 2023 – Q4 2024
Process Commissioning	Q1 2026 – Q4 2026
Handover to Operations	Q4 2026

2.1.2
Status of Project Infrastructure Sustainability (IS) Certification

The project's materiality assessment has been verified, and the SMP has been approved and implemented. During this reporting period, the project's sustainability team issued the Design Round 1 rating submission. They are currently progressing with their response to Round 1 comments and working towards ensuring relevant As-Built rating requirements are fulfilled.

Estimated reductions are based on the resource models (energy, material, and water) and reduction targets that have been submitted to the ISC for verification, as detailed in Sections 6, 7, and 13.

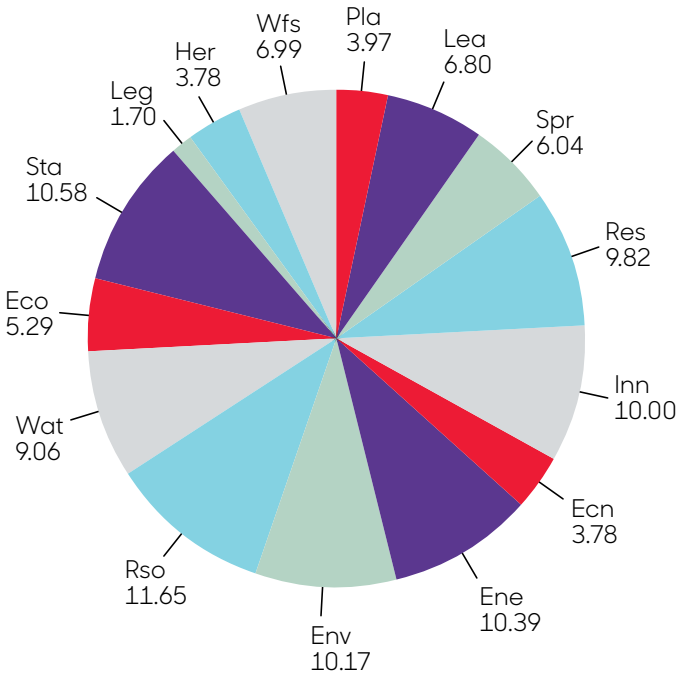
IS Deliverable	Key Dates
Infrastructure Sustainability Council (ISC) Materiality Verification	April 2023
Approved Sustainability Management Plan	April 2023
Project Establishment Period Completion	April 2023
Design Round 1 submitted for verification	April 2025
Design Round 2 submitted for verification	September 2025
As Built Round 1 submitted for verification	December 2025
As Built Round 2 submitted for verification	March 2026

2.2
Key Sustainability Impacts

John Holland integrates sustainability in design and construction as an integral part of the D&C process, alongside safety, program, cost, stakeholder engagement, and several other factors of concern. The Project's sustainability focus was formalised through the materiality assessment undertaken in November 2022 as part of the Infrastructure Sustainability rating process for certification. This process identified material sustainability issues for the project and was completed with a broad representation of internal (senior discipline leads) and relevant external stakeholders.

This materiality assessment has remained unchanged since that initial verification.

Final Category Points Distribution



Her – Heritage
Wfs – Workforce Sustainability
Pla – Place
Lea – Leadership
Spr – Sustainable Procurement
Res – Resilience
Inn – Innovation
Ecn – Economic
Ene – Energy
Env – Environmental
Rso – Resources
Wat – Water
Eco – Ecology
Sta – Stakeholder
Leg – Legacy

2.3 Key Project Delivery Risks

Several key sustainability-related risks were identified for the D&C phase of the Upper South Creek project, including:

- Community disruption through the construction phase of the development
- Skills shortages in roles required to construct the Project
- Vulnerability to natural hazards and the longer-term impact of climate change
- Potential for unapproved negative impacts to flora and fauna protected by the Environment Protection and Biodiversity Conservation (EPBC) Act and/or Biodiversity Conservation (BC) Act
- The development sites are situated near residential and commercial dwellings sensitive to construction impacts such as noise and vibration
- Risk of impacting water resources through surface water pollution due to construction impacts
- Controlling the quality and compliance of materials brought to site.

During construction and delivery of the project, each risk was assessed and mitigation measures were identified, developed, and implemented. Ongoing risk monitoring has been undertaken throughout delivery.

2.4 Key Sustainability Opportunities and Project Benefits

As outlined in section 2.1, the AWRC will produce high-quality recycled water, suitable for a wide range of non-drinking uses in homes, for various industrial uses, in businesses, in agriculture, and for watering of public open spaces. This saves valuable drinking water and provides increased resilience to Sydney's water supply networks.

Given the high-quality nature of the water once treated, it can be released to the Nepean River to help sustain an important river ecosystem that continues to come under significant pressure from climatic changes and development within its catchment.

In addition to the benefits inherent to the project scope, outlined in Section 2.1 above, the following additional positive operational impacts have been identified for the Upper South Creek Project:

- Restoration of the Project's Green Space and riparian corridor to support the NSW Government's vision of a green spine along Wianamatta-South Creek (in line with the Green Grid Strategy developed by the Government Architect of NSW), whilst still providing a functional asset that can serve the community for decades to come. The Wianamatta-South Creek corridor is a key feature of the Aerotropolis and critical to the achievement of the envisioned cool and green city.
- Delivering a landscape-led design to seamlessly connect the AWRC to the wider precinct.
- Incorporating Traditional Custodian language into site and road naming to promote cultural heritage and reconciliation.
- Development and delivery of a high-quality asset powered by 50% site-generated solar energy, with 30% less embodied emissions, a 30% reduction in water use, and 85% reliance on non-potable water sources over the whole-of-life of the asset's operations.
- Delivery of a high-quality recycled water product suitable for future diverse non-potable uses, supporting industrial, agricultural, and public open space needs, while improving instream water quality at the Nepean River, enhancing regional ecological health and resilience.
- Collaboration with partners to integrate opportunities for First Nations engagement, employment, and participation, while also working with local businesses that support diverse groups. Where such opportunities are absent, leveraging our networks to establish partnerships and deliver best-practice outcomes that create meaningful opportunities for wider communities.
- Leveraging and trialling cutting-edge technologies, such as hydrogen-powered generators and recycled materials, to drive efficiency, reduce emissions, and set new benchmarks for sustainable infrastructure. Implementing advanced water-sensitive urban design and operational efficiencies to achieve significant reductions in potable water use and maximise the reuse of non-potable water sources.

And construction phase benefit:

- Sustainability has been a core principle of the design, to achieve an ISC 2.1 Gold Rating in support of Sydney Water's net zero ambitions.

Further information on these opportunities, actions, and mitigations is contained within subsequent sections of this report.

3 Purpose of this Report

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The intent of this report is to fulfil project-specific annual reporting requirements for:

- Delivery in alignment with the SMP.
- Sustainability target tracking.
- Diversity and Inclusion annual performance reporting.
- Showcasing sustainability achievements of the Project.
- ISC annual reporting and tracking IS v2.1 Rating progress.

This report is publicly available on Sydney Water's Upper South Creek Project webpage and details the sustainability-related Project achievements and progress against the Project's Sustainability Objectives and Targets for the reporting period. This report is to be read as part of the Project's wider annual reporting. The reporting period covered in this report is from the 27th April 2024 to the 26th April 2025, building on the 2023/2024 report published last year.

In addition, this report details how the Project contributes to the United Nations Sustainable Development Goals (SDGs) and has been prepared in alignment with Global Reporting Initiative (GRI) Standards. Material topics reported have been determined through Upper South Creek's Sustainability Strategic Framework themes and objectives.

3.1 External Assurance of Sustainability Reporting

A driving principle for the Project's sustainability reporting is providing transparency and accountability for our sustainability performance. As part of that commitment, the Project sought external assurance for its sustainability reporting.

This aligns with the principles outlined in the Global Reporting Initiative (GRI) Standards, specifically Disclosure 2-5 in GRI 2: General Disclosures 2021, which requires organisations to describe their policy and practice for seeking external assurance. For the 2024/2025 reporting period, the USC Project engaged Wrixon Consulting Pty Ltd, an independent and qualified auditor, to conduct an external review of the Annual Sustainability Report.

The assurance process was undertaken to validate the accuracy, completeness, and quality of the reported sustainability performance, ensuring alignment with the GRI Standards (2022) and the Infrastructure Sustainability Council's IS version 2.1 criteria. The scope of the external assurance included:

- Validation of reported performance data against source documentation and tracking registers.
- Assessment of the report's adherence to GRI principles, including accuracy, balance, clarity, comparability, completeness, sustainability context, timeliness, and verifiability.
- Evaluation of the alignment of the Project's sustainability targets and outcomes with the United Nations Sustainable Development Goals (UN SDGs).
- Review of the Project's response to recommendations from the previous year's independent review.

The independent review concluded:

"The reported sustainability performance in the USC Project Annual Sustainability Report 2024/2025 has been prepared, in all material respects, in accordance with the principles of reporting in the Global Reporting Initiative (2022). Based on the review of the Comments Register and the updated report, all findings, recommendations, and improvements have been appropriately addressed and closed out."

This external assurance process reinforces the USC Project's commitment to robust sustainability reporting, continuous improvement, and alignment with global best practices.

4 Organisational Profile

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4.1 Organisation Details

Project	Upper South Creek AWRC and Pipelines
Name of Organisation	Upper South Creek Project is being delivered by John Holland Pty Ltd for the client Sydney Water
ABN	11 004 282 268
Project Office Address	28 Badu Muru Grove, Kemps Creek, Sydney, NSW 2178, Australia
John Holland Corporate Address	Level 9, 180 Flinders Street, Melbourne VIC 3000, Australia
Principle Project Director	Richard Ioffrida
Contact Details	Mark Trethewy (Sustainability Manager) mark.trethewy@jhg.com.au Richard Ioffrida (Project Director) richard.ioffrida@jhg.com.au
Reporting Period	April 2024 – April 2025
Type and Stage of Works	Design and construction of water infrastructure. The Project is currently in the construction phase, with the completion of construction of the plant expected in December 2025. The pipeline works were completed in the fourth quarter of 2024, and the major design phase was finalised by late December 2024. Process commissioning is scheduled to commence in early Q1 2026, with Project completion and handover to the operator for plant operations planned for Q4 2026. For more details, please refer to Section 2.1.1.

4.2 Governance Structure

The John Holland Management Committee provides oversight and governance for the Project. It has remained unchanged in format from Project commencement and comprises two members from John Holland Group, one member from TRILITY and one member from the design partner GHD.

The responsibilities of the Management Committee members are to:

- Ensure Sydney Water specifications, Engineering and Construction Contract (ECC) and the O&M Contract conditions are met.
- Ensure the intent of the JV Agreement is upheld and the interface between D&C and O&M is effectively managed.
- Monitor the progress of the Project – contract program, budget, safety, quality, environment, and operability.
- Monitor client satisfaction and the health of the relationship with Sydney Water and stakeholders.
- Empower the Project Director and Operation and Maintenance Manager to deliver all aspects of the Project.
- Hold the Project Director accountable for all aspects of project performance.
- Continuously review risks associated with this Project and recommend mitigation strategies.
- Resolve issues that are escalated by the Project Director or Operation and Maintenance Manager or wider stakeholders.
- Influence the culture of the Project team.
- Keep the respective Joint Venture Partners informed of the project performance.

The Project has adopted John Holland Group's corporate governance practices on the Project.
The organisational chart contained in Appendix C details the senior leadership structure within the Project.

4.2.1
Roles and Responsibilities

The Project's SMP outlines the overarching project structure for managing and promoting sustainability on the Project. Table 1 below outlines key roles and responsibilities:

Project Role / Position	Sustainability Responsibility
Project Management Committee (MC)	The Project's Management Committee oversees performance against and adherence to the required specifications, contractual requirements, and Project progress requirements. This includes integration of sustainability and achievement of overall sustainability targets.
Project Director (PD)	The Project Director has ultimate responsibility for ensuring sustainability is integrated into relevant aspects of the Project's design and delivery. Specific targets include: ■ Achievement of a 'Gold' IS v2.1 Rating. ■ Achievement of 5 innovation points under the rating. ■ Integration of sustainability into project decision-making.
Engineering Manager (EM)	Responsible for integrating sustainability initiatives into the Project's design, with targets including: ■ 30% reduction in energy use/demand from the Base Case scenario (design). ■ 25% reduction in water demand from the Base Case scenario. ■ 45% reduction in material life cycle impacts from a Base Case scenario. The Engineering Manager's responsibilities extend to additional targets relating to resource efficiency, sustainable design outcomes, and sustainability in operations.
Construction Director (CD)	Responsible for integrating sustainability initiatives into the Project's construction, with targets including: ■ 30% reduction in energy use/demand from Base Case scenario (delivery). ■ Landfill diversion rates for set waste types (70% office, 80% inert waste, and 95% excavation spoil). ■ 100% of contaminated material is effectively managed. The Construction Director also has responsibilities related to noise and vibration control, heritage management through delivery, and other environmental pollution prevention requirements.
Sustainability Manager (SM)	The Project's Sustainability manager has responsibility for overseeing the identification, development, and implementation of sustainability initiatives. This extends to the management of quotidian aspects of sustainability implementation, monitoring, collaboration, and reporting.
Community and Stakeholder Engagement Director (CSED)	The Project's Community and Stakeholder Engagement Director oversees liaison, collaboration, and informing the local and wider community of Project decisions and impacts. They will ensure that these community members are included in Project decision in the areas and to the extent appropriate. This position also fulfills the role of Public Liaison Officer.
Community and Stakeholder Engagement Director (CSED)	Responsible for formulating and implementing the diversity and inclusion strategy, with support from the wider Project team, to ensure achievement of diversity and inclusion outcomes.
People Lead (PL)	Responsible for formulating and implementing the diversity and inclusion strategy, with support from the wider Project team, to ensure achievement of diversity and inclusion outcomes.

4.3
Stakeholder and Community Engagement

4.3.1
Identifying and Selecting Stakeholders

The Project conducted a Stakeholder Analysis prior to the commencement of the Project. This included a social and demographic assessment and an assessment of proposed and existing major projects in the region.

Key social and demographic information indicates:

- A smaller (and just slightly older) population compared to those living near other major construction projects in Sydney.
- Fewer First Nations peoples compared to the NSW average.
- The top languages spoken at home being other than English.
- Limited print and social media opportunities, with Luddenham being a more online community than Kemps Creek and Badgerys Creek.
- People are much more likely to drive to work, making traffic impacts and congestion a key area of concern.

4.3.2
List of Stakeholder Groups

The key stakeholders (grouped for the purposes of this report) are listed below. Further details can be found within the publicly available Project Community and Stakeholder Engagement Plan (CSEP):

- First Nations groups.
- First Nations Advisory Group (appointed following an Expression of Interest (EOI) process).
- Local Government Authorities (Canterbury-Bankstown, Fairfield, Liverpool, Penrith, Wollondilly).
- Known businesses nearby.
- Culturally and Linguistically Diverse (CALD) Communities.
- Directly Impacted Landowners.
- Indirectly Impacted Communities.
- Local Community Interest Groups.
- Schools and Childcare Centres.
- Commonwealth Government.
- State Government Members of Parliament and agencies.
- Property Developers.

4.3.3
Approach to Stakeholder Engagement

The engagement approach during construction of the AWRC and Pipelines has been influenced by:

- Sydney Water's planning phase Community and Stakeholder Engagement Plan.
- Upper South Creek Environmental Impact Statement (EIS) and NSW Department of Planning's Conditions of Approval.
- Sydney Water's Policy and Guidelines for Community and Stakeholder Engagement.
- Sydney Water's community and stakeholder risk assessment tool.
- NSW Department of Planning and Environment's Undertaking Engagement Guidelines for State Significant Projects.
- International Association for Public Participation's (IAP2) core values and code of ethics.
- Recognise Country Guidelines for development in the Aerotropolis.
- Infrastructure Sustainability Council's v2.1 rating tool requirements.
- Engagement outcomes from the Project EIS and Submissions Report.
- Information from the Australian Bureau of Statistics 2021 Census data and community engagement strategies from local councils.
- Feedback from stakeholders throughout detailed design and Project delivery.

The overall approach to engagement is based on understanding stakeholder expectations, providing relevant and timely updates on Project progress, and working closely with the Project team and stakeholders to minimise impacts wherever possible.

Stakeholders have changed as the Project has moved through its various stages, including completion of pipeline construction at the end of 2024, completion of all major concrete pours and earthmoving at the AWRC and ramp-up of electrical and mechanical fit-out at the AWRC in preparation for the start of commissioning in Q1 2026.

Stakeholder expectations and areas of interest have been documented in the stakeholder analysis tables in the Community and Stakeholder Engagement Plan (CSEP) based on past engagement outcomes, including from the EIS and Submissions Report.

Priority issues for stakeholders were identified and formally documented during the initial site investigations and detailed design stage of the Project. The team has continued to address these issues throughout construction and will seek to understand and address any changes in priority issues as the Project moves towards completion in 2026.

Given the nature and location of the work, the level of likely public interest and the potential impacts, the engagement approach has ranged from 'inform' to 'involve' on the IAP2 Public Participation Spectrum.

For most stakeholders we engage at the 'consult' level of the spectrum. By engaging at the 'consult' level, our team will continue to work with the community and stakeholders to ensure that concerns and aspirations are listened to, acknowledged, and addressed, and will provide feedback on how stakeholder input influenced the Project. Opportunities to move beyond 'consult' and 'involve' approaches, including in relation to the future use and management of the Green Space, are continuing to be explored.

Our approach to managing community enquiries and complaints is in accordance with Sydney Water's Complaint Policy. It includes information about how enquiries and complaints can be made, complaint management procedures, response times, reporting and escalation procedures.

4.3.4 Key Topics and Concerns Raised

The risk assessments were substantially revised in mid-2025 to reflect the progress of construction delivery. The main issues identified by the AWRC risk assessment, stakeholder research and other analysis detailed within the Project CSEP include:

- Construction impacts for properties near the AWRC and properties along major transport routes (particularly on Clifton Avenue and Elizabeth Drive) – reduced risk rating as civil works are complete, though potential impacts still exist relating to noise, dust, visual, vibration, business impacts, traffic congestion, public safety, spreading of weeds, parking and access impacts.
- Light vehicle movements will also decrease in Q1 2026 as commissioning of the AWRC commences.
- Major civil activities have been completed and no new ground will be disturbed during completion of the Project, reducing potential impacts to Aboriginal cultural heritage including undiscovered artefacts and waterways.
- Substantial engagement has been undertaken with First Nations stakeholders who have provided guidance on future use of the Green Space, restoration of the riparian zone along Wianamatta-South Creek and repatriation of artefacts found during salvage to Country.
- Operational impacts of an AWRC including perceived impacts to property values, concerns about operational odour and noise, wildlife management, visual impacts, glint and glare for pilots, light spill, the co-generation gas flare, urban heat, transport of chemicals and increased traffic.
- The residual risk rating has been reduced following consultation with the nearest neighbours about expected operational impacts following completion of operational modelling.
- Potential impacts to other heritage items including remnants of the Fleurs radio telescope arrays. A heritage interpretation plan has been developed for the site which defines the initiatives that will be implemented to interpret the non-Indigenous heritage of the site. Engagement has commenced with First Nations stakeholders and is planned with the CSIRO and other government stakeholders.
- Sydney Water is continuing to negotiate easements with landowners that have Project assets on their property. The Project team is continuing to proactively manage relationships to retain support for commissioning and maintenance activities on properties.
- Construction and consultation fatigue from this and other projects including Western Sydney Airport, Sydney Metro, M12 and the Elizabeth Drive upgrade. The residual risk rating has been kept at moderate as all listed projects are still under construction or in planning.

Strategies and actions to address these issues have been identified and outlined within the Project's CSEP. Performance against KPIs relating to stakeholder engagement, such as received complaints, is reported in Section 12 below.

4.4
Sustainability Framework and Approach

4.4.1
Sydney Water Sustainability Context

Sydney Water is committed to protect, restore, and enhance the environment for its customers and communities. The organisation creates a better life through world-class water services, including essential and sustainable water and wastewater products and services to customers.

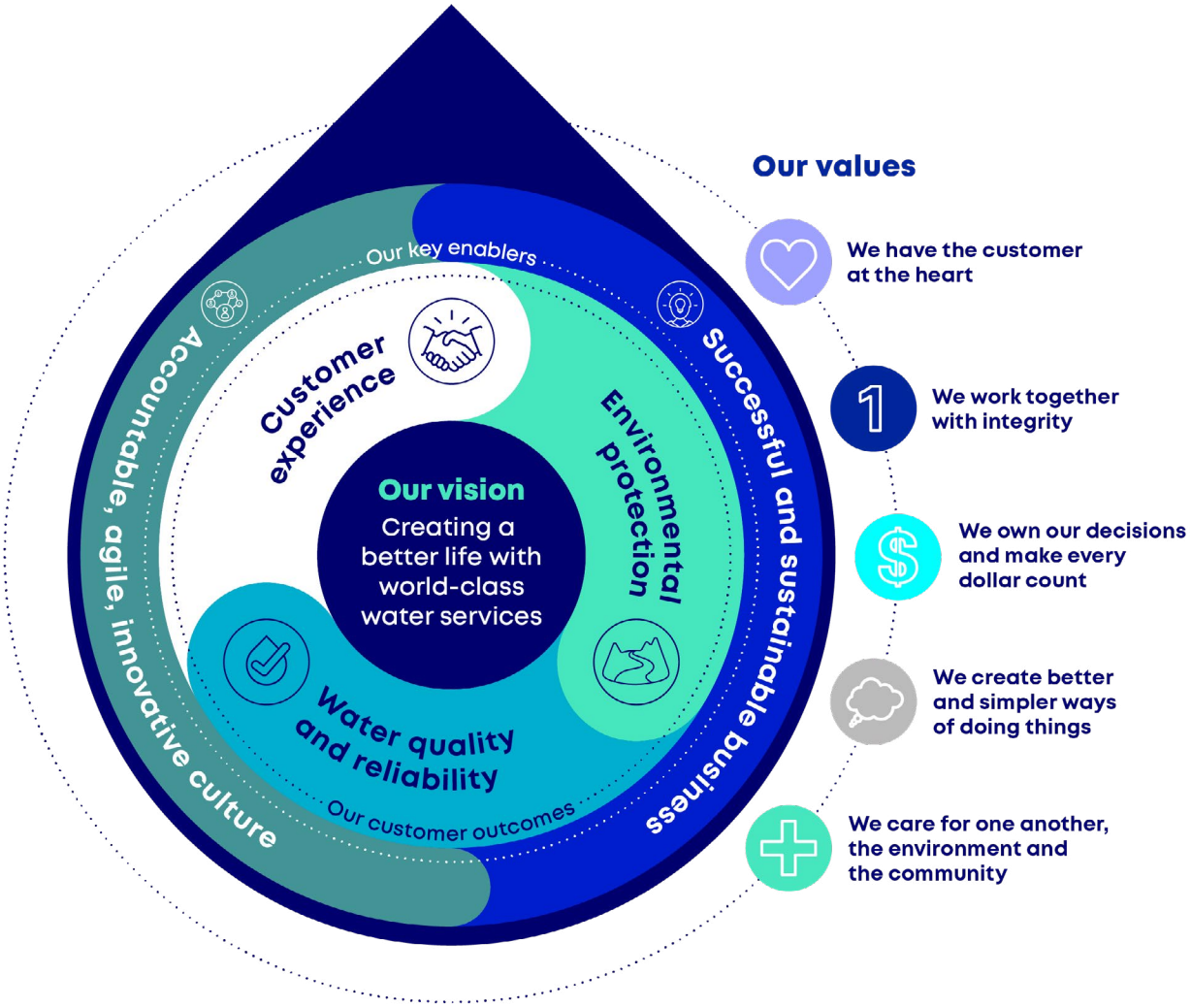
Key policy commitments include:

- Reducing wastewater pollution to support clean and safe waterways.
- Having no net environmental impact from our discharges to the air, waterways, or land.
- Maximising resource value and supporting a circular economy by responsibly managing energy, water and materials, and minimising waste creation.
- Achieving net zero carbon in our operations by 2030 and supply chain by 2040.
- Supporting entire integrated water cycle management.
- Protecting, restoring, and enhancing our natural and heritage assets.
- Social responsibility by having regard for the interests of the community.

