Belmont Desalination Plant

Sustainability Management Plan

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Rev	Date	Prepared by	Reviewed by	Approved by	Remarks
A	28/03/2024	V Masson	K Heikkinen	M Trinh	Early Works Phase 2
B	05/08/2024	N Cook	A Grant	S MacNish	Preliminary Project Plan
C	25/09/2024	N Cook	A Grant	S MacNish	Preliminary Project Plan
0	19/11/2024	N Cook	A Grant	S MacNish	Minor updates following HWC review – reissue at same revision
1	05/05/2025	A Cowin	B Slavin	N Cook	Six-month review
2	02/07/2025	A Cowin	B Slavin	N Cook	Updated version as per Six Monthly Review

Document control and amendment

The current reviewed and approved version of this Plan is available for all project personnel to access. Downloaded Plans are deemed uncontrolled, and it is the responsibility of the user to ensure they are using the latest revision. The responsibility for maintenance, review, update and approval of this Plan is as per the Document Management Plan. All changes to this document are noted.

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Submission and updating

Time for Submission	Period for Update	Update Interval
Post Contract Award	4 weeks	6 monthly

Revision record

Revision	Details
A	Early Works draft for HWC review
B	Revised draft incorporating previous review comments
C	Preliminary Project Plan, addressing further review comments
0	Project Plan
1	Plan updated to include Hunter Water Environment Policy and John Holland Risk Management Governance procedures and Policy, Objective and Target mapping and revised Reporting and Review processes.
2	Updated version as per Six Monthly Review

Definitions and abbreviations

Term	Definition
Aconex	The documents management system used by the project to centralise and record documentation
BU	Business Unit
CEMP	Construction Environmental Management Plan
Consultant	The Consultant who has been engaged to perform the design, preparation of detailed 'For Construction' documentation and necessary certification to meet contractual requirements.
CPTED	Crime Prevention Through Environmental Design
D&AB	Design & As-Built
DfD	Building design process that allows for the easy recovery of products, parts and materials when a building is disassembled or renovated
EIS	Environmental Impact Statement
EP&A	Environmental Planning & Assessment
EPD	Environmental Product Declaration
ESD	Ecological Sustainable Development
EU	European Union
HSC	Health and Safety Committee
Consultant	The Consultant who has been engaged by Hunter Water to perform the design, preparation of detailed 'For Construction' documentation and necessary certification to meet contractual requirements
GHG	Greenhouse Gas
GreenPower	Renewable energy from government accredited source
Hold Point (HP)	A point defined in a process beyond which an activity must not proceed without the approval of a designated authority.
Hunter Water	The party to whom John Holland is contracted for a Project. For this project Hunter Water is Hunter Water
HWGREP	Hunter Water Greenhouse and Energy Management Policy
IMS	Integrated Management System
ISAP	Infrastructure Sustainability Accredited Professional
IS	Infrastructure Sustainability
ISC	Infrastructure Sustainability Council
ISCA	Infrastructure Sustainability Council of Australia
ISP	Independent Sustainability Professional
Items	Used as a general term to refer to material, equipment, fabricated components, etc.
ITP	Inspection and Test Plan – defines the steps to be taken to check and verify an activity or product
ISv1.2	The IS Rating that applies to the Project's design and construction phases.
John Holland	John Holland Pty Ltd (JH) as the organisation responsible for the total performance of the works under the Contract.
JUB	Jack Up Barge
LHWSP	Lower Hunter Water Security Plan is a whole of government approach to ensuring our region has a resilient and sustainable water future.

Term	Definition
LMS	Learning Management System
MCA	Multi-criteria analysis
NGER	National Greenhouse and Energy Reporting
NSWGREP	NSW Government Resource Efficiency Policy
Plan	A document setting out the specific practices, resources, activities and responsibilities relevant to a particular project or contract.
PGP	Performance Guarantee Period
PMS	Project Management System
PPW	Project Pack Web
SharePoint	Web based content management and knowledge management tool used to store and share project documentation.
SQERM	Safety, Quality, Environment Risk Management
SQP	Suitably Qualified Professional
Subcontractor	Any company, body or person who is contracted to John Holland for the purpose of supplying plant and/or services. Categories such as manufacturer, fabricator and supplier are considered Subcontractors.
SME	Subject Matter Expert
SMS	Sustainability Management System
SLT	Senior Leadership Team
SuID	Sustainability in Design
SuMP	Sustainability Management Plan (This Plan)
Sustainability Reporting	Sustainability reporting relates to the public disclosure of, both qualitative and quantitative information concerning environmental, social, economic and governance performance.
TBM	Tunnel Boring Machine
UNSDG	The United Nations Sustainable Development Goals (UNSDGs) are a universal set of goals, targets and indicators that UN member states will be expected to use to frame their agendas and political policies to 2030. The SDGs highlight the connections between the environmental, social and economic aspects of sustainable development. Sustainability is at the centre of the SDGs.
WER	Workplace Environmental Representative
Witness Point (WP)	A point in a construction or verification process at which an activity is to be observed.
WSR	Workplace Sustainability Representative
WWTW	Waste Water Treatment Works