Additionally, Sydney Water's Our Strategy to Deliver Our Vision, 2025-2035 provides an overview for delivering the vision to create a better life with world-class water services, and articulates the following customer aims (refer to Figure 2-1 below):

- Customer experience.
- Water quality and reliability.
- Environmental protection.

Seeds being collected for propagation by Dharug Aboriginal Social Enterprise, Muru Mittigar.



Our customer outcomes

Customer experience

Deliver a great customer experience:

- Fair and affordable bills
- Positive customer experience
- Informed and empowered customers
- Safe swimming and recreation

Water quality and reliability

Provide safe, clean, reliable drinking water every day:

- Safe and clean water
- Secure water supply
- Saving water together
- Reliable water

Environmental protection

Ensure we protect our waterways and environment now and for the future:

- Prevent pollution
- Recover resources
- Cool, green and natural places
- Net zero carbon emissions
- Climate resilient systems

Our key enablers

Accountable, agile, innovative culture

Enable our customer outcomes through an accountable, agile, innovative culture:

- Embrace ownership and accountability
- Foster agility and adaptability
- Inspire and drive innovation

Successful and sustainable business

Enable our customer outcomes by being a successful and sustainable business:

- Efficient and financially sustainable business
- Community trusts and values us
- Value-driven digitalisation

Figure 2-1 Sydney Water's Strategy Architecture

Sydney Water's Environmental Policy and Our Strategy to Deliver Our Vision, 2025-2035 documents can be found here

4.4.2 John Holland Sustainability Vision

At John Holland, sustainability is more than a policy; it is a commitment to creating a lasting, positive impact. Guided by our core values, we aim to drive economic growth, foster environmental resilience, and promote social progress in every project we undertake. As a company, we believe in leaving a legacy that benefits the communities we serve, working hand-in-hand with our customers and stakeholders to achieve this vision.

Our Sustainability Policy reflects this ethos, stating: *"Our goal across all our business activities is to drive economic growth, environmental resilience, and social progress. In collaboration with our customers and stakeholders, we strive to create a positive legacy for the communities in which we work."*

This commitment is brought to life through the **John Holland Sustainability Framework** (Figure 2-1), which shapes decision-making at every level of our business. The framework is built on four key pillars:

1. Leadership and Strategy – Driving innovation and accountability in sustainability.

2. Our Community and Partners – Building meaningful relationships and delivering shared value.

3. Built and Natural Environment – Protecting and enhancing the world around us.

4. Our People – Empowering individuals to thrive and lead change.

These pillars are supported by **12 Sustainability Elements**, which ensure that sustainability is embedded throughout the lifecycle of every project. Together, they form the foundation of our approach to creating infrastructure that is not only functional but also future-focused.

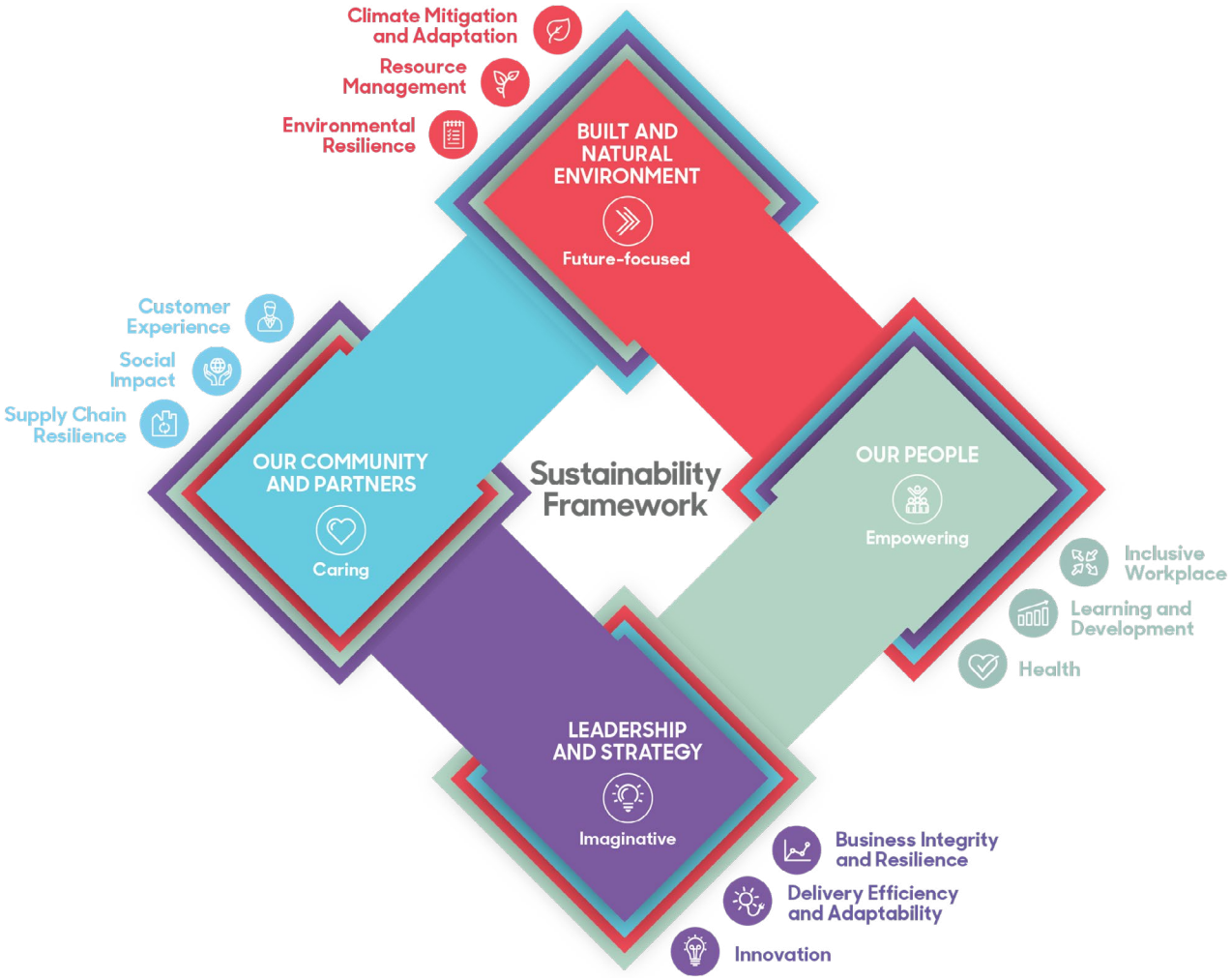


Figure 2-2: John Holland's Sustainability Framework.

More details on John Holland's Sustainability Framework and Sustainability Policy can be found here

4.4.3 Project Sustainability Approach

The Upper South Creek Project is a flagship example of John Holland's commitment to sustainability in action. Guided by the SMP, the Project is working to embed sustainability into every aspect of delivery, striving not just to meet but to exceed the Project's sustainability requirements.

The SMP draws on best practices and frameworks from Sydney Water, the United Nations Sustainable Development Goals (SDGs), the Infrastructure Sustainability Council, and John Holland's own Sustainability Management Framework (SMF) (Figure 2-2).

This integrated approach ensures that sustainability is not an afterthought but a core driver of decision-making and innovation.

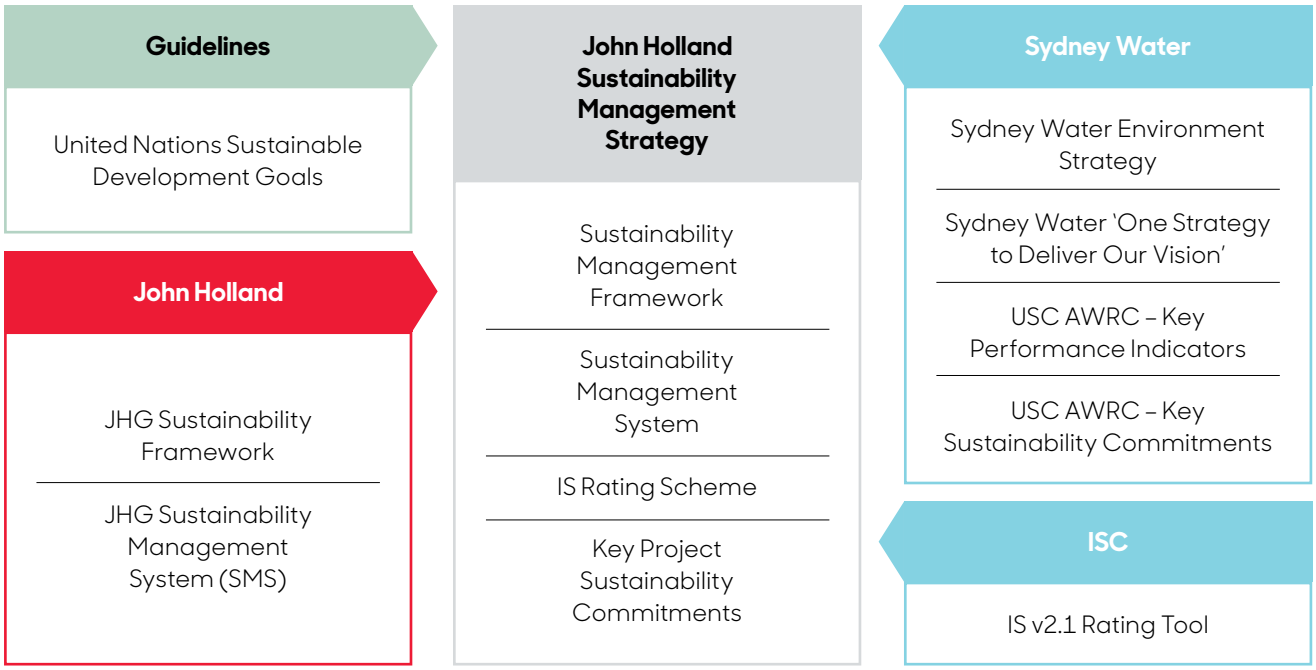


Figure 2-3. Sustainability Management Strategy Development.

The strategy aligns with Sydney Water's Environment and Sustainability Policy, ensuring that every component of the Project contributes to Sydney Water's vision of "Creating a better life with world-class water services." By leveraging the synergy between John Holland's four sustainability pillars and 12 elements, and Sydney Water's strategic outcomes, the Project is delivering an inclusive, resilient, and forward-thinking approach to sustainability.

The SMP also enables the Project to contribute meaningfully to the UN Sustainable Development Goals, ensuring that the benefits of the Project extend beyond its immediate scope to support global sustainability priorities.

This Project is not just about delivering infrastructure, it's about building resilience. By aligning with Sydney Water's 2025-2035 Strategy, the Upper South Creek Project is helping to strengthen Sydney's water network, ensuring it can meet the challenge of a growing population and a changing climate. At the same time, the project is fostering resilience within John Holland's own people, supply chain, and the broader community.

Through collaboration, innovation, and a shared commitment to sustainability, the Upper South Creek Project is setting a new benchmark for what infrastructure can achieve, not just for today, but for generations to come.

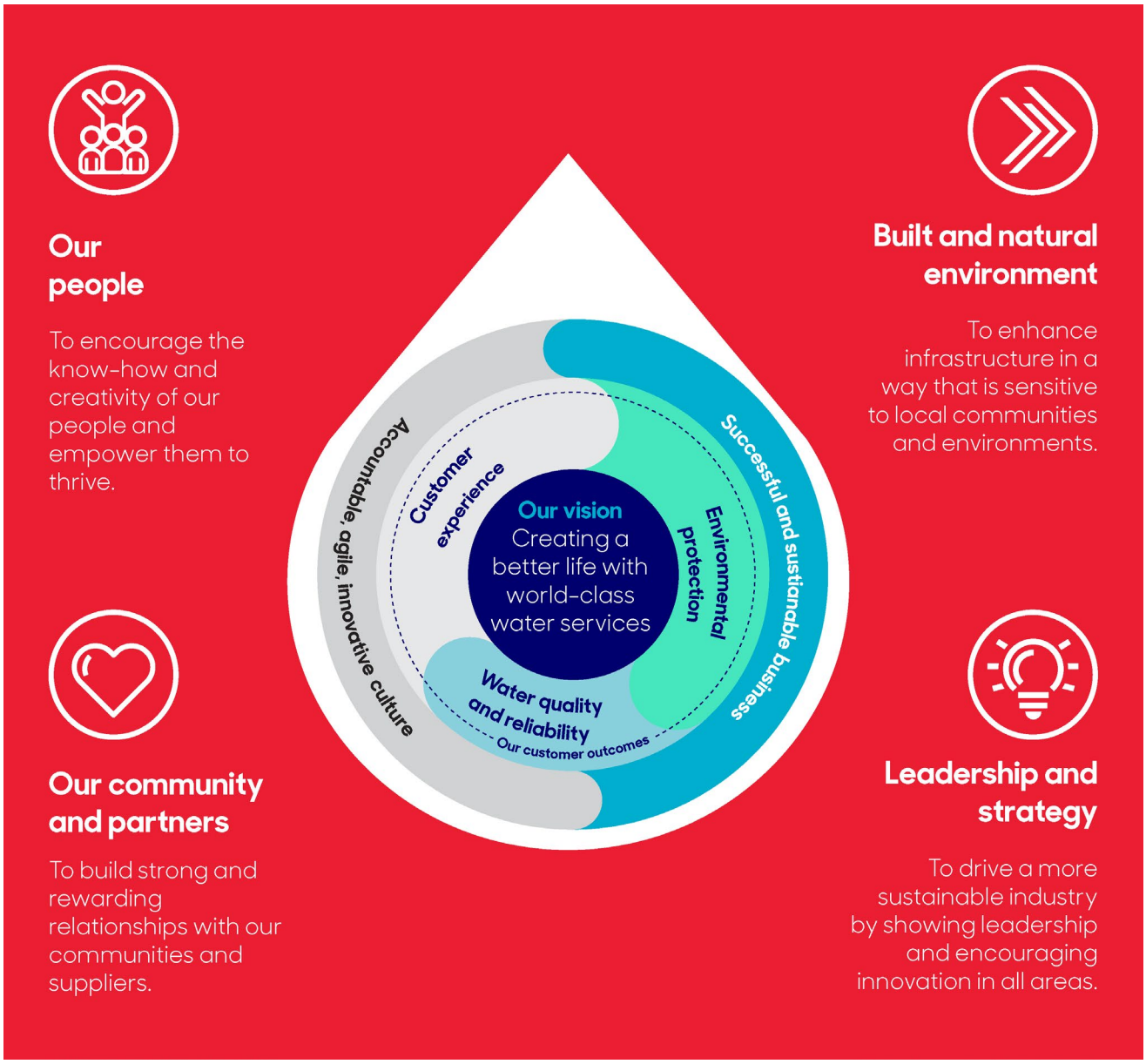


Figure 2-4. John Holland SMF's integration with Sydney Water's Strategy Architecture.

4.4.4
Project Sustainability Objectives and Targets

The figure below outlines the Material Sustainability Themes and Objectives for the Project, with full details on the Project sustainability targets being provided in Appendix A and within the relevant section of this report.

Project-Specific Sustainability Themes and Objectives

Environmental Health	Natural and Heritage Assets	Energy and Carbon	Circular Economy
■ Have no net impact on environmental health through discharges to water, air, and land.	■ Protect, restore, and enhance natural and heritage assets.	■ Responsibly manage energy by applying best practice design and energy efficiency approaches. ■ Minimise residual GHG emissions by pursuing renewable energy and low-carbon solutions.	■ Pursue circular economy approaches to material sources (including reuse) and effective waste management.

Water Use Management	Resilience	Society and Community	Governance
■ Supply recycled water for non-drinking purposes for use in homes and businesses, for agriculture purposes or irrigation of public spaces. ■ Minimise water use and choose appropriate water sources.	■ Adopt a resilience approach when considering climate change risks, climate change impacts, and implement adaptation solutions.	■ Be a leader in social responsibility by having the well-being of the community and stakeholders at the forefront of delivery. ■ Create green and vibrant spaces through landscape-led urban design and landscaping.	■ Value-for-money decision-making which integrates economic, social, environmental aspects.

Project risk, opportunities and stakeholder concerns are mapped to Project Material Themes and Objectives in below. These have remained unchanged since the last reporting period, though several of these risks (i.e. delivery and construction-related risks) will be closed as the Project approaches completion.

Material Theme/ Objective	Type	Detail
Resilience	Project Risk	Vulnerability to natural hazards and the longer-term impact of climate change
Society & Community	Project Risk and Stakeholder Concern	Community disruption through the construction phase of the development
Society & Community & Environmental Health	Project Risk and Stakeholder Concern	The development sites are situated near residential and commercial dwellings sensitive to construction impacts such as noise and vibration
Environmental Health	Project Risk	Unapproved negative impact to Flora and Fauna protected by the EPBC Act and/or BC Act
Environmental Health	Project Risk & Stakeholder Concern	Risk of impacting water resources through surface water pollution due to construction impacts
Circular Economy	Project Risk	Controlling the quality and compliance of materials bought to site
Natural & Heritage Assets	Stakeholder Concern	The time needed to meaningfully and sensitively engage with Aboriginal stakeholders about Caring for Country practices and how these can be incorporated into design, delivery and operation
Natural & Heritage Assets	Stakeholder Concern	Desire from stakeholders to implement an education hub, detailed heritage interpretation, public recreational space or other aspects of the facility that may no longer be feasible or continued as described in the EIS
Environmental Health	Stakeholder Concern	Operational impacts of an AWRC including perceived impacts to property values, concerns about operational odour and noise, wildlife management, visual impacts, glint and glare for pilots, light spill, the co-generation gas flare, urban heat, transport of chemicals and increased traffic
Governance	Project Opportunity	Providing efficient and cost-effective wastewater services
Water Use Management	Project Opportunity	Producing high-quality, recycled water for a range of potential non-drinking reuses
Energy & Carbon	Project Opportunity	Potential to recycle organic waste to generate electricity
Energy & Carbon	Project Opportunity	Producing biosolids for an alternative to chemical fertilisers in agriculture
Natural & Heritage Assets	Project Opportunity	Enhancing biodiversity by greening Western Sydney with recycled water
Energy & Carbon	Project Opportunity	Generating renewable energy at the AWRC
Natural & Heritage Assets	Project Opportunity	Delivering a landscape-led design to seamlessly connect the AWRC to the wider precinct
Governance	Project Opportunity	Sustainability has been a core principle of the design, to achieve an ISC 2.1 Gold Rating in support of Sydney Water's net zero ambitions

4.4.5
Building a Strong Supply Chain

At John Holland and on the Upper South Creek Project, we continue to recognise the vital role that suppliers play in supporting our business activities, and we understand that our reputation relies on the quality of the services they deliver. For this reason, we work closely with our trading partners to ensure that they share our values and uphold the highest standards of sustainability.

All of the Project's operations run in alignment with John Holland Group's corporate systems, processes and policies, such as the Procurement Policy, Reconciliation Action Plan, and Modern Slavery Statement, which contains an outline of the controls in place to address Modern Slavery risk. These controls are mirrored in the Project's procurement processes.

Our supplier relationships are built on collaboration and respect. We have comprehensive and industry-leading requirements for our suppliers to comply with all applicable regulations and legislation regarding working hours, wages, welfare, and human rights. By operating on a category management approach to procurement, particularly for strategic trades, we can develop deeper relationships with key vendors through our supply chain. This approach fosters closer collaboration and alignment with our corporate goals and values.

Furthermore, we believe in supporting our suppliers through training and knowledge-sharing. We regularly hold forums to communicate clear expectations and provide opportunities for them to enhance their sustainability practices.

It is with great pride that we acknowledge the pivotal collaborations we have established with the following suppliers and delivery partners. Through these partnerships, we have been able to implement cutting-edge and sustainable practices that have led to significant achievements for our Project, John Holland, and Sydney Water:

- Kypreos Group, State Asphalt Services NSW
- SAMI Bitumen Technologies
- Boral
- Jonishan
- UEA
- Killard Infrastructure
- Steel Mains
- Zublin
- Kennards Hire
- Blue Diamond Machinery
- Re-fuelling Solutions
- Hanson
- Luci Civil
- Terra Civil
- Transmutation
- Mates on the Move

We are grateful for the commitment and efforts of our supply chain partners in driving sustainability and contributing to our success. Together, we are making a positive impact on the environment and communities we serve.

4.4.6
Memberships and Associations

John Holland continues its involvement with the following nationally recognised sustainability industry organisations:

- Infrastructure Sustainability Council (ISC).
- Green Building Council of Australia (GBCA).
- Materials and Embodied Carbon Leaders' Alliance (MECLA).
- Sustainable Supply Chain School.
- The Engagement Institute (formally IAP2)
- National Association of Women in Construction (NAWIC).

5 UN SDGs Project Target Alignment

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Our targets seek to both minimise our negative impacts and maximise our positive impacts as we procure, design, build and operate the Upper South Creek Advanced Water Recycling Centre. Details of each target are presented in the following sections, including both positive outcomes and negative. Where negative impacts are identified by the Project, actions and steps taken to mitigate or prevent these issues have been described.

Figure 5-1 below demonstrates how key targets address both positive and negative impacts and maps these against the UN Sustainable Development Goals (SDGs). Mapping of all targets to UN SDG outcomes is located in Appendix A, continuing the work undertaken by the Project during last year's reporting period. As such, several of the case studies presented below are updates on the status and implementation of some initiatives presented in the previous reporting period.

Maximise Positive Contribution

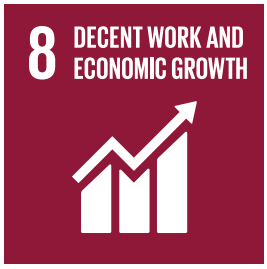
Skills and Supply Chain

Theme
Governance

Target
- ISC v2.1 'Gold' rating and achievement of 5 ISC Innovation points.

Theme
Diversity and Inclusion

Target
- D&I employment targets and actions are created to increase attraction and retention to support under-represented groups.
- Raise awareness of at least five D&I days of significance.



Theme
Local and Social Employment and Procurement

Target
- Targeted employment programs including mentoring are developed implemented.
- D&I objectives and targets are embedded in performance agreements for senior management team.

Design

Theme
Natural and Heritage Assets

Target
- Identify, maintain, and enhance Aboriginal and non-Aboriginal heritage assets and values within the Project's urban and landscape design by integrating requirements into design documentation by 2026.
- Develop and implement 100% of the urban design landscape themes/ recommendations within the Stage 1a Operational Space Urban Design Landscape Plan.

Construction

Theme
Water Use Management

Target
- Regenerate and landscape the riparian area adjacent to Wianamatta-South Creek, including the reconnection of an on-site billabong, to support Western Sydney's green spine development.

Operation

Theme
Circular Economy

Target
- 100% re-use of biosolids.

Theme
Circular Economy

Target
- 50% of materials (by cost) can be easily adapted, re-used or recycled at end-of-life.

Minimise Negative Contribution

Skills and Supply Chain

Theme
Circular Economy

Target
- Maximise use of recycled materials.

Theme
Circular Economy

Target
- 45% reduction in material life cycle impacts from the Base Case scenario.

Design

Theme
Energy and Carbon

Target
- 30% reduction in energy use/demand from Base Case scenario.

Theme
Resilience

Target
- Reduce 100% of extreme and high-priority direct climate and natural hazard risks to an acceptable risk level.

Theme
Water Use Management

Target
- 25% reduction in water demand and total potable water from the Base Case scenario.

Construction

Theme
Circular Economy

Target
- 95% diversion of clean/inert excavation spoil from entering landfill.
- 80% diversion of other inert resource outputs from entering landfill.
- 70% diversion of office waste from entering landfill.

Theme
Environmental Health

Target
- The Project has several targets associated with mitigation of material environmental impacts.

Operation

Theme
Energy and Carbon

Target
- 50% increase in operational electricity sourced from renewables from Base Case scenario.

Theme
Environmental Health

Target
- Operational noise, air and water impacts reduced.

6 Circular Economy and Materials

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Legend

- Project is on track to meet target
- Project is at risk of falling behind target
- Project is not meeting target

Stakeholder Engagement:

Primary stakeholders concerned with resource efficiency and lowering of emissions are the client (Sydney Water) and other governmental institutions, such as emergency services, state and federal government departments and local councils.

Management Approach:

The Project has outlined its approach to resource efficiency in the Waste and Resource Use CEMP Sub-plan. Feasible sustainability initiatives are developed for inclusion as options in the Project's design and delivery phases. Early inclusion of resource efficiency into the Project is paramount for achievement of targets, which are reported as outlined below.

GRI 301: Materials, GRI 306: Waste

Objective:

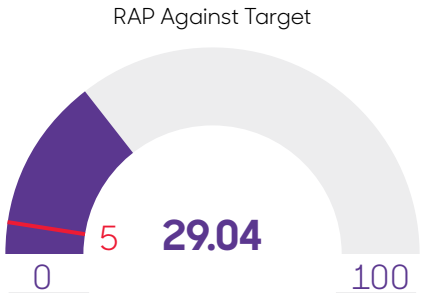
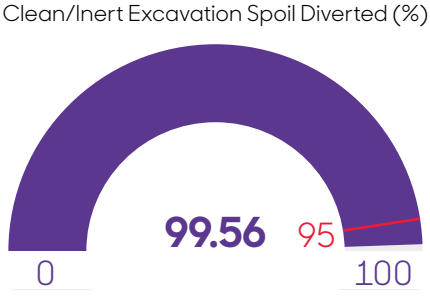
Pursue circular economy approaches to material sources (including reuse) and effective waste management.

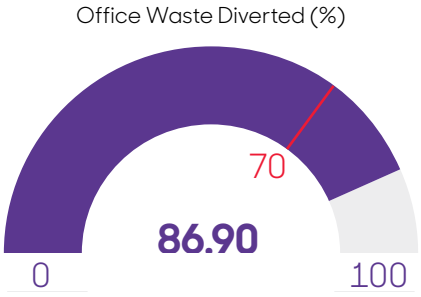
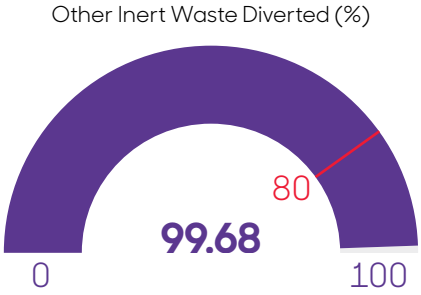
Key risks, opportunities, and stakeholder concerns addressed by this material issue are detail in Section 4.4.4.

Governed by the Project's SMP, targets under this material issue are tracked through:

- Monitoring of construction-phase data through reporting by the Project on materials used and waste generated within the Project's data capture platform Project Pack Web.
- Material modelling for ISC purposes.
- Reporting on the design phase impacts is undertaken through inclusions within Design Reports and Issued for Construction documentation supported by annual waste system/process audits, and six-monthly 'waste-to-destination' audits in collaboration with the Project's waste management contractors.
- During delivery, monthly and quarterly data is provided to the project senior leadership team and to the client directly.

Target	Target Tracking and Achievement	Progress
45% reduction in material life cycle impacts from a Base Case scenario (T-7)	31% saving of environmental impacts (expressed as Greenhouse Gas (GHG) equivalent) of materials used in Reference Design. This reduction equates to abatement of 141,901 tonnes CO_2-e. This was verified by the ISC through the Project's IS Rating at the Design phase and will be subject to additional verification through the Project's As-Built rating. Key initiatives include: ■ Removal of primary treatment stage in favour of larger bioreactors ■ Changing water treatment chemical type (from methanol to liquid sugar) ■ Optimisation of pipe diameter for treated and brine pipeline ■ Change from microtunnelling to horizontal directional drilling ■ Change in pipe material for drainage works, from Reinforced Concrete Pipe to polyethylene, reducing overall embodied carbon. Details of these initiatives are provided below. The 45% reduction target, selected and endorsed by the Senior Leadership Team at the project's inception, was designed to drive an ambitious approach to sustainable design and construction, pushing boundaries of embodied carbon reductions through material substitution, reduction, and design efficiencies. As the first water plant in the country to be assessed under the v2.1 Sustainable Rating Scheme, this project set a new benchmark for sustainability in the sector. While the ambitious target may not be fully achieved, the Project's achievement of over 30% reduction in materials-related impact is a significant milestone. This outcome is particularly commendable given the scale and complexity of the project as a wastewater treatment facility. It demonstrates meaningful progress in reducing embodied carbon within the infrastructure water sector and highlights the Project's role in advancing sustainability standards for similar facilities in the future.	
30% of products / materials (by cost) will have an ISC-approved sustainability label (T-8)	To date, 33% of products/materials by cost are forecast to have been procured and included in the Project. This achievement is the result of coordination work and contract commitments with our supply chain. The Project undertakes ongoing collaboration with our supply chain to ensure certified products are available and procured, where possible. To ensure we meet our target, key packages such as low voltage services, metal roofing, construction of the administration building, high voltage cable supply, access floor, cable ladders, junction boxes and more will continue to request suitably labelled products throughout the procurement process. Supplier relationships that are key to this achievement include: ■ Active Steel provided the Project with GECA ecolabel certified Reo and Mesh through InfraBuild ■ Steel Mains supplied Sintakote steel pipe, which comes with an endorsed Environmental Product Declaration (EPD) ■ Viadux's PVC (and PVC-O) pipes and fittings are manufactured in compliance with the GBCA's Best Environmental Practice Framework (BEP) ■ Star Electrical supplied LV cables that similarly align with GBCA's BEP ■ Prysmian's 22kV cables also comply with GBCA's BEP ■ TSS Engineering supplied reinforcement steel and mesh from InfraBuild, with GECA ecolabel certification Pipe Lining and Coatings used on the Project have Global GreenTag (XLERPLATE Steel) certification and also come with an endorsed EPD (Boral Cement).	
100% re-use of biosolids (T-9)	The reuse of biosolids is integrated into the Design and Operational Management of the plant with commitment from Sydney Water with a current targeted outcome of 100% re-use. Currently the Project is establishing contracts with Sydney Water approved waste management contractors to dispose of the biosolids during the Project commissioning phase.	

50% of materials (by cost) can be easily adapted, re-used or recycled at end-of-life (T-10)	The Project is currently tracking to achieve 89% of materials (by cost) that can be easily adapted, re-used and/or recycled at end of life in line with requirements as outlined in the IS v2.1 credits Rso-5 'Adaptability and End of Life'. Key design considerations include: ■ Simplified Project structure and form for ease of adaptation or deconstruction ■ Select materials using a precautionary principle to consider longevity and pathways for reuse and recycling ■ Design the asset with a high degree of modularity and standardisation ■ Delineate mechanical, electrical, and plumbing systems ■ Account for space proofing in design to facilitate easy maintenance by future workforce and labour. Allow for increased wastewater treatment capacity and integration of renewable energy generating technology types.	
≥ 250 tonnes of pipe bedding sand made from a blend of natural sand and crushed glass collected from curb side waste collection schemes will be used in the Project permanent works (T-11)	In February 2024, the Project undertook a trial to prove the fit-for-purpose use of recycled glass bedding sand mix as a suitable replacement for virgin bedding sand. The Project supplied successful trial results including compliance with Sydney Water specification around quality assurance, compaction and sieve size, as well as evidence of the glass sand's comparable constructability and safety requirements. On 19 April 2024, Sydney Water conditionally approved the use of the glass sand in the permanent works which have been incorporated into the Project's permanent works. To date, over 5,600 tonnes of manufactured sand has been installed (comprising 38.4% of the 14,700 tonnes of bedding sands used in total).	
≥ 2000 white feather honey myrtle seeds will be collected from site, germinated and returned to Project site as tube stock for use in permanent landscaping works to use in the regeneration of the Project riparian corridor (T-12)	2,200 white feather honey myrtle seeds (Melaleuca decora) and 600 swamp she-oak seeds (Casuarina glauca) were collected by Muru Mittigar, a Dharug Aboriginal Social Enterprise in Western Sydney, who grew these seeds to tube stock for planting in the riparian corridor adjacent to the AWRC. The germinated plants were planted within the riparian corridor in March 2025.	
The Project will target 5% recycled material and/or recycled asphalt pavement use in the asphalt production for permanent works at the plant site (T-13)	The Project, with collaboration and input from the supply chain, has achieved considerably higher levels of Recycled Asphalt Pavement (RAP) than those originally targeted. In the reporting period, the Project installed asphalt with an average of 29% recycled content. The major supply and installation asphalt package for the plant roads has not yet been finalised on site so this figure will be subject to change before the Project's completion 	
95% diversion of clean/inert excavation spoil from entering landfill (T-29)	Construction phase diversion rates during the reporting period are compliant with the identified target, achieving 99.56% in this reporting period. 	

70% diversion of office waste from entering landfill (T-30)	Construction phase diversion rates are compliant with the identified target, achieving 86.9% in this reporting period.		
80% diversion of other inert resource outputs from entering landfill (T-31)	Construction phase diversion rates are compliant with the identified target, achieving 99.68% in this reporting period.		
The Project will utilise ≥ 300 tonnes of salvaged and collected woody debris (logs and root balls) in the Project's riparian corridor rehabilitation and revegetation works (T-32)	Over 300 tonnes of salvaged woody material has been used in the riparian corridor both on land and in waterways to assist in the restoration of Wianamatta-South, Oaky and Cosgroves Creeks. Details of the material's use is included in the Project Vegetation Management Plan. An overview of the initiative, and its outcomes, is provided in the case studies below.		
≥ 20 tonnes of sustainable asphalt made from recycled coffee cups and using a bio-bitumen (polymer-modified binder containing biogenic materials) binder will be trialled on-site as part of temporary works during construction to evidence the use/viability and incorporation of problem waste streams in construction materials (T-33)	This trial was undertaken in February 2024 and ran for 75 working days with results currently being analysed by a pavement specialist. The trial provided useful data to further develop and refine the products for future at scale installations and opportunities for further integration of the sustainable mix is being considered for the AWRC internal roads.		

The Upper South Creek Project is a testament to the power of innovation and collaboration in achieving sustainability goals.

By integrating cutting-edge solutions in water, energy, and materials across both design and construction phases, the Project not only meets but exceeds industry benchmarks, setting a new standard for sustainable water infrastructure delivery. These achievements reflect the dedication and ingenuity of our team, who continue to push the boundaries of what is possible in sustainable construction.

The Project achieved a **31% reduction in lifecycle environmental impacts**, equivalent to avoiding **141,901** tonnes CO_2-e, through innovative design and material optimisation. Key initiatives included:

- **Switching to lower-impact materials:** By redesigning the wastewater process to eliminate primary sedimentation treatment and incorporate larger, more efficient bioreactors and MBR technology, alongside substituting methanol with liquid sugar for water treatment, the project reduced lifecycle emissions by **93,811** tonnes CO_2-e.
- **Incorporating recycled content:** By increasing recycled asphalt pavement (RAP) in road construction and using supplementary cementitious materials (e.g. fly-ash) at a rate of 50% in place of portland cement, **5,569** tonnes CO_2-e was abated.Additionally, the Project has trialled recycled content in other materials, such as recycled glass as bedding sand.
- **Optimising material use:** Reduced pipe diameters, substituted high-impact materials like HDPE with PVC-O, and switched from reinforced concrete to lightweight alternatives like BLACKMAX for drainage. Combined, these initiatives reduced embodied carbon by **5,097** tonnes CO_2-e.
- **Pipe Material Optimisation:** Replaced traditional HDPE with PVC-O for brine pipelines and used BLACKMAX pipes for stormwater drainage, saving a combined **3,895** tonnes of embodied CO_2-e emissions.
- **Redesign of treatment plant process flow:** The Project's design was designed to ensure optimal function with streamlined assets. This included removal of primary sedimentation tanks, sludge digester equipment buildings, and other associated redundant infrastructure, reducing embodied carbon by **643** tonnes CO_2-e.
- **Post-tensioning brine tanks:** Optimised tank design reduced steel requirements, cutting emissions by **302** tonnes CO_2-e.
- **Circular economy partnerships:** As part of the partnership between John Holland and Boral and HiQ on the Upper South Creek Project, excess and returned concrete and asphalt waste is collected and transported to each facility in compliance with EPA regulations. At these facilities, waste is processed into reusable construction materials. This initiative resulted in abatement of more than 100 tonnes CO_2-e through the recycling and reuse of more than 5,200 tonnes of concrete and asphalt waste. To promote the demand side of these circular economy initiatives, the Project re-purchased and installed these materials in permanent concrete works for the wastewater treatment plant, closing the loop.

6.1
Circular Economy & Materials – Case Study

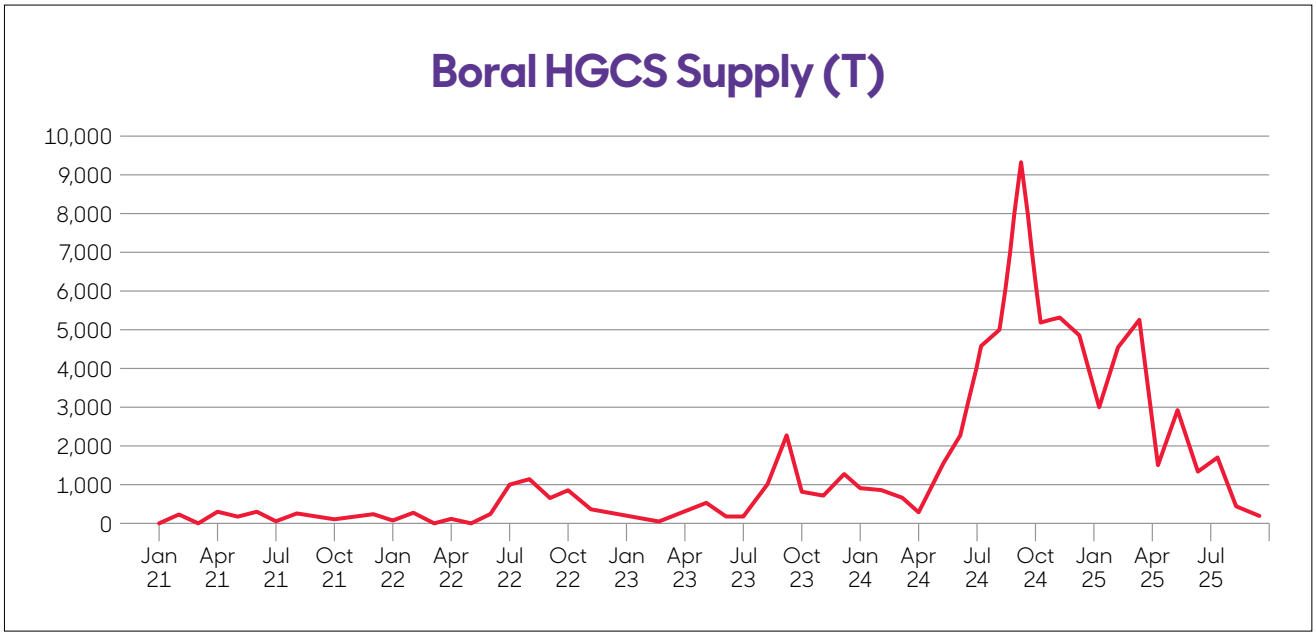
Initiative Name	Sustainable Asphalt Trial
Target	**T-33** **Over 20 tonnes of sustainable asphalt made from recycled coffee cups and using a bio-bitumen (polymer-modified binder containing biogenic materials) binder will be trialled on-site as part of temporary works during construction to evidence the use/ viability and incorporation of problem waste streams in construction materials.**
Phase	Construction and Delivery
Status	Complete
Initiative Summary	The Project is trialling the reuse of disposable coffee cups in combination with a biogenic-based polymer modified binder within temporary roads on the Project
Initiative Detail	Through early identification of potential innovations and initiatives, the Project sustainability team engaged with ambitious suppliers, State Asphalt Services (SAS) and SAMI Bitumen Technologies. With this collaboration, the Project trialled a 10mm Stone Mastic Asphalt (SMA10) consisting of cellulose fibres from recycled coffee cups (PAKPAVE) and a low carbon emission, biogenic-based bio-binder (SAMIGreen), the first time these products had been used in combination in Australia. The PAKPAVE fibres are derived from coffee cups collected through Closed Loop's Simply Cups initiative, Australia's largest paper cup recycling program. SAMIGreen is a petroleum-free alternative to bitumen which is made using non-petroleum based renewable raw materials, resulting in energy efficient asphalt with a minimised carbon footprint and equivalent engineering performance, making it a more sustainable model long term. This world-first trial combining bio-binder and recycled coffee cup fibre asphalt mix, showed a 25% carbon reduction per m^2 when compared to conventional SMA. Testing also showed enhanced durability and longevity, allowing application at reduced thickness due to its improved performance, decreasing both cost and carbon impacts. A trial was undertaken in February 2024 with 25 tonnes of trial pavement being laid (approximately 295m^2 at a 35mm thickness), as well as 25 tonnes of control pavement (approximately 215m^2 at a thickness of 45mm). Over 75 days, the area experienced over 15,600 heavy vehicle movements, providing critical data to the development team to improve the performance and industry uptake of this innovation for future projects. While it is yet to be determined whether these combined products will be installed in the permanent roads inside the AWRC, use of the binder, SAMIGreen, has been included as a minimum commitment.
Data Focus	This innovation was certified as a world first by the Infrastructure Sustainability Council. Each tonne of asphalt uses 364 coffee cups, with the potential to divert 415,000 coffee cups from landfill in permanent works. This innovation demonstrates the significant environmental value of integrating recycled materials into construction processes. Should this initiative be undertaken across all of the Project's internal roads, 1,234 t CO_2-e would be abated. **Enhanced Pavement Performance** The asphalt mix enables reduced pavement thickness without compromising durability, as evidenced by successful on-site trials, extending asset life and reducing maintenance costs. State Asphalt Services, with information provided by SAMI Bitumen Technologies, has calculated that the trialled material resulted in a 25% embodied carbon reduction when compared to conventional SMA and 14% when compared to Dense Graded Asphalt. With asphalt production contributing 5-8% of Australia's construction emissions, these trialled materials have the potential to significantly abate carbon. Upper South Creek's trial has helped prove the material's suitability and scalability for future applications. Assumptions for calculations were listed in the Upper South Creek April 2023 to April 2024 Report.

6.2
Circular Economy & Materials – Case Study

Initiative Name	Site Worm Farm
Target	**T-30** **70% diversion of office waste from entering landfill.**
Phase	Construction and Delivery
Status	Ongoing
Initiative Summary	On-site worm farm treating effluent and reducing associated vehicle movements from septic disposal.
Initiative Detail	Seven large-scale worm farms were installed on site to provide passive treatment to all site-produced sewage, with the eventual by-product being an organic liquid fertiliser, used to restore and revitalise the area surrounding the site compound for later landscaping activities. The worm farms were housed in underground tanks, eliminating visual impact and assisting with proper function by maintaining a constant temperature. The worm farm operates like a rainforest floor as it filters water through the organic material and disperses the by-product through the trenches installed in the surrounding Project area. Due to the location of the site compound, a sewer connection was not available. The business-as-usual scenario would have been to install large tanks underground and have the sewage pumped out weekly by large trucks and disposed of at an offsite facility. However, the Project team investigated alternative solutions to enable the sewage to be treated onsite. The use of the worm farm system eliminates the need for heavy vehicle movements on local roads to remove liquid waste. Additionally, not only is waste treated and beneficially reused onsite, but this system is also cheaper than the business-as-usual tank and truck option. With the move towards more remote construction in Australian markets (as more renewable and transmission projects begin construction), this innovation will see increased potential application. John Holland has already considered it for projects such as Inland Rail and for renewables projects in Central NSW and Victoria.
Data Focus	1,055.10 tonnes of sewage recycled, to date, removing 250 heavy vehicle movements from local roads.