Compliance with Conditions of Approval & Mitigation Measures

Requirement to be addressed	Reference in this document or sub plan
C8. Ecological Sustainable Development Prior to the commencement of construction, unless otherwise agreed by the Planning Secretary, the Proponent must demonstrate that ESD is being achieved by either: (a) registering for a minimum rating with the Infrastructure Sustainability Council of Australia's (ISCA) Infrastructure Sustainability (IS) rating scheme and submit evidence of registration to the Planning Secretary; or (b) seeking approval from the Planning Secretary for an alternative certification process.	This Plan
Mitigation Measures	
Management systems and procurement and purchasing	Section 3, 4 and 5
Energy and carbon	Section 4.1.2
Water	Section 4.1.2
Materials	Section 5.6
Discharges to air, land and water	Section 6
Land	Sub Plan - CS1135-WT-BEL-EN-PLN-0017
Waste	Sub Plan - CS1135-WT-BEL-EN-PLN-0022
Community health, wellbeing and safety	Section 5.2

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1 Introduction

1.1 Rating Scheme

During the project planning and approval, the Infrastructure Sustainability Council (ISC) rating tool was selected as the appropriate assessment tool to demonstrate the extent to which the Project is consistent with the principles of ecologically sustainable development (ESD).

ISC is a member-based industry association committed to the delivery of more sustainable outcomes from the design, construction and operation of infrastructure.

The Infrastructure Sustainability (IS) Rating Scheme is developed and administered by the ISC. The IS Rating Scheme is a comprehensive rating system for evaluating sustainability across planning, design, construction and operation of infrastructure.

The IS Rating Scheme is comprised of:

- The Infrastructure Sustainability (IS) rating tool, incorporating:
  - IS Technical Manual (available through Infrastructure Sustainability Accredited Professional [ISAP] training or registered projects/assets)
  - IS Scorecard
  - IS Materials Calculator

Table 1 below describes the IS Rating 1.2 Scheme sustainability themes and categories:

Table 1: IS Raing Scheme themes and categories

Themes	Categories
Management and Governance	▪ Management Systems ▪ Procurement and Purchasing ▪ Climate Change Adaptation
Using Resources	▪ Energy & Carbon ▪ Water ▪ Materials
Emissions, Pollution and Waste	▪ Discharges to Air, Land & Water ▪ Land ▪ Waste
Ecology	▪ Ecology
People and Place	▪ Community Health, Well-being and Safety ▪ Heritage ▪ Stakeholder Participation ▪ Urban & Landscape Design
Innovation	▪ Innovation

1.2 Purpose of the Management Plan

The purpose of this management plan is to facilitate the management and implementation of an IS 1.2 Design/As Built rating on the Belmont Desalination Plant.

The objectives of this management plan are to:

- Outline the approach to applying the IS Rating Scheme on Belmont Desalination Plant.
- Describe and facilitate planning towards key IS timing and milestone requirements on the project.
- Outline the ISCs role and specific support requirements for the duration of the rating process.
- Assign responsibility and key tasks associated with achieving the IS rating.

1.3 Rating Objectives

The objectives for pursuing an IS rating for the Project as stated in the Environmental Impact Statement are:

- Supporting strategies to improve Government efficiency in the use of water, energy and transport as per the NSW Government Resource Efficiency Policy 2019 (NSW GREP).
- Demonstrate that the project is consistent with the principles of ESD as defined in the Protection of the Environment Administration Act 1991 Environmental Planning & Assessment (EP&A) Regulation; and
- Promote efficiency of resource consumption, recognition of life-cycle costs and driving sustainability assessment and targets.

2 Project Description

The Belmont Desalination Plant is a key action of the Lower Hunter Water Security Plan (LHWSP) released by NSW Government in 2022. The LHWSP is a whole-of-government approach to ensuring the region has a resilient and sustainable water future that contributes to regional health and prosperity and is supported by the community.

Desalination is an important rainfall-independent water supply option and will help support Hunter Water customers and communities with a safe and reliable water source regardless of changes in weather or climate.

A desalination plant at Belmont will

- Add up to 30 million litres per day of rainfall-independent water supply to the Lower Hunter's water system, which is around 15% of the region's average daily water needs.
- Increase the diversity of the region's water supply system, which will improve the resilience of the overall system and help Hunter Water to continue to support customers and communities regardless of climate or system shocks.
- Help to reduce the rate that storages deplete in a long and severe drought by around six months, delaying the need to implement severe drought response measures.
- Provide a flexible water supply source that is responsive to water supply needs.

The Belmont Desalination Plant is to be constructed on a brownfield site (former sludge ponds) adjacent to the south of the existing Belmont Wastewater Treatment Works (WWTW). The desalination plant will provide potable water to the locality of Belmont and surrounding areas in the Lake Macquarie area, and the city of Newcastle, New South Wales.