6.3
Circular Economy & Materials – Case Study

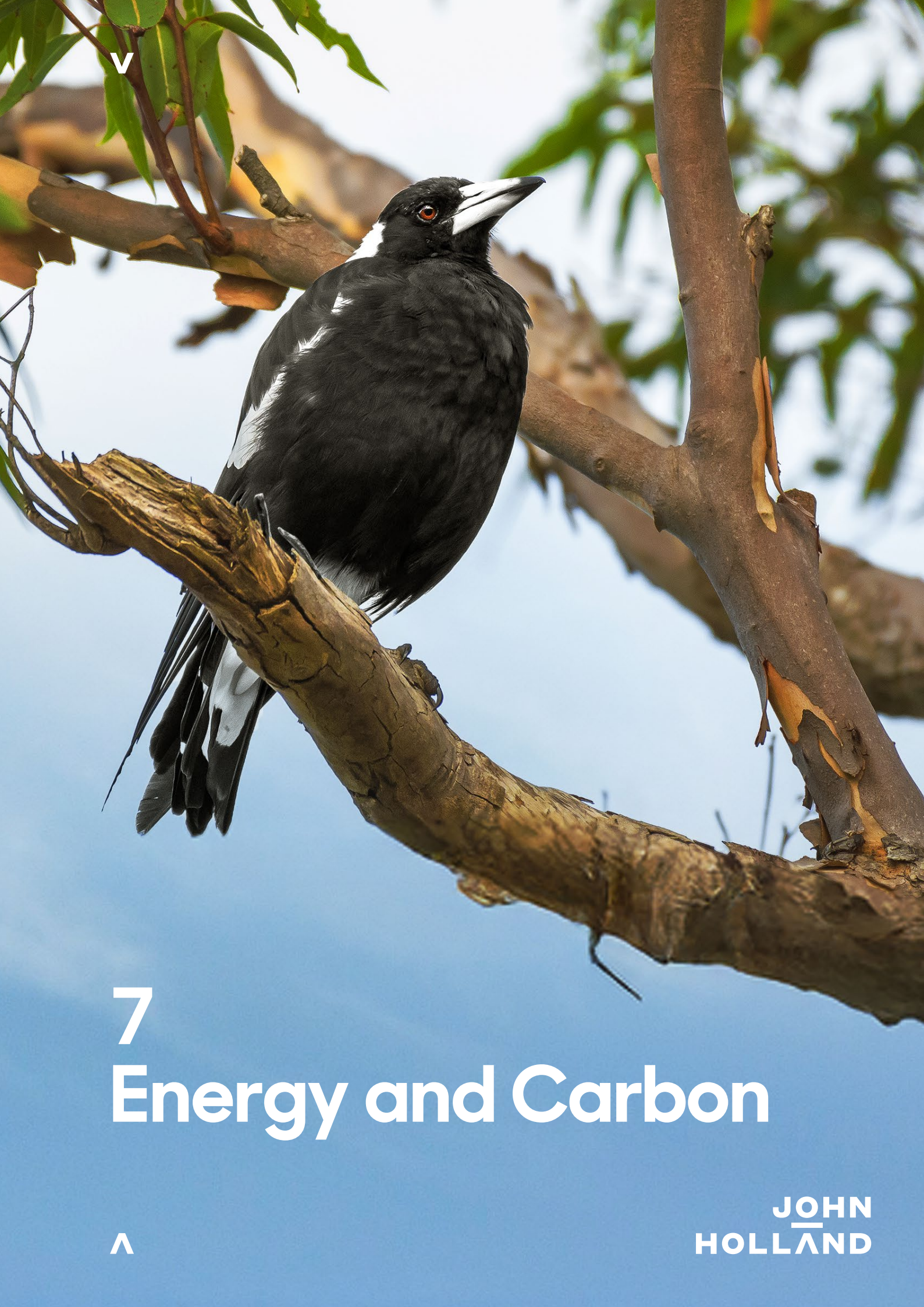
Initiative Name	Recovered glass bedding sand mix – Virgin Bedding Sand Alternative
Target	**T-11** **≥ 250 tonnes of pipe bedding sand made from a blend of natural sand and crushed glass collected from curb side waste collection schemes will be used in the Project permanent works.**
Phase	Construction and Delivery
Status	Ongoing
Initiative Summary	The use of a blended glass bedding sand mix has replaced the use of virgin bedding sand
Initiative Detail	During the planning phase, the Project identified a requirement for approximately 50,000 tonnes of natural virgin bedding sand. This presented a challenge to limit the environmental impact of the Project by reducing reliance on such a significant quantity of virgin material, prompting the exploration of more sustainable alternatives. A recycled glass bedding sand mix was identified as a promising solution to reduce the environmental impacts of sand extraction while delivering environmental, social, and economic benefits. By diverting commercial kerbside collected glass bottles from landfill and transforming them into a valuable construction resource, this innovative approach contributes to sustainability, resource efficiency, and circular economy in construction. The recovered glass sand is currently sourced from iQ Renew's facility in Wyong, NSW, where glass bottles from kerbside recycling are recovered, double washed and cube cut to achieve an almost spherical grain shape. This material is then blended with virgin sand, at Boral's Emu Plains facility, to create a blended high grade compaction sand product, alleviating reliance on virgin sand supplies. Collaboration was key to the success of this initiative. Working closely with Sydney Water, as well as supply chain partners Jonishan and Boral, the Project team facilitated the acceptance of this alternative product for a trial. Following the trial's success, Sydney Water approved the product for use in the permanent works. Furthermore, the use of recycled glass sand has now been incorporated into Sydney Water's specification documents and is already being adopted on several other projects.
Data Focus	14,900 tonnes of blended bedding sand was installed on the Project, which included trialling 5,600 tonnes of recycled glass. The trial's success, and Sydney Water's inclusion of HGCS on their list of approved non-standard products, has provided the market with confidence to use this material. Following the Upper South Creek trial, Boral has reported that their Emu Plains facility saw demand rise by approximately six times. Boral supplied an average of 5,000 tonnes of blended HGCS to the market annually until 2024, at which point, demand surged to 40,000 tonnes in 2024 and 20,000 tonnes year-to-date in 2025 (up to July).




JONISHAN
CIVIL CONTRACTING

6.4
Circular Economy & Materials – Case Study

Initiative Name	Championing innovative products: PostPrime Plastic concrete bar chairs
Target	**T-7** **45% reduction in material life cycle impacts from a Base Case scenario.** **T-8** **30% of products / materials (by cost) will have an ISC approved sustainability label.**
Phase	Construction and Delivery
Status	Ongoing
Initiative Summary	John Holland has partnered with Transmutation to introduce GECA-certified PostPrime® Plastic concrete bar chairs, made from over 90% recycled waste, replacing virgin plastic and reducing carbon emissions while supporting a circular economy.
Initiative Detail	We are proud to lead the way in sustainable construction by championing innovative solutions that support a circular economy. A standout example is our partnership with Transmutation, Australia's first manufacturer of PostPrime® Plastic concrete bar chairs, made from environmentally certified recycled plastic (GECA certified). This groundbreaking Australian innovation was first implemented at the Belmont Desalination Plant in Newcastle NSW, where the John Holland team collaborated with Transmutation to introduce bar chairs made from over 90% recycled waste material. Through a partnership with Dulux, Transmutation developed an innovative process that transforms powder waste from the powder coating process, along with agricultural plastic waste, into PostPrime® Plastic pellet feedstock. This material replaces virgin plastic in manufacturing, significantly reducing energy usage and carbon emissions while exemplifying the principles of a circular economy. The resulting 50/65mm concrete bar chairs have been successfully used in both temporary and permanent works at Belmont and are now being adopted across other John Holland projects, including footpaths and kerbs on the Upper South Creek Project. Proudly 100% Australian-made and owned, these bar chairs are commonly used to support reinforcing bars or mesh during concrete placement and can be recycled at the end of their lifecycle, further reducing environmental impacts. To date, this initiative has replaced over 3,200 virgin plastic bar chairs at Upper South Creek. With Good Environmental Choice Australia (GECA) certification and an Environmental Product Declaration (EPD), PostPrime® Plastic concrete bar chairs ensure transparency on environmental impact while contributing to resource efficiency. By embedding this innovation into our operations, John Holland is not only reducing its environmental footprint but also driving the continued adoption of sustainable products across the industry, reaffirming our commitment to fostering a more sustainable future.
Data Focus	N/A



7
Energy and Carbon

JOHN HOLLAND

Stakeholder Engagement:

Primary stakeholders concerned with resource efficiency and lowering of emissions are the client (Sydney Water) and other governmental institutions, such as emergency services, state and federal government departments and local councils.

Management Approach:

The Project has outlined its approach to resource efficiency in the Waste and Resource Use CEMP Sub-plan. Feasible sustainability initiatives are developed for inclusion as options in the Project's design and delivery phases. Early inclusion of resource efficiency into the Project is paramount for achieving targets, which are reported as outlined below.

GRI 302: Energy, GRI 305: Emissions

Objectives:

Responsibly manage energy by applying best practice design and energy efficiency approaches and minimise residual GHG emissions by pursuing renewable energy and low-carbon solutions.

Key risks, opportunities, and stakeholder concerns addressed by this material issue are detail in Section 4.4.4.

Targets under this material issue are tracked through the following:

- Monitoring of construction-phase data through reporting by the Project on energy consumed, associated GHG emissions and scope distribution within the Project's data capture platform Project Pack Web (PPW).
- Energy and carbon modelling by the design team for ISC purposes, for use in the Project's IS Rating. This will encompass both the designed and modelled energy demand and the construction phase energy consumption (in the form of fuel and electricity).
- Inclusions within Design Reports and Issued for Construction documentation.

Target	Detail	Progress
30% reduction in energy use/ demand from Base Case scenario (T-3) - Design Phase	31% saving of environmental impact (expressed as GHG equivalent) of energy used in Reference Design stage. This was verified by the ISC through the Project's IS Rating at the Design phase and will be subject to additional verification through the Project's As-Built rating.	
30% reduction in energy use/demand from Base Case scenario (T-25) - Construction Phase	31% saving of environmental impact (expressed as GHG equivalent) of energy used in Reference Design stage. This was verified by the ISC through the Project's IS Rating at the Design phase and will be subject to additional verification through the Project's As-Built rating. Several construction phase energy reduction initiatives have been included in the Project's delivery methodology. Some of these are presented below as case studies.	
50% increase in operational electricity sourced from renewables from Base Case scenario (T-4)	The Project includes the installation of a 4 MW photovoltaic system and the use of biogas for heating, enabling the facility to achieve 50% or greater energy from renewable sources until 2033, when current projections indicate the plant will reach 30 ML/day of wastewater flow. This ambitious target was established to drive sustainable energy solutions through plant efficiencies, equipment selection, and the inclusion of renewable energy-generating and utilising assets. Over the 50-year Stage 1 lifecycle, the average substitution of operational energy sourced from renewables is modelled at 41%. The facility has also been designed with the flexibility to adapt, including provisions for the future installation of a cogeneration engine. Once wastewater flows exceed 33 ML/day, anticipated in 2034, the addition of cogeneration will enable the facility to achieve energy self-sufficiency exceeding 65% during the Stage 1 lifecycle. Prior to the transition to cogeneration, the plant may purchase Large-Scale Generation Certificates (LGCs) or enter into power purchase agreements for green power to supplement renewable energy. This approach will ensure the facility maintains its sustainability commitment of 50% renewable power in Stage 1. Note that this design has remained unchanged since the previous reporting period.	
30% increase in electricity sourced from renewables in the Construction Phase (T-26)	Several initiatives have been combined to reduce the Project's reliance on non-renewable sources. These are described below. The Project's total requirement for non-renewable source is less than 0.2%.	

John Holland continues to focus on reducing energy and emissions in both the construction and operational phase.

Design Phase

The Project's design prioritised energy efficiency and renewable energy integration, achieving a **40% substitution of non-renewable energy demand** with renewable sources. Key initiatives included:

- **4.4 MW solar farm:** Designed to power operations, replacing 1,322,903 GJ of non-renewable energy and contributing 36% of the total energy substitution.
- **Biogas heaters:** Utilised renewable energy from wastewater treatment processes to replace 144,879 GJ of non-renewable energy for heating.
- **Mechanical equipment optimisation:** Selected energy-efficient equipment, such as aerostrip diffusers and two-pole reverse osmosis high-pressure pumps, to reduce operational energy demand.
- **Removal of primary sedimentation tanks (PSTs):** Eliminated the need for energy-intensive chemical dosing and associated equipment.
- **Energy-efficient administration building:** Incorporated LED lighting, high-efficiency HVAC systems, and renewable energy sources to minimise energy use.
- **Design optimisation:** Adjusted aspects of design, such as building elevation and pipeline diameter, to reduce scope of works and subsequently use of plant and equipment.
- **Reduction in Scope 3 emissions:** Achieved through 100% reuse of biosolids, which are composted and then directly applied to agricultural land, an improvement over the typical practice of composting without utilising them for agricultural purposes.

Construction Phase

During construction, the Project implemented innovative energy solutions to reduce reliance on diesel and grid electricity. Key initiatives included:

- **GreenPower procurement:** An impressive 74% of construction energy was sourced from GreenPower, demonstrating our commitment to supporting renewable energy generation.
- **Onsite solar energy:** 26% of construction energy was generated through onsite renewable sources, including 100 kW rooftop solar panels and hybrid solar generators.
- **Minimal reliance on non-renewable energy:** Less than 0.2% of construction energy was derived from non-renewable sources, showcasing the Project's leadership in sustainable energy use.
- **Sustainable biofuels:** Trialled and implemented biofuel blends (B5, B20) in construction equipment, reducing Scope 1 emissions. Of a total 219,611kL of diesel used on site, 75% (165,647kL) comprised of bio-diesel blends at either 5% (B5) or 20% (B20).
- **HVO fuel:** Introduced Hydrotreated Vegetable Oil (HVO) as a renewable diesel alternative for construction vehicles and equipment, further reducing greenhouse gas emissions.
- **Hydrogen generators:** Piloted hydrogen-powered generators to explore alternative fuel sources for construction activities. This trial was an Australian-first, providing vital data and lessons for a wider roll-out of renewable and lower-impact plant and equipment.
- **Energy-efficient site compounds:** Applied Responsible Construction Leadership Group (RCLG) recommendations to all Project site facilities, including LED lighting, timers on air conditioning, and star-rated appliances, achieving a 31% reduction in compound energy use.
- **EV site vehicles:** The Project implemented a John Holland Group first with the use of electric utes in construction operations, reducing tail-pipe emissions and on-site noise. While challenges such as limited 4WD capabilities and issues with access to appropriate charging infrastructure were identified, the trial provided valuable insights for improving the integration of electric vehicles in construction, underscoring John Holland's commitment to innovation and sustainability, and setting a strong foundation for broader adoption of electric vehicles across our operations.
- **Scope 3 reduction/Resource Efficiency Strategy and Action Plan:** The Project developed and applied a comprehensive Resource Efficiency Strategy and Action Plan which saw the optioneering of multiple initiatives to 'avoid and reduce, reuse, recycle and repurpose' construction and demolition waste generated. These initiatives resulted in 9,731 tonnes CO_2-e reduction in emissions (13% of total carbon reduction).
- **Value engineering for pipe materials:** Optimised pipe diameters for treated and brine pipelines, reducing excavation requirements and materials use. This saved 849,000 litres of fuel and avoided 3,020 tonnes CO_2-e emissions.
- **Switch to Trenchless Technology:** Using Horizontal Directional Drilling (HDD) instead of microtunnelling during construction of the pipelines, eliminating the need for launch and retrieval pits, saving 1,296,910 litres of fuel and avoiding emissions of 4,380 tonnes CO_2-e.
- **Innovative Pipe Joints:** Introduced Sintajoint pipes, eliminating welding and equipment requirements, saving 104,056 litres of fuel (350 tonnes CO_2-e). Additionally, this process also speeds up the pipe install rates and increased productivity, reducing construction time within this works package by 48.6 days or 17%.

7.1
Energy and Carbon – Case Study

Blue Diamond and Toyota's innovative GEH2 100 kVA Hydrogen Generator.

Initiative Name	Hydrogen Generator Trial
Target	**T-25** **30% reduction in energy use/demand from Base Case scenario.**
Phase	Construction and Delivery
Status	Implemented
Initiative Summary	Hydrogen Generator Trial demonstrates site alternatives to diesel generators.
Initiative Detail	Another of the Project's energy use reduction initiatives saw the trial of a Hydrogen Generator to test and demonstrate proof-of-concept for site alternatives to diesel generators. The initiative trialled by the Project involved a 28-day trial of Blue Diamond and Toyota's GEH2 100 kVA Hydrogen Generator in place of a traditional 100 kVA diesel generator to power the Project's primary construction site. Over the course of the trial, the GEH2 unit powered the Project's temporary facilities including offices, lunchrooms and ablution blocks, in addition to electric vehicle chargers. This trial marks the first time the GEH2 unit has directly powered a primary construction site in Australia without the need or use of an intermediary battery unit. It also represented the longest-running utilisation of the unit at the point of trial in August 2023. The use of the hydrogen unit in place of a traditional diesel generator abated 12.2 tonnes CO_2-e in direct fuel burnt as well as removing tail-pipe emissions on site as the unit does not emit CO_2 or NO_2, only water and filtered air. Not only does this improve air quality outcomes on site, the water could also then used on site for dust suppression. Challenges encountered during the trial related to familiarity with the equipment, including the commissioning and installation process and changing of the hydrogen tanks. However, as a direct outcome of the trial and feedback provided by John Holland, Blue Diamond and Toyota are currently developing controls to assist customers to better manage this process.
Data Focus	12.2 tonnes CO_2-e emissions avoided during the trial through use of the Hydrogen Generator 15dB(A) over a conventional diesel generator. Additionally, site personnel were subjected to lower noise with a reduction in decibels with the hydrogen unit compared to diesel. Should wholesale switch from diesel generators be made, 146 tonnes CO_2-e/year could be abated for each diesel generator replaced.

Initiative Name	HVO 100% Renewable Diesel Trial
Target	**T-25** **30% reduction in energy use/demand from Base Case scenario.**
Phase	Construction and Delivery
Status	Implemented
Initiative Summary	HVO 100% Renewable Diesel Trial demonstrates construction alternatives to diesel.
Initiative Detail	Water treatment is one of the most energy-intensive types of infrastructure to build, involving high volumes of earthmoving, heavy plant, and materials placement. As a result, the Project invested early in researching alternative diesel/renewable blends during the design phase of the Project. HVO (Hydrotreated Vegetable Oil) is a renewable diesel with minimal emissions compared to mineral diesel. It provides a like for like swap for diesel, with no engine modifications or special maintenance regimes required. It presents a viable alternative to diesel for use in the construction sector; however, supply and price have been barriers to adoption in Australia to date. The initiative involved replacing 1,762 litres of business-as-usual diesel with 100% Renewable Diesel or HVO in two generators (70 kVA and 25 kVA) used to power the Project's construction compound. Over the course of the trial, the HVO fuelled generators powered EV chargers and temporary facilities, including site sheds and ablution blocks. This trial represented the first time John Holland had used HVO in its own plant and provided valuable lessons and data to the team regarding HVO use. While reliable supply was an issue for the Project and delays were experienced, with increasing demand and the establishment of a refinery in Singapore, supply and price challenges are expected to diminish. This proof-of-concept trial has shown the applicability of the product, should logistical challenges be overcome.
Data Focus	As a NSW-first for this initiative, it was a proof of concept for larger-scale roll out of HVO for major infrastructure projects. In total, 2kL of HVO was used on the Project, abating 5.6 tonnes CO_2-e of emissions, a 95% reduction by comparison to the same quantity of mineral diesel.

8 Environmental Health

Stakeholder Engagement:

Primary stakeholders concerned with correct management of pollution and emissions are the client (Sydney Water), local councils, community, and regulatory bodies such as the EPA.

Management Approach:

The project's Construction Environmental Management Plan (CEMP) and its sub-plans outline the Project's approach to environmental protection. The Project also operates under an Environmental Protection Licence (EPL), which sets out operating requirements for the Project throughout delivery.

GRI 304: Biodiversity, GRI 306: Effluents and Waste

Objective:

Have no net impact on environmental health through discharges to water, air, and land.

Key risks, opportunities, and stakeholder concerns addressed by this material issue are detail in Section 4.4.4.

Targets under this material issue are tracked through the following:

- Reporting by the Project on environmental construction impacts within the Project's data capture platform Project Pack Web, and published in line with the Project's Environmental Protection Licence (21800).
- Environmental impact modelling as defined within associated Project environmental management plans.
- Inclusions within Design Reports and Issued for Construction documentation.

Target	Detail	Progress
The Project will achieve load and concentration limits within Yarramundi 2 subzone and maintain or improve instream water quality and macroinvertebrate diversity attributable to the Project's operational waterway releases. These will be achieved by meeting the Project-specific water quality objectives (see table 8-8 of Upper South Creek EIS, September 2021) (T-22)	The Project 'Issued For Construction' design report includes details of compliance for tertiary (advanced) treated water, and discharge modelling. This compliance criteria aligns with the requirements listed in table 8-8 of the Project's EIS. To ensure compliance, thorough testing and monitoring will be conducted during the commissioning process. The goal is to gather evidence demonstrating compliance by 2026 as part of Project commissioning.	
Operational noise is within the Project Specific Noise Trigger Levels of 41 dBL at night and 45 dBL day/evening at existing/future residential receivers (T-23)	The Project's Operational Noise Review confirms that the final design complies with Project specific noise trigger levels for both night and day/ evening requirements for existing residential receivers. This confirms that noise produced by the Project during operation will be within levels committed to in the EIS.	
Air quality does not exceed 4 odour units (OU) beyond the boundary of the plant (operational site) (T-24)	Final design air quality modelling demonstrates compliance with requirements. The Project's Odour Management Plan sets out the maintenance and monitoring program to be undertaken during the Project operational phase. This plan has been accepted by the EPA, confirming compliance with required levels.	
Number of significant heritage-related incidents per million hours worked is 0 (T-34)	No significant incidents to date.*	
Number of significant water and discharge related incidents per million hours worked is 0 (T-35)	No significant incidents to date.*	
Number of significant noise-related incidents per million hours worked is 0 (T-36)	No significant incidents to date.*	
Number of significant vibration-related incidents per million hours worked is 0 (T-37)	No significant incidents to date.*	
Number of significant fauna / flora incidents per million hours worked is 0 (T-38)	No significant incidents to date.*	

*A Significant Incident is defined as an environmental incident that has the potential to result in serious or actual threat to the environment.

8.1
Environmental Health – Case Study

Initiative Name	Communication of Project Environmental Impacts
Target	**T-39** **Community and Stakeholder Engagement Plan (CSEP) inspections are conducted monthly** **T-40** **Avoidable complaints of less than 12 per calendar year for AWRC and less than 24 per calendar year for Pipelines**
Phase	Construction and Delivery
Status	Ongoing
Initiative Detail	The Project published documentation of environmental mitigation measures and surveyed the community to request feedback on these measures for the second time in November 2024. Public disclosure of results of environmental and social impact assessments noise and vibration data, vibration modelling maps, construction noise and vibration impact statements are located on the Project page of the Sydney Water website.
Data Focus	The environmental performance figures communicated reflected John Holland's commitment to compliance with project approvals and environmental requirements. The Project's strong environmental performance since the Project commenced in December 2022 is demonstrated in the following ways: ■ Identifying, obtaining and implementing Project approvals from both State and Commonwealth regulators ■ Minimal community complaints on environmental matters over three years of construction – 29 in total ■ No significant environmental incidents or issues, despite working within and adjacent to sensitive receivers, including residential, educational, places of worship, and environmentally sensitive areas ■ Two Remediation Action Plans (RAPs) and a long-term environmental management plan (LTEMP) successfully approved/endorsed by the EPA accredited Site Auditor for contamination ■ Approximately 185,000 tonnes of spoil safely reused on the Project, including contaminated material, from design optimisation and work with regulators, including the Project's EPA accredited Site Auditor for contamination ■ Successful design, planning and execution of three waterway crossings, two discharge structures, and the restoration of a riparian corridor within the Project boundary. Key subject matter experts were involved at relevant Project phases to ensure critical requirements driving the desired environmental outcome were achieved, including a geomorphologist, an aquatic ecologist, and a certified professional in erosion and sediment control (CPESC).

9 Governance

Stakeholder Engagement:

The Project's governance includes alignment with requirements provided by the client (Sydney Water), the Project's Management Committee and Senior Leadership Team, and from John Holland Group.

Management Approach:

Details of the Project's Governance approach have been outlined above in Section 4.2. Governance processes relating to integration of sustainability are further detailed in Section 4.4.

GRI: General Disclosures, GRI: Material Topics

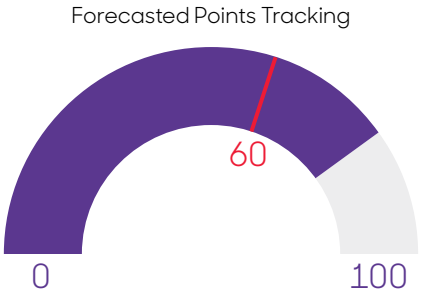
Objective:

Value-for-money decision-making which integrates economic, social, environmental aspects.

Key risks, opportunities, and stakeholder concerns addressed by this material issue are detail in Section 4.4.4.

Targets under this material issue are tracked through the following:

- Management of the Infrastructure Sustainability (IS) Pathway tracker.
- Finalisation of the Project's energy and materials modelling and data inputs for ISC purposes.
- Confirmation of inclusion of design initiatives in the Project through review of As-Built documentation.
- Extracts from the Project's risk and opportunity register.

Target	Detail	Progress
Achieve an ISC rating of 'Gold' (>60 Points) under TM v2.1 (T-1)	The Project is currently on track to achieve its ISC Gold rating target, with current forecast showing achievement of least 79 points. The Design Round 2 submission is targeted for submission in Q3 2025. 	
Achieve 5 innovation points under ISC (T-2)	Nine innovation points were verified in Design Round 1, including a World-first Innovation, an Australian-first Innovation, and a Market Transformation Innovation. Updated and additional details were requested in order to verify a State (NSW)-first Innovation in the Project's second round Design verification. This has been provided and resubmitted for final verification.	

10 Natural and Heritage Assets

JOHN HOLLAND

Stakeholder Engagement:

Protection of natural and heritage elements affected by the Project involved a collaborative approach with several external stakeholders including Dharug Traditional Custodians, local community members and groups, local councils, and other government entities.

Management Approach:

Key risks, opportunities, and stakeholder concerns addressed by this material issue are detail in Section 4.4.4.

GRI 304: Biodiversity, GRI 413: Local Communities

Objective:

Protect, restore, and enhance natural and heritage assets

Key risks, opportunities, and stakeholder concerns addressed by this material issue are detail in Section 4.4.4.

Targets under this material issue are tracked through the following:

- Inclusions within Design Reports and Issued for Construction documentation.
- Urban Design and Landscape construction and operational Management Plans.

Target	Detail	Progress
Identify, maintain, and enhance Aboriginal and non-Aboriginal heritage assets and values within the Project's urban and landscape design by integrating requirements into design documentation by 2026 (T-17)	The integration of identified assets and values continues throughout the design and construction phase. A key initiative, AWRC Site and Access Road Naming, was undertaken and completed in the previous reporting period. Additional heritage considerations were undertaken in this reporting period. Refer to the Natural and Heritage Assets Case Study for details.	
Develop and implement the Upper South Creek Project Rehabilitation Management Plan. (T-18)	Plan has been developed and is being implemented through the Project's creek rehabilitation works along the pipelines portion of the Project. These works have been successful and are described in detail below.	
The Project will regenerate and landscape the riparian area adjacent (Wianamatta-South Creek), including the reconnection of an on-site billabong to support Western Sydney's green spine development before the operational commencement of the plant (T-20)	The regeneration of the riparian area and commitment to reconnecting the on-site billabong has been incorporated into the Urban Landscape Design. The case study has been presented below, showing the Project's outcomes and impact through this initiative.	

10.1
Natural and Heritage Assets – Case Study

Initiative Name	First Nation Engagement and Incorporation into the Project's Urban and Landscape Design
Target	**T-19** **Develop and implement 100% of the urban design landscape themes/recommendations within the Stage 1a Operational Space Urban Design Landscape Plan.** **T-20** **The Project will regenerate and landscape the riparian area adjacent Wianamatta-South Creek, including the reconnection of an on-site billabong, to support Western Sydney's green spine development before the operational commencement of the plant.**
Phase	Design, Construction, and Delivery
Status	Ongoing
Initiative Detail	The Project has continued to make significant strides in incorporating the feedback and cultural values of Dharug Traditional Custodians into the Urban Design Landscape Plan (UDLP). These efforts have not only enhanced the physical built environment but also fostered cultural appreciation, ecological sustainability, and economic opportunities for the local First Nations community. Key updates and progress over the past year include: **1. Collaboration with Traditional Custodians and Local First Nations Businesses** ■ Seed Collection and Replanting: Local Aboriginal business Muru Mittigar was engaged to collect seeds from trees requiring removal within the construction footprint. These seeds were grown into tubestock and replanted on-site, ensuring the preservation of site-endemic species. This initiative, driven by Traditional Custodians' expertise, supports ecological resilience of endemic species and has led to more effective and targeted landscape outcomes. ■ Economic Opportunities: The involvement of Muru Mittigar highlights the Project's commitment to creating economic opportunities for the First Nations community while promoting ecological sustainability. **2. Preservation and Restoration of Aboriginal Heritage** ■ Retention of a Potential Scar Tree: The preservation of the potential Scar tree within the riparian corridor, as identified by Traditional Custodians. This continues to honour its cultural significance and the ancestral stories it may represent. This initiative respects the tangible and intangible heritage values of the Dharug people. ■ Restoration of the Billabong: The removal of the artificial bund wall has allowed the billabong to return to its natural state, revitalising the ecosystem and supporting traditional food sources and native flora and fauna.

Initiative Detail	■ **Stabilisation of Wianamatta-South Creek:** Advice from the Aboriginal Stakeholder Advisory Group was key in the decision to adopt a less invasive approach to stabilising highly eroded sections of Wianamatta-South Creek. Native planting methods have replaced earlier plans for regrading and battering slopes, aligning with the Dharug community's values of respecting and preserving natural waterways. **3. Landscape-Led Design Approach** ■ **Restoration of Cumberland Plain Woodland:** The Project has prioritised the restoration of the Cumberland Plain Woodland and the Wianamatta-South Creek green spine. This includes the regeneration of diverse flora and fauna, with a focus on species of local provenance. The design respects the natural topography, preserving clear links between ridgetops and creek lines, and aligns with Dharug values of interconnectedness and balance in nature. ■ **Integration of Dharug Knowledge:** The selection of Plant Community Types (PCTs) and species for replanting has been informed by the Aboriginal Stakeholder Advisory Group, ensuring the restoration of traditional food sources, medicinal plants, and cultural resources. **4. Cultural Salvage and Return of Artefacts** ■ **Returning Artefacts to Country:** In consultation with the Aboriginal Stakeholder Advisory Group, cultural artefacts salvaged from the Project site are being returned to Country rather than being displayed in museums. This initiative strengthens the Dharug community's cultural connection to their ancestral objects and supports self-determination by allowing Traditional Custodians to manage and preserve their heritage according to their cultural values. **5. Honouring Dharug Culture Through Design** ■ **Building Façades and Materials:** The use of building materials and colours inspired by the local earth and landscape reflects the cultural heritage of the Dharug people. This design approach creates a visual connection between the built environment and the natural landscape, fostering a sense of place and identity. ■ **Inclusion of Dharug Language:** Aboriginal place names and signage have been incorporated into the urban design, promoting reconciliation and increasing community understanding of Dharug history and culture. For example, the AWRC has been renamed to Badu Yarragul Water Resource Recovery facility in consultation with Traditional Custodians, supporting the revitalisation of the Dharug language. **6. Recognise Country Guideline Implementation** ■ **Walks on Country:** Early engagement with Aboriginal stakeholders through Walks on Country has informed the detailed planning and design of the Project. An additional fifteen workshops have since been undertaken with the Aboriginal Stakeholder Advisory Group and Traditional Custodians. This process has ensured that the cultural values and site context identified by Traditional Custodians are integrated into the design. During this reporting period, the Project has successfully progressed in maintaining and enhancing traditional Aboriginal values and assets. By preserving the potential Scar tree, restoring the billabong, investigating the return of artefacts to Country, and supporting the restoration of woodland and creek systems, the Project honours and preserves Dharug heritage. Additionally, the use of Dharug language in naming and signage, along with the integration of cultural elements into the built environment, fosters a deeper connection between the land, its history, and the community. These initiatives demonstrate a commitment to reconciliation, cultural preservation, and ecological sustainability, ensuring that the Project benefits both the local community and Traditional Custodians.

10.2
Natural and Heritage Assets – Case Study

Initiative Name	Riparian Corridor 7 Waterway Restoration
Target	**T-12** **≥ 2000 white feather honeymyrtle seeds will be collected from site, germinated and returned to Project site as tube stock for use in permanent landscaping works to use in the regeneration of the Project riparian corridor.** **T-20** **The Project will regenerate and landscape the riparian area adjacent Wianamatta-South Creek, including the reconnection of an on-site billabong to support Western Sydney's green spine development before the operational commencement of the plant.** **T-31** **80% diversion of other inert resource outputs from entering landfill.** **T-32** **The Project will utilise ≥ 300 tonnes of salvaged and collected woody debris (logs and root balls) in the Project's riparian corridor rehabilitation and revegetation works.**
Phase	Design, Construction, and Delivery
Status	Complete
Initiative Summary	Inclusion and engagement of First Nation parties within the delivery and design of the Project's physical built environment.
Initiative Detail	Develop and implement the Upper South Creek Project Rehabilitation Management Plan. The Project regenerated the riparian area adjacent to the Project along Wianamatta-South Creek, including the reconnection of an on-site billabong. This restoration supported Western Sydney's green spine development. Continued management of the creek will form part of the site's ongoing operational management. The waterway restoration work was planned in the previous reporting period and undertaken during construction. The initiative has resulted in an improved and enhanced state for aquatic and riparian habitat across all waterways impacted by the Project. This progress builds upon the Project's initial objectives and was successful in restoring and revegetating the riparian corridors and banks of watercourses at Wianamatta-South Creek, Cosgrove Creek, Oaky Creek, and the Nepean River. The restoration efforts adhered to the principles outlined in the Guidelines for Vegetation Management Plans on Waterfront Land (NSW Office of Water, DPI 2012). The focus remained on restoring native species and specific Plant Community Types (PCTs) in each area. The Project team's collaboration with experts in geomorphology, aquatic ecology, and relevant agencies has ensured that the design and implementation of restoration works align with the natural landscape and ecological values of the sites. The use of the Biodiversity Assessment Method will ensure that the restoration efforts not only mitigate the impacts of construction but also achieve a net ecological gain, enhancing the biodiversity and ecological health of the riparian corridors. This progress demonstrates the Project's commitment to sustainable environmental practices and its role in contributing to the long-term health of these critical waterways.
Key Achievements	**1. Erosion Control and Stabilisation** ■ The Project successfully reduced potential erosion caused by construction works through the installation of stabilising controls, such as coir logs and jute mesh, at key locations. ■ Creek banks were reshaped in critical areas to divert surface water flows and improve water movement into the waterways from adjacent land. ■ Habitat logs were introduced, and the riparian zone was revegetated to further stabilise the area and enhance ecological resilience. **2. Habitat Creation for Native Fauna** ■ Hydro-mulch, combined with stabilising controls like jute mesh, provided short-term erosion control while native vegetation established. ■ Habitat logs were introduced to support aquatic species. ■ Invasive plant species and litter were removed from the creeks, improving habitat quality. ■ More than **890 m3** of logs from trees felled elsewhere within the Project alignment were installed in the riparian zone to create additional habitat for native fauna.

Key Achievements	**3. Restoration Scope and Scale** ■ Restoration efforts were completed across three waterway crossings, two discharge structures, and a large riparian corridor within the AWRC Project footprint. ■ Approximately **57,000m²** of riparian corridor at the AWRC was restored, including the installation of **304,843 native plants** using a combination of direct planting and hydroseeding. ■ Along the pipeline alignment, **1,764 linear metres** were restored, covering **2,814.49m²** of total restoration with **17,696 direct plantings.** **4. Seed Collection and Propagation** ■ The Project collected **2,200 Melaleuca decora seeds** and **660 Casuarina glauca seeds** from trees removed from the Project footprint. ■ These seeds were propagated into tubestock and replanted within the AWRC Riparian Corridor, maintaining the local genetic diversity of these plant communities. **5. Biodiversity Outcomes** ■ Restoration efforts are forecast to produce a **64.4% net ecological gain**, as measured by the Biodiversity Assessment Method (BAM). ■ This gain reflects the rehabilitation of native vegetation and improved biodiversity outcomes across the Project footprint.

11 Resilience

JOHN HOLLAND

Stakeholder Engagement:

Primary stakeholders concerned with climate change adaptation and wider resilience are the client (Sydney Water) utility organisations, and other governmental institutions, such as emergency services, state government departments and local councils.

Management Approach:

Through undertaking a comprehensive Climate-change Risk Assessment and integrating adaptation and mitigation measures for all extreme and high risks, the project can be considered resilient to foreseeable shocks and stresses. This is outlined in the Project's Resilience Action Plan.

GRI 201: Economic Performance, GRI 302: Energy, GRI 305: Emissions

Objective:

Adopt a resilience approach when considering climate change risks, climate change impacts, and implement adaptation solutions.

Key risks, opportunities, and stakeholder concerns addressed by this material issue are detail in Section 4.4.4.

Targets under this material issue are tracked through the following:

- Resilience Action Plan developed for the Project.

Target	Detail	Progress
Reduce 100% of extreme and high-priority direct climate and natural hazard risks to an acceptable risk level (T-21)	Climate change workshops, based on Sydney Water's Reference Design, were initially conducted with the Project's design team as well as internal and external stakeholders. These workshops aimed to develop strategies to mitigate 100% of extreme and high-priority direct climate and natural hazard risks. Additional workshops were held during the detailed design phase to incorporate the latest updates and design changes. An Addendum Resilience Plan was subsequently developed, building on the initial risks and opportunities identified. This plan also reviewed the direct and indirect impacts, along with proposed treatment options. As a result of implementing additional treatment measures, the three high risks previously identified for the Project under the 2070 projection (RCP 8.5) were reduced to one: extreme heat events. Furthermore, stakeholder workshops identified eight additional climate-related shocks and stresses, with twelve of the total 45 risks deemed 'likely' to impact AWRC operations. This number was further reduced to 10 during the annual review of the finalised Addendum Resilience Plan, as additional mitigation measures were identified and implemented by the design team. These updates are reflected in the tables below. All risks and proposed mitigation measures were continuously monitored throughout the design development process to ensure alignment with the climate change risks and opportunties assessment. Mitigation measures have since been embedded into associated design reports, drawings, and Management Plans, as well as, where applicable, commissioning and operational plans and Standard Operating Procedures (SOPs). This will ensure the governance and long-term management of the treatment options throughout Operations.	

Risk ID	Climate variable	Change in climate variable	Risk imapct	Risk level (Arup)	Risk level (updated)
5	Extreme heat events	Increased days >35°C	More hazardous outdoor working conditions due to extreme heat	High	High
13	Extreme weather events	More frequent and extreme storm events	Increase in frequency of damaging storms e.g., hail, extreme wind, affecting exposed equipment	High	Medium
14	Rainfall	Increased precipitation intensity	Increased intensity of peak wet weather flows to AWRC.	High	Medium

Likelihood	Maximum risk level			
	Low	Medium	High	Extreme
Rare	1	1	0	0
Unlikely	12	12	0	0
Possible	1	8	0	0
Likely	0	8	2	0
Total	14	29	2	0
			Total	**45**

12 Society and Community

JOHN HOLLAND

Stakeholder Engagement:

Local Community and Social Stakeholder are described in Section 4.3. Beyond these groups, the client and local government bodies are involved in ensuring positive social outcomes.

Management Approach:

The Project's approach is also outlined above in Section 4.3.

GRI 413: Local Communities

Objectives:

Be a leader in social responsibility by having the well-being of the community and stakeholders at the forefront of delivery, and create green and vibrant spaces through landscape-led urban design and landscaping.

Key risks, opportunities, and stakeholder concerns addressed by this material issue are detail in Section 4.4.4.

Targets under this material issue are tracked through the following:

- Inclusions within Design Reports and Issued for Construction documentation
- Urban Design and Landscape operational management plans.

Target	Detail	Progress
No greater than 1 horizontal lux level (over the project boundary) (T-14)	Project lighting design demonstrates compliance with this target.	
No greater than 1% upward light ratio (T-15)	The Project lighting design has exceeded this target, achieving an upward light ratio of 0% and a horizontal lux level of no more than 0.1. This effectively mitigates obtrusive light spill and sky glow. The Project has been verified at Level 3 of the IS v2.1 Design Rating's Env-5 credit.	
Achieve Level 2 for Urban Design and Landscaping (Pla-2 under ISC v2.1) (T-16)	The Project achieved Level-2 of the Pla-2 credit (Place-2: Urban and Landscape Design) and continues to track towards achievement in As-Built. All design requirements for the Pla-2 have been fulfilled by the Project, inclusive of the As-Built requirements being incorporated into the Project's Urban Design Landscape Plan and associated appendices for construction delivery.	
Develop and implement 100% of the urban design landscape themes/recommendations within the Stage 1a Operational Space Urban Design Landscape Plan (T-19)	The Project has integrated all recommendations	
Community and Stakeholder Engagement Plan (CSEP) inspections are conducted monthly (T-39)	All Required inspections have been completed for the reporting period.	
Avoidable complaints of less than 12 per calendar year for AWRC and less than 24 per calendar year for Pipelines (T-40)	Avoidable complaints have been significantly below the threshold with one for the AWRC and three for Pipelines. It is worth noting that within the reporting period, eight compliments were received relating to communication and Project delivery (one for AWRC and seven for pipelines).	

The John Holland Community Team and Sydney Water's Wonders of Water team at the Wallacia Public School Fair.

First Nations Participation and Sustainable Employment:

The Upper South Creek Project remains steadfast in its commitment to expanding opportunities for local First Nations peoples. Unchanged from the previous reporting period, our approach to increasing First Nations employment, training and business participation is guided by the objectives outlined in the NSW Government Aboriginal Procurement Policy (APP) 2021.

Our Project targets include the achievement of a 3% First Nations employee workforce and a 3% Aboriginal participation (APIC) spend, amongst several other social and sustainable employment targets, aligning with our Wfs-3 IS Rating credit requirements (Workforce-3: Diversity and Inclusion).

The Upper South Creek Project recognises the significant contributions of our valued business partners, including Supply Nation recognised enterprises such as BL Safety and Workwear, and Lack Group Traffic, among others, in achieving these targets.

Their firm commitment and collaboration in advancing First Nations participation has been instrumental in surpassing our goals by over three times with a 9.17% Aboriginal business spend. We intend to continue building on these achievements until the Project's completion.

Upper South Creek's commitment to exceeding the minimum spend requirement and engaging Supply Nation certified Aboriginal businesses serves as a model for driving Aboriginal participation and fostering economic opportunities.

We are proud to continue our celebration of National Reconciliation Week and NAIDOC Week this year, as well as including Acknowledgement of Country messaging at all of our major events. Our workforce inductions still include local Aboriginal cultural awareness content that has been co-developed with the Dharug Traditional Custodians.

Full details of social and sustainable procurement and employment are provided in the Project's Aboriginal Participation Plan.

12.1
Society and Community – Case Study

Initiative Name	First Nations Participation
Target	**Development and delivery of the Project Aboriginal Participation Plan (APP)**
Phase	Construction and Delivery
Status	In Progress
Initiative Detail	During the early design phase, Sydney Water and John Holland, with the support of GHD established a Project Aboriginal Advisory Group. The group of seven members was appointed following a formal Expression of Interest process. The Advisory Group has worked alongside the Project team to drive a Country-first urban design approach, increased opportunities for First Nations suppliers and workers and co-designed initiatives that preserve Aboriginal language and culture. The Project team has consulted with the Advisory Group over a period of almost two years. Through this engagement effort, which has included a Smoking Ceremony, Walks on Country, workshops, and knowledge sharing, has emerged several opportunities: ■ Consultation on the development of the Project Aboriginal Participation Plan. ■ Implementation of the agreed methodology for restoring the riparian zone of Wianamatta-South Creek. ■ Collection and propagation of endemic seed stock from the Project site for use in restoration planning in the riparian corridor at Wianamatta-South Creek. ■ Retention of significant trees. ■ Removal of an artificial bund, which reconnected two existing billabongs adjoining Wianamatta South Creek, returning the billabong to its natural pre-development state. ■ Site and road naming, described in detail in the 2023/2024 sustainability report. ■ Co-creation of an education display for the AWRC Administration Building that interprets the Aboriginal history of the area. ■ Repatriation of artefacts that were salvaged from the AWRC site to Country.

Data Focus	Engagement with the Aboriginal Advisory Group has led to significant initiatives being implemented by the Project, including:
	■ Produced and implemented the Aboriginal Participation Plan.
	■ The AWRC operational site and access road names were chosen from the Dharug language:
	  ■ Badu Muru, meaning freshwater path, has been given to the site's access road. The name has been approved by the Geographic Names Board and registered with Google Maps.
	  ■ The site name will be formally announced during the AWRC opening event in 2026.
	■ Wianamatta-South Creek riparian zone has been revegetated with Cumberland Plain Woodland, including plants that were propagated from seeds collected during tree removal, detailed above.
	■ A possible scar tree has been preserved.
	■ The bund has been removed from the billabong, allowing its re-naturalisation.
	■ A Dharug artist, recommended by the Traditional Custodians, has been commissioned to produce a work of art that interprets the area's Aboriginal history and the site name. The artwork will be displayed in the foyer of the AWRC Administration Building.
	■ The location for the repatriation of artefacts back on Country has been agreed and will be documented in the Green Space Master Plan and registered with AHIMS.
	A total of $15.5 million in project spend was directed toward Aboriginal businesses, significantly exceeding the project target of 3% addressable spend, with actual spend reaching 9.17%. In addition, 235 members of the First Nations community were employed across skills of high industry demand, supported by training and career development initiatives. The target for First Nation employment was set at a 3% of the workforce, and in April 2025, 2.56% of employees were First Nation, with the overall project aiming to reach or exceed this benchmark over its duration. These areas included:
	■ Concrete Placing.
	■ Boom Operators.
	■ Dogmen.
	■ Boilermakers.
	■ Crane Operators.
	■ Mechanical Fitters/Boilermakers.

Project partner Muru Mittigar delivers tubestocks grown from seeds that were collected from the project site during tree removal.

2025 celebration of NAIDOC Week at the AWRC – Traditional Custodian and Aboriginal Advisory Group member, Shane Laws, gave the Welcome to Country. (L to R: Richard Ioffrida John Holland Project Director, former NRL player and guest speaker Dean Widders, Mick McIlveen John Holland Construction Director, Callum Kelly from Glascott and Shane Laws, Dharug Traditional Custodian)

12.2
Society and Community – Case Study

Initiative Name	Stakeholder Management – Continuing Great Outcomes
Target	**T-40** **Avoidable complaints of less than 12 per calendar year for AWRC and less than 24 per calendar year for Pipelines.**
Phase	Construction and Delivery
Status	Ongoing
Initiative Detail	The Upper South Creek Project presented the project team with a diverse range of stakeholders and communities (including First Nations and CALD) across a long and linear Project area. Working closely with Sydney Water and within their Engagement Framework and Approach, the Project's resultant Community and Stakeholder Engagement Plan set-out a detailed approach to community and stakeholder engagement. Through focused engagement activities, the community was provided with opportunities to learn more about the Project, ask questions, and provide feedback on how the works would affect them. The emphasis on in-person engagement provided many opportunities for feedback to be collected and responded to through adjustments to schedule and methodology. In many instances, these adjustments minimised or even eliminated impacts for stakeholders and community members. Engagement activities included: ■ Ongoing involvement of the Project Aboriginal Stakeholder Advisory Group. ■ Workshops, formal briefing sessions and joint inspections. ■ Inviting feedback on designs and Management Plans. ■ A substantial door knocking effort (more than 2,100 homes and businesses). ■ 14 pop-ups at local markets and community events. ■ 425 meetings and working groups. ■ Site visits for residents closest to Project activities. ■ More than 340,000 work notifications delivered to homes and businesses. ■ School careers in construction events and community days. Resulting in 73 conversations with community members in languages other than English, the Project's efforts to ensure the engagement program was inclusive as possible. As such, several initiatives were implemented that targeted the CALD audience, including: ■ Engaging a translating and interpreting consultancy to re-write the translation panel with a stronger call to action. ■ Moving the translation panel from the back page to the front page of all monthly notifications so readers were more likely to see their own language represented. ■ Training the community team on the use of the Google Translate App to be used during door knocking to facilitate conversations in languages other than English. ■ Engaging a Vietnamese translator for pop-ups. ■ Translating flyers into Simplified Chinese and Vietnamese. ■ Advertising traffic changes and the Project complaints line in multiple languages. ■ These activities have contributed to positive connection with residents, landowners, and other stakeholders, ensuring they had the opportunity to influence and were as prepared as possible for the work. A focus on delivering an inclusive engagement program also bolstered goodwill through works that were often drawn-out and highly impactful.
Data Focus	Three avoidable complaints were received during the reporting period for Pipelines and one was received for the AWRC. These figures are under the allowable target threshold. Eight compliments were received during the reporting period about communication and Project delivery (one for AWRC and seven for pipelines).

An interpreter from Multicultural Marketing and Management explains Project works happening in the Cabravale Leisure Centre car park.

12.3
Society and Community – Case Study

Initiative Name	Stakeholder Satisfaction
Target	**At least 75% of respondents (key stakeholders) were satisfied that their input had a positive impact on the Project.**
Phase	Design, Construction, and Delivery
Status	Target Achieved
Initiative Detail	A survey of key stakeholders was completed in mid-2024 to gather feedback about how satisfied they were that their inputs regarding their priority issues influenced Project outcomes during the Design Phase. Around 50 stakeholders were provided with an email survey containing four questions using a 10-point scale to rate their satisfaction: 1. Active engagement with the Project is defined as participation and contribution through attending public meetings or forums, providing feedback and suggestions, asking questions, voicing concerns, or actively collaborating with the Project to ensure that the Project meets their needs and interests or those of the community. 2. How satisfied were with your interactions with the John Holland team in 2023? 3. Thinking about any issues you raised with John Holland in 2023 (before construction started), how satisfied were you that your requests were acted upon by the Project team? 4. Thinking about how John Holland engaged with you in 2023, overall how satisfied were you with their performance? A fifth question encouraged respondents to provide any further feedback or suggestions via an open text field. Surveys were personalised with a list of priority issues raised by each stakeholder. Key stakeholders were defined as those community representatives (i.e. directly affected landowners, local councils, government agencies, and the Aboriginal Stakeholder Engagement Advisory Group for the Project) who have actively engaged with the Project team about one or more issues of priority. The issues they have raised are those that require actioning by the Project team to influence and drive an outcome for the design or delivery of the Project. Active engagement with the Project is defined as participation and contribution through attending public meetings or forums, providing feedback and suggestions, asking questions, voicing concerns, or actively collaborating with the Project to ensure that the Project meets their needs and interests or those of the community. Three follow-up attempts were made to encourage participation. Key stakeholders will be surveyed again for the As-Built phase, towards the end of 2025.
Data Focus	The stakeholder satisfaction survey was conducted between Monday 20 May and Wednesday 17 July 2024 with 87.8% participation in the survey. 83.7% of the respondents were satisfied their input influenced Project outcomes or had a positive impact on the Project during the design phase.

12.4
Society and Community – Case Study

Initiative Name	High School Careers in Construction Program
Target	**T-16 (Diversity Inclusion Management Plan)** **Deliver a minimum of two educational activities each year at schools located within the Project pipeline alignment and within a 30km radius of the Advanced Water Recycling Centre.**
Phase	Construction and Delivery
Status	Target Exceeded
Initiative Detail	Prioritise schools with a high demographic of First Nation and CALD students to educate them about the possibilities and variety of roles in construction. We strive to be a good neighbour and look for opportunities to give back to the communities in which we work. This has included providing opportunities for Science, Technology, Engineering, Mathematics (STEM) students, particularly from local schools, to learn more about the Project and construction, engineering, and environment careers. Emphasis has been on engaging with First Nations and female students, cohorts typically under-represented in the construction industry. The Project team has facilitated careers in construction sessions that include a careers panel, speed networking, and a STEM activity. Students have been hosted for site tours along the pipeline alignment and at the AWRC. The team has also staffed information stands at regional careers fairs and school careers fairs and participated in two Industry Connection Days at Warragamba Dam.
Data Focus	In the reporting period, eight Careers in Construction events were held, including information stands at careers fairs, site excursions and presentations, networking, and STEM-focused activities with school groups. This included two events at Chifley College, Bidwell Campus, involving conversations with more than 200 students. At Chifley College, around 24% of students identify as First Nations. The Project team also participated in KARI's 2025 Careers Expo, speaking to 142 students and adults about a career in construction. KARI is a First Nations organisation that provides community, employment, procurement services, sports, health and lifestyle services. A further six events were held in the second half of 2025 before publication of this report. Overall, through its Careers in Construction Program, the Project has so far engaged with: ■ 723 students, including 343 females. ■ 54 students during a visit to a project site. ■ 76 schools. ■ Nine high school students for their week-long work experience placement.

Love from the Work experience > students of CHHS!! <

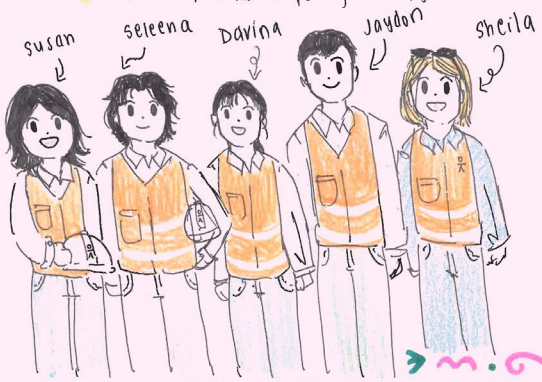
I have truly cherished the 5 days I've had the opportunity to spend at John Holland! I've learnt so much about the industry but have also met some wonderful people I would otherwise have never met. I've really enjoyed being on site trying new things, getting out of my comfort zone and being surrounded by such a happy atmosphere. This valuable experience was all made possible because of you! Thank you Sheila!
- Davina

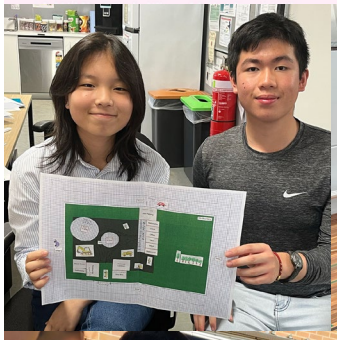
Thank you so much for having us at John Holland! I really appreciate the effort you put in to give us first hand experience on the construction industry. Thanks to you I was able to learn so much about the industry. Thank you so much Sheila!
- Susan

I have enjoyed having the opportunity of working with you and John Holland. Thank you for putting in lots of effort to organise this work experience for us and thank you for inviting us here. Even though it has only been a week it changed my thoughts on construction. Being here and learning both in office and on site taught me the value of hard (camp work). Thanks to you Sheila I've met a diverse variety of people with different background knowledge. I really enjoyed my time here, it felt like a second family. Thank you very much Sheila - Jaydon

The past 5 days have been nothing short of informative, amazing and eye-opening. Everyone I've met have been welcoming and clearly devoted to their jobs, enough to be able to explain the heavily simplified versions to me. The site walks have been incredibly fun, in seeing the scale of this important facility, and none of this would have been possible without your connection to our school. I can't thank you enough Sheila, and everyone else who gave their time as busy as they are to inform us and talk with us instead of to us. Thank you so much Sheila.
- Seleena

P.S. Can you tell Naomi, Denise & Cindy from construction that I liked talking with H the most, and that I hope they like the plywood models.





13 Water Use Management

JOHN HOLLAND

Stakeholder Engagement:

Primary stakeholders concerned with resource efficiency and lowering of emissions are the client (Sydney Water)and other governmental institutions, such as emergency services, state and federal government departments and local councils.

Management Approach:

Feasible sustainability initiatives are developed for inclusion as options in the Project's design and delivery phases. Early inclusion of resource efficiency into the Project is paramount for achievement of targets.

GRI 303: Water and Effluents

Objectives:

Supply recycled water for non-drinking purposes for use in homes and businesses, for agricultural purposes or irrigation of public spaces, and minimise water use and choose appropriate water sources.

Key risks, opportunities, and stakeholder concerns addressed by this material issue are detail in Section 4.4.4.

Targets under this material issue are tracked through the following:

- Reporting by the project on water consumed, used, and water source within the Project's data capture platform Project Pack Web
- Operational and construction water modelling by the design team for ISC purposes
- Inclusions within Design Reports and Issued for Construction documentation.

Target	Detail	Progress
25% reduction in water demand from Base Case scenario (T-5) – Design Phase	The Project's water balance model has been verified by the ISC at a 33% reduction in potable water consumption.	
25% reduction in water demand from Base Case scenario (T-27) – Construction Phase	The Project's water balance model has been verified by the ISC at a 33% reduction in potable water consumption	
25% reduction in total potable water from Base Case scenario (T-6)	The Project's water balance model has been verified by the ISC at a 33% reduction in potable water consumption. Key initiatives include: ■ Re-using hydrostatic testing water and site captured rainwater ■ Storage and circulation of reverse osmosis water for reuse.	
20% reduction in potable water use from Base Case scenario (T-28)	89% potable water replacement was achieved by the Project, verified under the IS Rating's Wat-2 credit	

13.1
Water Use Management – Case Study

Initiative Name	Stakeholder Management – Continuing Great Outcomes
Target	**T-5, 6, 27 and 28** **Potable water reduction and replacement targets.**
Phase	Construction and Delivery
Status	Ongoing
Initiative Detail	**Design Phase** The Project's design incorporated innovative water-sensitive urban design and operational efficiencies to significantly reduce water demand and maximise reuse. Key initiatives included: ■ **Eliminating irrigation needs:** By restoring natural waterways, planting drought-tolerant species, and enhancing soil permeability, the Project achieved a **15,321 ML reduction** in potable water demand over the asset's lifecycle, equating to 6,100 Olympic sized swimming pools. ■ **Water-sensitive urban design (WSUD):** Integrated features such as bioretention basins, grass swales, and contour planting to retain water in the landscape, reduce runoff, and improve groundwater recharge. These measures contributed to a **31% water reduction in lifecycle water use**, demonstrating the effectiveness of sustainable design principles. ■ **Reverse osmosis permeate (ROP) reuse:** Designed to replace potable water in operational processes such as chemical dosing and cleaning, ROP water will replace **4,827 ML** of potable water demand during operations, reducing reliance on mains water. Water used as chemical carrier water is typically potable water in wastewater treatment plants. ROP water was assessed for suitability and quality, accepted for chemical dosing purposes, and integrated into design. ■ **Recycled Effluent (RE):** A total of 27,863 ML of Recycled Effluent will be used across the Project's life-cycle, further reducing reliance on municipal water. RE will be used in place of potable water for activities such as odour control and inlet works (e.g. screening and sluices). This figure represents 82% of the Project's water demand. ■ **Removal of primary sedimentation tanks (PSTs):** This design change reduced water demand for chemical dosing and cleaning, while also lowering operational water use. ■ **Upgraded water fixtures:** High-efficiency fixtures with 4-star Water Efficiency Labelling and Standards (WELS) ratings were incorporated into the administration building, reducing water use in staff amenities.

Initiative Detail	**Construction Phase** During construction, the Project implemented innovative strategies to reduce water use and maximise reuse, achieving significant savings. Key initiatives included: ■ **Hydrotesting water reuse:** Water used for pipeline and water retaining structures testing was reused across multiple tests, reducing potable water demand. ■ **Temporary construction basins:** Captured stormwater runoff for reuse in dust suppression, reducing reliance on potable water. ■ **Rainwater harvesting**: Installed rainwater tank at the main compound to supply non-potable water for uses such as toilet flushing and urinals. ■ **Dust suppression optimisation:** Used polymer sprays and spray-sealed access roads to minimise water use for dust control. ■ **Street sweeping with rainwater:** Partnered with subcontractors to use off-site rainwater harvesting facilities for street sweeping, further reducing potable water consumption. ■ **Stabilised access and rumble grids:** Reduced the area requiring for street sweeping, minimising water use during construction. ■ **Optimised construction methodology:** Optimised trenchless pipelaying methodology from micro-tunnelling (pipejacking) to horizontal directional drilling (HDD) significantly shortened construction time and reduced water usage for plant and equipment. This construction methodology reduced water consumption by **36%** compared to traditional micro-tunnelling techniques, while also minimising environmental impacts.
Data Focus	By implementing feasible water-saving initiatives during both the construction phase and the operational life of the Project, a total potable water reduction of **33%** was achieved. These efforts enabled the Project to replace potable water with non-potable, harvested water. Discounting water that must be potable (e.g. drinking, hand washing), the Project is designed to meet **99% of remaining water demand** using alternative sources, including recycled effluent, reverse osmosis permeate, and rainwater, demonstrating our leadership in water conservation. With the additional sourcing of 13% of construction water from alternate sources, a Project life-cycle replacement of 89% has been achieved and integrated into the Project's final design. This approach has been verified by the Project's IS Rating submission (under the Wat-1: Avoiding Water Use credit). This equates to a non-potable water consumption of 5,263ML against a total consumption of 5,917ML over the Project's life-cycle of 50 years.

14 Diversity and Inclusion

JOHN HOLLAND

Stakeholder Engagement:

Primary stakeholders concerned with Diversity and Inclusion initiatives align with those outlined in Section 4.3 and include local communities, local councils, and government bodies.

Management Approach:

Outlined in the Diversity and Inclusion Management Plan (DIMP) and aligned with the Project's Community and Stakeholder Engagement Plan, the Project delivers Diversity and Inclusion initiatives, outcomes, and benefits through engagement with local partners, with local and social enterprises, and with local schools and education institutions.

GRI 413: Local Communities

Objectives:

The Upper South Creek Project provides a significant opportunity to support jobs and skills for a more diverse and inclusive workforce and supply chain. The Project acknowledges that the key to success is taking a collaborative approach to delivering these priority areas.

The Project has a Diversity and Inclusion Management Plan (DIMP), which sets out how these commitments will be delivered whilst addressing key State and Federal policies and skills challenges.

Targets under this material issue are tracked through the following:

- Progress is tracked by the John Holland People team using the Project personnel tracking software 3D Safety. This data is collated, reviewed and managed by the John Holland People team.

Target	Detail	Progress
Diversity and Inclusion (D&I) Program and Action Plan developed and implemented.	The Project Diversity and Inclusion Management Plan has been developed and implemented.	
D&I employment targets and actions are created to increase attraction and retention to support underrepresented groups	SMART targets have been developed, including targets relating to employment and recruitment, training and induction, sectional representation amongst Project personnel, and procurement targets.	
Senior leadership team to support in monitoring the action plan progress and performance.	The Senior Leadership Team (SLT) has been assigned relevant direct and supporting roles and responsibilities in relation to D&I targets.	
Raise awareness of at least five D&I days of significance.	■ NAIDOC Week ■ National Reconciliation Week with guest speaker Paul Sinclair from Mirri Mirri ■ International Day of People with Disability (IDPwD) ■ Wear it Purple Day ■ Harmony Week ■ IDAHOBIT ■ Refugee Week ■ National Careers Week.	
D&I Training is made mandatory for all supervisors and leadership roles.	Ongoing and on track for relevant Project personnel.	
Employees are surveyed annually on their experiences of workplace D&I, with at least 60% employee participation rate, and improvement actions implemented.	2023 and 2024 surveys have been undertaken, with over 60% participation achieved for each. Feedback has been examined, evaluated, and relevant actions have been implemented for improvement.	
Targets for defined diverse groups have been identified and are reported publicly on an annual basis.	This report is considered to fulfill this requirement. Progress on each SMART target is outlined in Appendix B.	
Targeted employment programs including mentoring are developed implemented.	Employment processes and procedures and mentoring programs have been successfully rolled out on the Project and feedback has been requested from each participant.	
D&I objectives and targets are embedded in performance agreements for senior management team.	Roles and responsibilities have been defined for the Project personnel, including the SLT, the People Manager, and the Workforce Development Manager.	
D&I requirements are embedded in major supplier and subcontractor contractual agreements	Diversity and inclusion (D&I) requirements have been included in all major supplier and subcontractor contracts (Section 4.7). Those awarded work will make their best efforts to support the Project's D&I targets and will be required to report on progress monthly.	
Additional diversity data has been gathered to guide the D&I Program.	The Project collects at least one diversity metric, specifically the employment of women in construction, to inform the development and evaluation of the D&I Program.	
Diversity and Inclusion (D&I) Program and Action Plan developed and implemented.	The Project Diversity and Inclusion Management Plan has been developed and implemented.	

Over the year, the Project has undertaken several programs and initiatives relating to Diversity and Inclusion, particularly relating to social procurement and employment, skills development, Aboriginal and First Nations engagement. Key outcomes from these initiatives are:

- **Economic empowerment:** Aboriginal participation and engagement contributes to economic opportunities and reduces socio-economic disparities.
- **Cultural preservation:** Involving Aboriginal businesses and individuals helps preserve and celebrate Aboriginal culture and traditions.
- **Social inclusion:** Engaging First Nation businesses and individuals fosters diversity and inclusivity in the workforce.
- **Skills development and capacity building:** Aboriginal participation has provided opportunities for skills development and capacity building within Dharug communities.
- **Stakeholder relationships:** Demonstrating commitment to Aboriginal participation has enhanced relationships with the Dharug community, and other stakeholders.

Tracking of these KPIs and the Project's Diversity and Inclusion SMART targets is provided in Appendix B. It is noted that the reporting periods are not identical due to differing reporting structures. As such, the Project's progress to date at the time of writing (September 2025) has been provided rather than in alignment with the reporting period (April 2024 to April 2025).

14.1 Diversity and Inclusion – Case Study

Initiative Name	Building Pathways for Youth – NSW School Infrastructure Program
Target	**T-10 (DIMP)** **Achieve a minimum representation of 8% age-inclusive learner workers (under 25) within the Project workforce during the design and construction phase of the Project. Ensure that this representation is maintained throughout the duration of the Project.**
Phase	Construction and Delivery
Status	Initiative complete
Initiative Summary	Collaboration with NSW Government's School Infrastructure Program
Initiative Detail	The Project has partnered with the NSW Government several times as part of the NSW School Infrastructure Program. This collaboration between the Project and the NSW Government demonstrates a shared commitment to supporting youth and providing pathways into the infrastructure industry. By offering these trainees the opportunity to be a part of the Project, we are investing in their professional growth and development. Not only does this benefit the trainees by enhancing their employability, but it also contributes to the overall success of the Project by bringing in fresh perspectives and talent. Through this partnership, the Project and the NSW Government are actively working together to create meaningful opportunities for young people, supporting their transition from education to meaningful employment in the infrastructure sector. This initiative highlights the Project's dedication to fostering talent, promoting youth engagement, and building a sustainable workforce for the future. The Project welcomed a total of five trainees as part of the Program. These year 12 school leavers chose to study Project Management at TAFE NSW as part of their two-year traineeship program. They spent eight months at the Upper South Creek Project, where they had the opportunity to gain practical experience and apply their newly acquired skills on a real infrastructure project.
Outcome Focus	■ Increased diversity and inclusion in the infrastructure industry. ■ Providing pathways into the industry for young individuals. ■ Supporting the transition from education to meaningful employment. ■ Fostering talent and promoting youth engagement. ■ Building a sustainable workforce for the future. ■ Bringing fresh perspectives and talent to the Project.

A program participant (pictured below) undertaking Project Management at TAFE completed their final rotation at Upper South Creek in the quality team and as a result of their exposure to the Project decided to pursue a degree in Civil Engineering at Western Sydney University. He was subsequently offered an ongoing internship in the Project's civil engineering team. It is notable that when the trainee began their traineeship, they had no initial interest in attending university.

The trainee's journey highlights the positive impact of hands-on experience and mentorship in shaping career paths and sparking interest in specific fields. Their experience with the Upper South Creek Project not only provided them with practical skills but also ignited a passion for Civil Engineering. Following on from this program, the trainee received the Workplace Excellence Award from Apprenticeship Careers Australia.

14.2
Diversity and Inclusion – Case Study

Initiative Name	Success with Diverse Approaches
Target	**T-4 (DIMP)** **The project must implement at least three (3) targeted employment programs/ initiatives to support the diverse groups into employment within 3 years of Project commencement.** **T-15 (DIMP)** **Establish a partnership with at least one employment service provider that specialises in supporting long-term unemployed individuals and jobseekers with disabilities. The partnership will involve referring suitable candidates for available job positions within the Project workforce. Additionally, aim to employ at least one employee from this employment service.**
Phase	Construction and Delivery
Status	Initiative complete
Initiative Detail	A project trainee, who identifies as a person with a disability and comes from a culturally and linguistically diverse (CALD) background, has successfully completed the Certificate IV in Marketing and Communications at TAFE NSW ahead of schedule, thanks to support from the Project. Their hard work and commitment enabled them to finish the program early, showcasing exceptional motivation and determination. The trainee was employed through Settlement Services International, a social enterprise that supports individuals from diverse backgrounds, particularly those in the CALD community. This achievement highlights their dedication to personal growth, as well as the valuable support they received from their managers. They have been working on the Project since October 2023, and we are proud of their accomplishments in obtaining a permanent full-time position on John Holland's Belmont Desalination Project.
Outcome Focus	■ Provided a career advancement opportunity for the Communication and Stakeholder trainee. ■ Demonstrated the value of investing in training and development programs for employees. ■ Contributed to the individual's professional growth and skill development. ■ Promoted job stability and security through the transition into a permanent full-time position. ■ Enhanced the employee's job prospects and future career opportunities.

Communication and Marketing Trainee with Upper South Creek Senior Leadership.

15 Industry Recognition

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Global Industry Recognition

The Upper South Creek Advanced Water Recycling Centre (AWRC) and Pipelines Project continues to exemplify excellence in sustainability, innovation, and collaboration. This commitment has been further validated by the recognition received at prestigious industry awards, highlighting the ground-breaking work undertaken by John Holland on behalf of our client Sydney Water, and key supply chain collaborators. These initiatives reflect a shared drive to achieve circular economy outcomes of the highest level and abate carbon through the use of sustainable materials.

Recognition at the Asian Water Awards

Sydney Water received two awards at the 2025 Asian Water Awards for two innovative sustainability initiatives delivered as part of the Upper South Creek Project:

1. **Sustainable Water Infrastructure Award:**
   This award recognised the world-first recycled plastic fibre and bio-bitumen asphalt mixture developed for the Upper South Creek Project, an initiative designed and delivered by John Holland in collaboration with State Asphalt Services and SAMI Bitumen Technologies. The trial featured a world-first asphalt mix incorporating recycled coffee cups (PAKPAVE) and a biogenic-based binder (SAMIGreen). The innovative mix achieved a 25% reduction in carbon emissions compared to conventional Stone Mastic Asphalt (SMA10) and demonstrated superior durability, reduced ageing, and improved slip resistance. This initiative exemplifies the Project's commitment to reducing waste, promoting circular economy principles, and lowering the carbon footprint of construction materials.

2. **Environmental Conservation Excellence Award:**
   This accolade was awarded for the Blended Recycled Glass-Sand Trial and subsequent work to transform the Sydney Water specification to allow for widespread use of the product. This initiative was delivered by John Holland and Sydney Water in partnership with Boral and Jonishan. The trial successfully demonstrated the use of a blended recycled glass-sand mix as a sustainable substitute for natural sand. By diverting glass waste from landfill and reducing reliance on virgin sand, the initiative achieved a 10% reduction in lifecycle carbon emissions. This work highlights the Project's leadership in advancing circular economy outcomes and reducing environmental degradation through innovative material use.

These awards underscore Sydney Water's leadership in sustainability and innovation, as well as the collaborative efforts of all partners involved in delivering these groundbreaking initiatives.

Sydney Water's Senior Commercial Contracts Manager accepts Project of the Year Award at the RICS Australia Awards.

Recognition at the Australian Flexible Pavement (AfPA) Industry Awards

State Asphalt Services, in collaboration with SAMI Bitumen Technologies and John Holland, was recognised with the Outstanding Project Under $10 Million Award at the 2025 AfPA Industry Awards. This award also celebrates the successful delivery of the sustainable asphalt trial at the Upper South Creek AWRC.

This accolade reflects the collaborative efforts of Sydney Water, John Holland, and our supply chain partners in pushing the boundaries of sustainable infrastructure delivery. The recognition reinforces the importance of innovation, partnership, and a shared commitment to achieving outstanding environmental, social, and economic outcomes.

As we continue to deliver the Upper South Creek Project, these awards serve as a testament to the impact of our collective efforts and inspire us to further embed sustainability and innovation into every aspect of our work.

16
GRI Content Index

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Below is the list of GRI disclosures by the project included in the report.

Environmental Disclosures

GRI 301: Materials 2016

301-1 Materials used by weight or volume — 6

Material Type	Material	Unit	Quantity (FY24)	Quantity (FY25)
Non-renewable	Concrete	m3	13.330	18,613
	Steel	Tonnes	3,850	1,879
	Aggregate	Tonnes	136,160	4,255
	Pipe	Tonnes	29,130	3,179
	Asphalt	Tonnes	2,350	7,300

301-2 Recycled input materials used — 6

Material	Unit	Recycled Quantity	% Recycled	Recycled Quantity	% Recycled
		FY24		FY25	
Concrete	m3	6,864.95	51.5%	9,469	51%
Steel	T	2,418.01	62.8%	1,410	75%
Aggregate	T	80,334.4	59.0%	1,880	44%
Asphalt	T	517	22.0%	923	29%

GRI 302: Energy 2016

302-1 Energy consumed within the organisation — Energy content factors are referenced from NGA Factors 2023, 2024.

	Energy Type	Resource Unit	Energy Unit	Total Consumption	Total Energy Consumption	Total Consumption	Total Energy Consumption
				FY24		FY25	
Non-Renewable	Diesel	kL	GJ	810.2	31,107.1	53,964	2,083,017
	Petrol	kL	GJ			4,540	180,233
	Electricity	kWh	GJ	4,607	14.6	-	-
Total Non-Renewable			**GJ**		**31,121.7**		**2,263,250**
Renewable	Purchased Renewable (Green Power)	kWh	GJ	115,755.4	416.7	262,636	945
	Biodiesel (B5)	kL	GJ	184.9	7,099.7	138,478	5,345,270
	Biodiesel (B20)	kL	GJ	13.2	487.4	27,169	1,048,708
	Ethanol Blends	kL	GJ			1,867	72,080
	On-site Generation (Solar)	kWHR	GJ			91,707	330
	HVO	kL	GJ			2	73
Total Renewable			**GJ**		**8,003.8**		**6,467,406**

302-4 Reduction of energy consumption — 7

GRI 303: Water and Effluents 2018

303-1 Interactions with water as a shared resource — 13

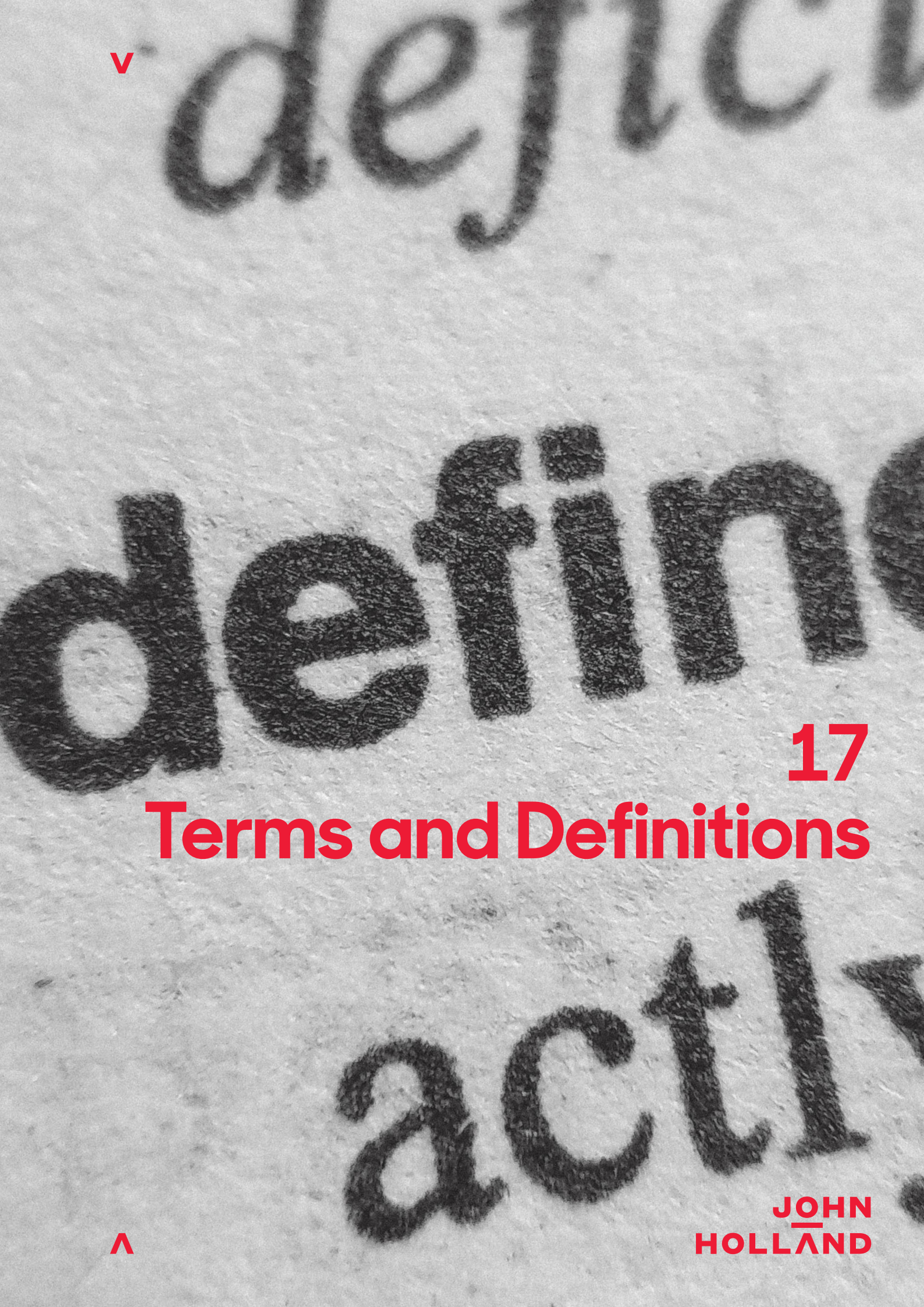
303-3 Water Withdrawal

Type of Water	Source of Water	Quantity Withdrawn (ML)	Quantity Withdrawn (ML)
		FY24	FY25
Non-potable	Rainwater	0.6	1
	Treated Effluent / Recycled Water		18
	Surface Water	13.1	6
Total Non-potable		**13.7**	**25**
Potable	Mains Water	24.3	68
Total Potable		**24.3**	**68**

<table>
<tr><td rowspan="4">GRI 304: Biodiversity 2016</td><td>304-1</td><td>Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity outside protected areas</td><td>8, 10 and 12</td><td></td></tr>
<tr><td>304-2</td><td>Significant impacts of activities, products, and services on biodiversity</td><td>8, 10 and 12</td><td></td></tr>
<tr><td>304-3</td><td>Habitats protected or resorted</td><td>8, 10 and 12</td><td></td></tr>
<tr><td>304-4</td><td>IUCN Red List species and national conservation list species with habitats in areas affected by operations</td><td>N/A</td><td></td></tr>
<tr><td rowspan="3">GRI 305: Emissions 2016</td><td>305-1</td><td>Direct (Scope 1) GHG emissions</td><td>Conversion Factors referenced from NGA Factors 2023 and 2024.</td><td>
<table>
<tr><th>Energy Type</th><th>Emissions Factor [TCO_2e/GJ]</th><th>Total Energy consumption</th><th>Scope 1 Emissions [TCO_2e]</th><th>Total Energy consumption</th><th>Scope 1 Emissions [TCO_2e]</th></tr>
<tr><td></td><td></td><td colspan="2">FY24</td><td colspan="2">FY25</td></tr>
<tr><td>Diesel</td><td>0.0699</td><td>31,107.1</td><td>2.186</td><td>2,083,017</td><td>145,603</td></tr>
<tr><td>Petrol</td><td>0.0736</td><td></td><td></td><td>180,233</td><td>12,148</td></tr>
<tr><td>Biodiesel (B5)</td><td>Biodiesel – 0
Diesel – 0.069</td><td>7,099.7</td><td>0.477</td><td>5,345,270</td><td>10,533</td></tr>
<tr><td>Biodiesel (B20)</td><td></td><td>487.4</td><td>0.029</td><td>1,048,708</td><td>1,740</td></tr>
<tr><td>Ethanol Blends</td><td></td><td></td><td></td><td>72,080</td><td>2,699</td></tr>
<tr><td>Hydrotreated Vegetable Oils (HVO)</td><td></td><td></td><td></td><td>73</td><td>0.14</td></tr>
</table>
</td></tr>
<tr><td>305-2</td><td>Energy indirect (Scope 2) GHG emissions</td><td>Conversion Factors referenced from NGA Factors 2023 and 2024.</td><td>
<table>
<tr><th>Energy Type</th><th>Emissions Factor[2] [TCO_2e/GJ] (NGA Factors 2023, 2024)</th><th>Total Energy consumption</th><th>Scope 2 Emissions [TCO_2e]</th><th>Total Energy consumption</th><th>Scope 2 Emissions [TCO_2e]</th></tr>
<tr><td></td><td></td><td colspan="2">FY24</td><td colspan="2">FY25</td></tr>
<tr><td>Electricity</td><td>0.00068</td><td>14.6</td><td>0</td><td>–</td><td>–</td></tr>
<tr><td>Purchased Renewable (Green Power)</td><td>0</td><td>416.7</td><td>0</td><td>262,636</td><td>0</td></tr>
<tr><td>Onsite Renewable</td><td>0</td><td></td><td></td><td>91,707</td><td>0</td></tr>
</table>
The project has purchased 100% Green Power, "Purchased Renewable," for the main site compound and 2 of the 3 Pipelines compounds. While the remaining Pipelines compound purchased 20% Green Power; works were complete at this compound for the reporting period.
Note: Green power is calculated with a 0 tonnes CO_2-e/GJ emissions factor as all associated emissions are offset by the energy provider.
</td></tr>
<tr><td>305-3</td><td>Other indirect (Scope 3) GHG emissions</td><td></td><td></td></tr>
<tr><td>GRI 306: Waste 2020</td><td>306-2</td><td>Waste by type and disposal method</td><td>6</td><td>
<table>
<tr><th>Waste Category</th><th>Recycled/ Reused (T)</th><th>Disposed at Licensed Landfill (T)</th><th>Total (T)</th><th>Recycled/ Reused (T)</th><th>Disposed at Licensed Landfill (T)</th><th>Total (T)</th></tr>
<tr><td>Clean/Inert Spoil</td><td>165,619.95</td><td>4,812.98</td><td>170,433</td><td>317,113</td><td>1,411</td><td>318,524</td></tr>
<tr><td>Other Inert Waste</td><td>5,093.68</td><td>235.98</td><td>5,330</td><td>16,554</td><td>53</td><td>16,607</td></tr>
<tr><td>Office Waste</td><td>4.70</td><td>17.5</td><td>22</td><td>1,336</td><td>109</td><td>1,445</td></tr>
<tr><td>Liquid Waste</td><td>5,858.33</td><td></td><td>5,858</td><td>10,562</td><td>–</td><td>10,562</td></tr>
<tr><td>Contaminated Waste</td><td></td><td>113.32</td><td>113</td><td>8,290</td><td>553</td><td>8,823</td></tr>
</table>
</td></tr>
</table>

GRI Standard	GRI Disclosure Number	Disclosure Title	Section	Detail
General Disclosures				
GRI 2: General Disclosures 2021	2-1	Organisational details	4.1	
	2-2	Entities included in the organisation's sustainability reporting	4.1	
	2-3	Reporting period, frequency and contact point	4.1	
	2-5	External Assurance	15	
	2-6	Activities, value chain and other business relationships	4.3.5 and 5.8	
	2-9	Governance structure and composition	4.2	
	2-12	Role of the highest governance body in overseeing the management of impacts	4.2	
	2-22	Statement on sustainable development strategy	4.4	
	2-23	Policy Commitments	4.4	
	2-24	Embedding policy commitments	4.4	
	2-25	Processes to remediate negative impacts	4.3	
	2-26	Mechanisms for seeking advice and raising concerns	4.3	
	2-28	Membership associations	4.3.6	
	2-29	Approach to stakeholder engagement	4.3	
Material Issues				
GRI 3: Material Topics 2021	3-1	Process to determine material topics	4.3 and 4.4	
	3-2	List of Material Topics	4.4 & Appendix A	
Economic Disclosures				
GRI 201: Economic Performance 2016	201-2	Financial implications and other risks and opportunities due to climate change	11	
GRI 203: Indirect Economic Impacts 2016	203-2	Significant indirect economic impacts	11	

Community Engagement				
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	4.3 10, 10.1 12, 12.1	Details of operations with implemented local community engagement, impact assessments: **Environmental Impact Assessments** Information about Project impacts and mitigation measures has been made publicly available on the Project page of the Sydney Water website. The Project also published an environmental mitigation measures document, and surveyed the community to request feedback on these measures for the second time in November 2024. Public disclosure of results of environmental and social impact assessments Noise and vibration data, vibration modelling maps, construction noise and vibration impact statements are located on the Project page of the Sydney Water website. **Stakeholder engagement plans based on stakeholder mapping** The CSEP is reviewed annually. The plan includes a comprehensive analysis of the community and stakeholders for both the Pipelines and AWRC, including social and demographic data, and engagement strategies for key stakeholder groups and issues. **Formal local grievance processes** A formal complaints process has been developed and can be accessed at the top of the Project's website:



17
Terms and Definitions

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Term	Definition
AWRC	Advanced Water Recycling Centre
CALD	Culturally and Linguistically Diverse
CSEP	Community and Stakeholder Engagement Plan
D&C	Design and Construction
D&I	Diversity and Inclusion
ECC	Engineering and Construction Contract
EIS	Environmental Impact Statement
EPBC	Environmental Protection and Biodiversity Conservation Act
GBCA	Green Building Council of Australia
GHG	Greenhouse gases
GRI	Global Reporting Initiative
HVO	Hydrotreated Vegetable Oil
IAP	International Association for Public Participation
IS	Infrastructure Sustainability
ISC	Infrastructure Sustainability Council
JHG	John Holland Group
MECLA	Materials and Embodied Carbon Leaders' Alliance
NAWIC	National Association of Women in Construction
O&M	Operations and Maintenance
PV	Photovoltaic
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
UN SDG	United Nations Sustainable Development Goals

Appendix A: Upper South Creek Sustainability Targets

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Phase	Primary Theme	ID#	"SMART" Target	UN SDG
Project-wide	Governance	T-1	Achieve an ISC rating of 'Gold' under TM v2.1.	All.
		T-2	Achieve 5 innovation points under ISC.	9. Industry, innovation and infrastructure.
Design phase	Energy and Carbon	T-3	30% reduction in energy use/demand from Base Case scenario.	7. Affordable and clean energy. 11. Sustainable cities and communities.
		T-4	50% increase in operational electricity sourced from renewables from Base Case scenario.	7. Affordable and clean energy. 11. Sustainable cities and communities.
	Water Use Management	T-5	25% reduction in water demand from Base Case scenario.	6. Clean water and sanitation. 11. Sustainable cities and communities. 12. Responsible consumption and production.
		T-6	25% reduction in total potable water from Base Case scenario.	6. Clean water and sanitation. 11. Sustainable cities and communities. 12. Responsible consumption and production.
	Circular Economy	T-7	45% reduction in material life cycle impacts from a Base Case scenario.	9. Industry, innovation and infrastructure. 11. Sustainable cities and communities. 12. Responsible consumption and production.
		T-8	30% of products / materials (by cost) will have an ISC-approved sustainability label.	9. Industry, innovation and infrastructure. 11. Sustainable cities and communities. 12. Responsible consumption and production.
		T-9	100% re-use of biosolids.	9. Industry, innovation and infrastructure. 12. Responsible consumption and production.
		T-10	50% of materials (by cost) can be easily adapted, re-used or recycled at end-of-life.	9. Industry, innovation and infrastructure. 11. Sustainable cities and communities. 12. Responsible consumption and production.
		T-11	≥ 250 tonnes of pipe bedding sand made from a blend of natural sand and crushed glass collected from curb side waste collection schemes will be used in the Project permanent works.	9. Industry, innovation and infrastructure. 11. Sustainable cities and communities. 12. Responsible consumption and production.
		T-12	≥ 2000 white feather honey myrtle seeds will be collected from site, germinated and returned to Project site as tube stock for use in permanent landscaping works to use in the regeneration of the Project riparian corridor.	9. Industry, innovation and infrastructure. 11. Sustainable cities and communities. 12. Responsible consumption and production. 15. Life on land.
		T-13	The Project will target 5% recycled material and/or recycled asphalt pavement use in the asphalt production for permanent works at the plant site.	9. Industry, innovation and infrastructure. 11. Sustainable cities and communities. 12. Responsible consumption and production.
	Society and Community	T-14	No greater than 1 horizontal lux level (over the project boundary).	11. Sustainable cities and communities .
		T-15	No greater than 1% upward light ratio.	11. Sustainable cities and communities.
		T-16	Achieve Level 2 for Urban Design and Landscaping (Pla-2 under ISC v2.1).	11. Sustainable cities and communities.
	Natural and Heritage Assets/ Society and Community	T-17	Identify, maintain, and enhance Aboriginal and non-Aboriginal heritage assets and values within the Project's urban and landscape design by integrating requirements into design documentation by 2026.	11. Sustainable cities and communities.
		T-18	Develop and implement the USC Project Rehabilitation Management Plan.	14. Life below water. 15. Life on land.
		T-19	Develop and implement 100% of the urban design landscape themes/recommendations within the Stage 1a Operational Space Urban Design Landscape Plan.	11. Sustainable cities and communities.

	Natural and Heritage Assets/ Society and Community	T-20	The Project will regenerate and landscape the riparian area adjacent Wianamatta-South Creek, including the reconnection of an on-site billabong to support Western Sydney's green spine development before the operational commencement of the plant.	11. Sustainable cities and communities. 14. Life below water. 15. Life on land. 13. Climate action.
	Resilience	T-21	Reduce 100% of extreme and high-priority direct climate and natural hazard risks to an acceptable risk level.	13. Climate action.
	Environmental Health – Water	T-22	The Project will achieve load and concentration limits within Yarramundi 2 subzone and maintain or improve instream water quality and macroinvertebrate diversity attributable to the project's operational waterway releases. These will be achieved by meeting the project-specific water quality objectives (see table 8-8 of USC EIS, September 2021).	14. Life below water.
	Environmental Health – Noise	T-23	Operational noise is within the Project Specific Noise Trigger Levels of 41 dBL at night and 45 dBL day/evening at existing/future residential receivers.	11. Sustainable cities and communities.
	Environmental Health – Air quality	T-24	Air quality does not exceed 4 odour units (OU) beyond the boundary of the plant (operational site).	11. Sustainable cities and communities.
Construction phase	Energy and Carbon	T-25	30% reduction in energy use/demand (Scope 1 and 2) from Base Case scenario.	7. Affordable and clean energy. 11. Sustainable cities and communities.
		T-26	30% increase in electricity sourced from renewables.	7. Affordable and clean energy. 11. Sustainable cities and communities.
	Water Use Management	T-27	25% reduction in water demand from Base Case scenario.	6. Clean water and sanitation. 11. Sustainable cities and communities.
		T-28	20% reduction in potable water use from Base Case scenario.	6. Clean water and sanitation. 11. Sustainable cities and communities. 12. Responsible consumption and production.
	Circular Economy	T-29	95% diversion of clean/inert excavation spoil from entering landfill.	9. Industry, innovation and infrastructure 11. Sustainable cities and communities 12. Responsible consumption and production
		T-30	70% diversion of office waste from entering landfill.	9. Industry, innovation and infrastructure 11. Sustainable cities and communities 12. Responsible consumption and production
		T-31	80% diversion of other inert resource outputs from entering landfill.	9. Industry, innovation and infrastructure 11. Sustainable cities and communities 12. Responsible consumption and production
		T-32	The Project will utilise ≥ 300 tonnes of salvaged and collected woody debris (logs and root balls) in the Project's riparian corridor rehabilitation and revegetation works.	11. Sustainable cities and communities 12. Responsible consumption and production
		T-33	≥ 20 tonnes of sustainable asphalt made from recycled coffee cups and using a bio-bitumen (polymer-modified binder containing biogenic materials) binder will be trialled on-site as part of temporary works during construction to evidence the use/ viability and incorporation of problem waste streams in construction materials.	9. Industry, innovation and infrastructure 11. Sustainable cities and communities 12. Responsible consumption and production
	Natural and Heritage Assets	T-34	Number of significant heritage-related incidents per million hours worked is 0.	11. Sustainable cities and communities.
	Environmental Health – Water	T-35	Number of significant water and discharge related incidents per million hours worked is 0.	14. Life below water. 15. Life on land.
	Environmental Health – Noise	T-36	Number of significant of noise-related incidents per million hours worked is 0.	11. Sustainable cities and communities.
	Environmental Health – Vibration	T-37	Number of significant vibration-related incidents per million hours worked is 0.	11. Sustainable cities and communities.
	Environmental Health – Biodiversity	T-38	Number of significant fauna / flora incidents per million hours worked is 0.	15. Life on land.
	Society and Community	T-39	Community and Stakeholder Engagement Plan (CSEP) inspections are conducted monthly.	11. Sustainable cities and communities.
		T-40	Avoidable complaints of less than 12 per calendar year for AWRC and less than 24 per calendar year for Pipelines.	11. Sustainable cities and communities.

Appendix B: Diversity and Inclusion Targets and Progress, including Social and Sustainable Procurement and Employment

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The Projects has defined SMART targets (Specific, Measurable, Achievable, Realistic, and Timely) relating to Diversity and Inclusion for achievement through Project construction and delivery, in line with IS Rating's v2.1 Workforce-3 (Wfs-3) credit. These are listed in Table 2 below.

"SMART" Targets	Summary of Key Actions (beyond reporting)	Action Progress	Progress
Ensure that 100% of employees are issued with mandatory D&I Awareness and Aboriginal Cultural Heritage Awareness training. All employees must undertake the training and complete it within three months of assignment.	Personnel in leadership role are provided with D&I awareness training at least every 2 years. 100% completion rate for all employees through onboarding and monthly tracking by project People team.	Actions completed; no further actions required. D&I Training has been implemented into the project's competency management system.	Target On-track: 100% employees completed training.
Conduct an annual employee survey to collect data on diversity and inclusion, as well as employee workplace culture (feeling of safety). Ensure that the survey is issued to 100% of all employees and aim for a participation rate of over 60%.	Develop, promote, and organise an annual employee survey. Present survey results and improvement actions to SLT for endorsement. Share results with all personnel, including areas for improvement and actions to rectify.	Actions completed; no further actions required.	Target On-track: Survey issued to 100% of employees, with a 63% participation rate in this reporting period. D&I performance for 2024 was at 92% and workplace culture, 86%, exemplifying a diverse and strong workplace culture.
100% of the workforce on the Project has access to the Diversity & Inclusion Policy during their recruitment, onboarding, and throughout their entire tenure.	Raise awareness for D&I policy, JH Code of Conduct, and associated procedures. Increase Awareness of Support Channels for Diversity & Inclusion Concerns and Opinions (such as JH Whistleblower Policy and Speak Up Line).	Policies and procedures have been promoted at days of Significance celebrations and made available to all employees. Increasing awareness for D&I support channels is a new item.	Target On-track: Made available to all staff electronically and on Noticeboards.
The project must implement at least three (3) targeted employment programs/ initiatives to support the diverse groups into employment within 3 years of Project commencement.	Ensure recruitment strategies and career progression opportunities are inclusive for all personnel and candidates regardless of background, gender, age, sexual orientation, etc. Implement and promote mentoring programs that are culturally appropriate and freely available to all employees who identify as being from a defined diversity group.	Area of Improvement: Enhance engagement with the mentoring programs amongst members belonging to diverse groups Actions are completed or ongoing. Job advertisements are published through several services, including refugee, First Nation, and disability services. The Group Workforce Mentoring Program was developed and made available to all project personnel and sub-contractors, with specific mentoring programs run through groups such as Barranggira and NAWIC (Mentoring for Women in Construction).	Target On-track
Employ a minimum of 3% Aboriginal (First Nation) employees as part of the Project workforce over the duration of the Project. (#DG1)	Celebrate two days of significance for First Nation groups.	Action is ongoing, recurring annually.	Target On-track: Currently 3.23% Aboriginal employee participation across the workforce. National Reconciliation Week (NRW) & NAIDOC week both celebrated on the Project during this reporting period.

Ensure a minimum representation of 5% women in underrepresented roles as part of the Project workforce over the duration of the Project. (#DG4)	Women-specific mentoring. Celebrate International Women's Day. Provide free sanitary items for women on site. Implementing 2 annual initiatives promoting career and/or employment for women in construction.	All actions are completed or ongoing, recurring annually.	Target On-track: Currently 5.36% women representation in underrepresented roles.
Achieve a minimum representation of 10% culturally and linguistically diverse individuals as part of the Project workforce over the duration of the Project (#DG8)	Organise and celebrate Harmony Day on the Project.	Action is ongoing, recurring annually.	Target On-track: Currently 11.83% representation of CALD employees.
Implement two initiatives to support carers at work (#DG6)	Raise awareness for carers and their responsibilities by acknowledging National Carers Week.	Action is ongoing, recurring annually.	Target On-track.
Promote information about two key days of significance related to LGBTQI+ awareness and inclusion within the Project. Ensure that the information is widely distributed and accessible to all employees. (#DG7)	Raise awareness and support IDAHOBIT Day and Wear it Purple Day.	Action is ongoing, recurring annually.	Target On-track: Project promoted two key days of significance and supported awareness campaigns.
Achieve a minimum representation of 8% age-inclusive learner workers (under 25) within the Project workforce during the design and construction phase of the Project. Ensure that this representation is maintained throughout the duration of the Project. (#DG9)	Develop and implement initiatives to support workers under the age of 25.	Key outcomes: Students from Anglican College High in Rouse Hill were provided with work experience opportunities on the project. Five trainees from the 'School Infrastructure Program' have been engaged by the project. Eleven interns of various all ages have been engaged on the Project, in varying capacities and programs.	Target On-track: Currently 14.6% representation of employees under 25 age group.
Implement two initiatives to support refugees in gaining sustainable employment as part of the Project workforce. (#DG5)	Support a community organisation that provides employment assistance to refugees. Promote awareness about Refugees Week. Support job-readiness programs for refuges (inc. CALD community members).	All actions are ongoing and recurring annually, in continuing partnership with organisations such as SydWest Community Settlement Services, Settlement Services International (SSI), Career Services Australia, and CareerSeekers. These collaborations support employment assistance, job-readiness programs, and awareness initiatives for refugees and CALD community members, ensuring sustained impact year after year.	Target On-track: Project implemented 2x initiatives to support refugees in gaining employment.
Achieve a minimum of 3% addressable spend on Plant that can be reasonably directed to Aboriginal people and/or businesses within the design and construction phase of the Project. (#DG1)	Identify and engage the Aboriginal owned businesses that are listed on Supply Nation.	Actions are on-track and ongoing.	Target On-track: As of September 2024, 6.66% of the Project's addressable spend has been directed to 28 Supply Nation registered businesses.

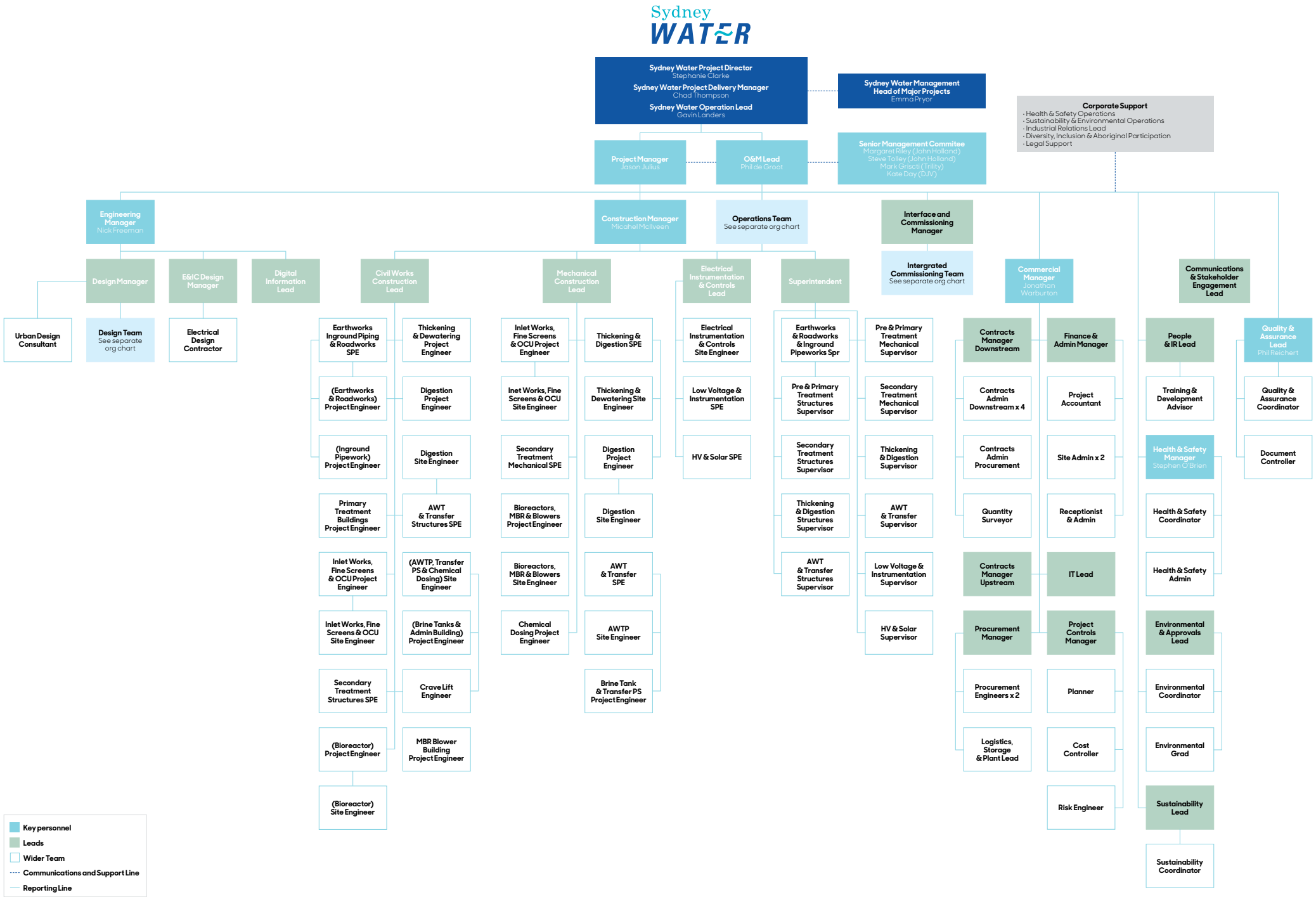
Achieve a minimum of 3% addressable spend on Plant that can be reasonably directed to Aboriginal people and/or businesses within the design and construction phase of the Project. (#DG1)	Identify and engage the Aboriginal owned businesses that are listed on Supply Nation.	Actions are on-track and ongoing.	Target On-track: As of September 2024, 6.66% of the Project's addressable spend has been directed to 28 Supply Nation registered businesses.
Employ a minimum of 1 Long-term unemployed employee during the life of the project (#DG2)	Participate in training and employment events. Provide training and support for long-term unemployed individuals.	Project continues to support training and employment events. Project co-delivered Job Ready Civil Construction program in collaboration with SydWest and TAFENSW.	Target Complete: Employed 4x employees and engaged 4x interns.
Achieve a minimum representation of 5% employees in the over 55 age group. (#DG9)	Inclusive language in job descriptions and advertisements.	Actions are on-track and ongoing, job advertisements including relevant information.	Target On-track: Currently has 5.78% representation of over 55 age group
Establish a partnership with at least one employment service provider that specialises in supporting long-term unemployed individuals and jobseekers with disabilities. The partnership will involve referring suitable candidates for available job positions within the Project workforce. Additionally, aim to employ at least one employee from this employment service. (#DG2 & #DG3)	Employ minimum one long-term unemployed and/or person with a disability from the program Provide workplace adjustments for people with disability	Actions are complete: Engaged one employed with disability through SSI. Workplace adjustments made in consultation with a Rehabilitation consultant and the Safety, People, and D&I teams.	Target Complete
Deliver a minimum of two educational activities each year at schools located within the Project pipeline alignment and within a 30km radius of the Advanced Water Recycling Centre. Prioritise schools with a high demographic of First Nation and CALD students to educate them about the possibilities and variety of roles in construction. (#DG1,8,9)	Partner with local schools to deliver the activities. Organise interactive workshops and discussion panels relating to careers in construction. Arrange visits to construction sites associated with the Project.	Actions On-track: The Project established a working group with Bonnyrigg and Cecil Hills High Schools to provide excursions to site, engagement with STEM activities, and facilitation of career conversations. This initiative is ongoing.	Target On-track
Organise and conduct a minimum of two on-site excursions over the duration of the Project, specifically designed to showcase the wide range of roles available for women in the construction industry. Additionally, provide opportunities for women STEM students to gain hands-on experience and exposure to the construction industry through placements on the Project. (#DG4)	Actions are as per the target above	Actions On-Track: Project engaged 1x female intern from STEM fields-Civil Engineering through Career Services Australia, who transitioned into a role as a Site Engineer. Project engaged 1x Trainee from NSW Infrastructure Traineeship Program in Construction Civil Team to provide exposure to the construction industry.	Target On-track

By facilitating and fostering ongoing collaborative relationships with suppliers, sub-contractors, and the wider supply chain, we have progressed our social spending. Progress against our targets is outlined in Table 2 below:

Diversity Metric	Target	April 2025
% of Aboriginal employees	3%	2.56%
% Aboriginal Participation Spend (%)* Plant	3%	9.17%
$ Aboriginal Participation Spend ($)* Plant	$4,109,924.74	$12,566,070
$ Aboriginal Participation Spend ($)* - Pipeline	–	$1,189,878
% of Employees with disability	3%	0.24%
% of Under 25 employees	8%	12.05%
% of Culturally and linguistically diverse workers	10%	13.27%
% of women in the workforce	40%	8.04%
% of women in leadership	30%	36.36%
% of women in STEM positions	15%	26.53%
**Programs and strategies in place to encourage local and participation and engagement, traineeships, and mentor programs within local areas.	>10	81%

Appendix C: Project Organisation Chart

JOHN HOLLAND


Sydney WATER
Sydney Water Project Director
Stephanie Clarke
Sydney Water Project Delivery Manager
Chad Thompson
Sydney Water Operation Lead
Gavin Landers
Sydney Water Management Head of Major Projects
Emma Pryor
Corporate Support
· Health & Safety Operations
· Sustainability & Environmental Operations
· Industrial Relations Lead
· Diversity, Inclusion & Aboriginal Participation
· Legal Support
Project Manager
Jason Julius
O&M Lead
Phil de Groot
Senior Management Commitee
Margaret Riley (John Holland)
Steve Tolley (John Holland)
Mark Griscti (Trility)
Kate Day (DJV)
Engineering Manager
Nick Freeman
Construction Manager
Michael McIlveen
Operations Team
See separate org chart
Interface and Commissioning Manager
Design Manager
E&IC Design Manager
Digital Information Lead
Civil Works Construction Lead
Mechanical Construction Lead
Electrical Instrumentation & Controls Lead
Superintendent
Intergrated Commissioning Team
See separate org chart
Commercial Manager
Jonathan Warburton
Communications & Stakeholder Engagement Lead
Urban Design Consultant
Design Team
See separate org chart
Electrical Design Contractor
Earthworks Inground Piping & Roadworks SPE
(Earthworks & Roadworks) Project Engineer
(Inground Pipework) Project Engineer
Primary Treatment Buildings Project Engineer
Inlet Works, Fine Screens & OCU Project Engineer
Inlet Works, Fine Screens & OCU Site Engineer
Secondary Treatment Structures SPE
(Bioreactor) Project Engineer
(Bioreactor) Site Engineer
Thickening & Dewatering Project Engineer
Digestion Project Engineer
Digestion Site Engineer
AWT & Transfer Structures SPE
(AWTP, Transfer PS & Chemical Dosing) Site Engineer
(Brine Tanks & Admin Building) Project Engineer
Crave Lift Engineer
MBR Blower Building Project Engineer
Inlet Works, Fine Screens & OCU Project Engineer
Inet Works, Fine Screens & OCU Site Engineer
Secondary Treatment Mechanical SPE
Bioreactors, MBR & Blowers Project Engineer
Bioreactors, MBR & Blowers Site Engineer
Chemical Dosing Project Engineer
Thickening & Digestion SPE
Thickening & Dewatering Site Engineer
Digestion Project Engineer
Digestion Site Engineer
AWT & Transfer SPE
AWTP Site Engineer
Brine Tank & Transfer PS Project Engineer
Electrical Instrumentation & Controls Site Engineer
Low Voltage & Instrumentation SPE
HV & Solar SPE
Earthworks & Roadworks & Inground Pipeworks Spr
Pre & Primary Treatment Structures Supervisor
Secondary Treatment Structures Supervisor
Thickening & Digestion Structures Supervisor
AWT & Transfer Structures Supervisor
Pre & Primary Treatment Mechanical Supervisor
Secondary Treatment Mechanical Supervisor
Thickening & Digestion Supervisor
AWT & Transfer Supervisor
Low Voltage & Instrumentation Supervisor
HV & Solar Supervisor
Contracts Manager Downstream
Contracts Admin Downstream x 4
Contracts Admin Procurement
Quantity Surveyor
Contracts Manager Upstream
Procurement Manager
Procurement Engineers x 2
Logistics, Storage & Plant Lead
Finance & Admin Manager
Project Accountant
Site Admin x 2
Receptionist & Admin
IT Lead
Project Controls Manager
Planner
Cost Controller
Risk Engineer
People & IR Lead
Training & Development Advisor
Health & Safety Manager
Stephen O'Brien
Health & Safety Coordinator
Health & Safety Admin
Environmental & Approvals Lead
Environmental Coordinator
Environmental Grad
Sustainability Lead
Sustainability Coordinator
Quality & Assurance Lead
Phil Reichert
Quality & Assurance Coordinator
Document Controller
Key personnel
Leads
Wider Team
Communications and Support Line
Reporting Line