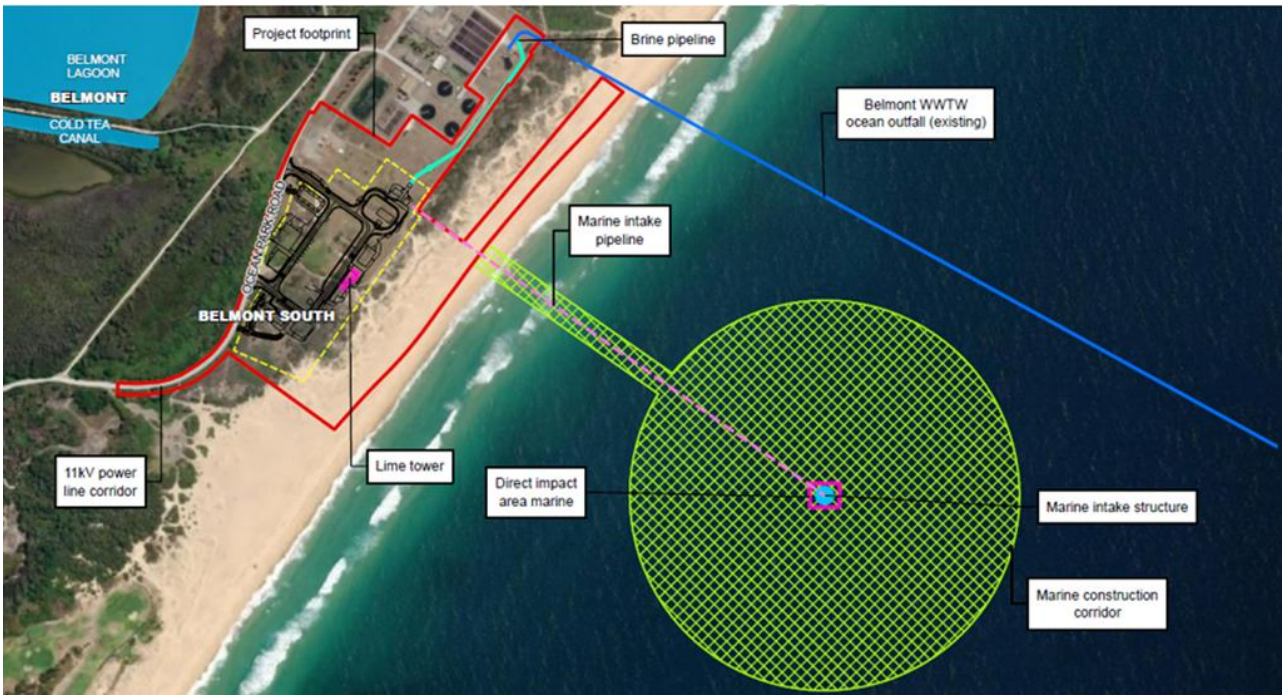


Figure 1: The approved Project footprint (from GHD, 2020).

2.1 Project Stages

An overview of project stages, timing, and status is provided below.

Table 2: Project stages

Project Phase		Status	Description
Phase 1	Phase1A Concept Design and separable portion 1D(a)	Completed	Scope definitions and detailed field investigations for a name plate 30ML/d capacity plant with an operational life of nominally 50 years, as stated in the Technical Specifications (August 2023). Contract suspended in May 2020.
	SP1D (b) Preliminary Design	Completed	Preliminary Design for a 30ML/d plant with an operational life of nominally 50 years as stated in the revised Technical Specifications.
Phase 2	EP2W Early Phase 2 Works	Completed	Early Phase 2 Works incorporates Hunter Water comments on the SP1D(b) design, vendor information and outcomes from targeted value engineering exercises. This work was use by JH to develop a revised TOC for detailed design and construction of the Desalination Plant with an operational life of nominally 50 years.
	SP2 Detailed Design, Construction, Commissioning and IS certification.	3.5 years	Detailed Design, construction, commissioning of the plant for a nameplate capacity 30ML/d plant with an operational life of nominally 50 years as stated in the Technical Specifications
PGP	Performance Guarantee Period	2 years	Operation and maintenance of the Desalination Plant by the Technology Provider (Osmoflo) and handover to Hunter Water (Dec 2029)

2.2 Project Milestones

In accordance with Part C of the Consolidated Approval SSI 8896, the Project shall undertake a sustainability rating under the Infrastructure Sustainability Council (ISC) infrastructure rating scheme. The Hunter Water Detailed Design & Construction General Specification further states that the contractor Project shall achieve a minimum Infrastructure Sustainability (IS) “Excellent” ‘Design’ and ‘As built’ rating.

The graphic below presents an indicative timeline for the key project milestones needed to achieve the overall verification of the IS rating.

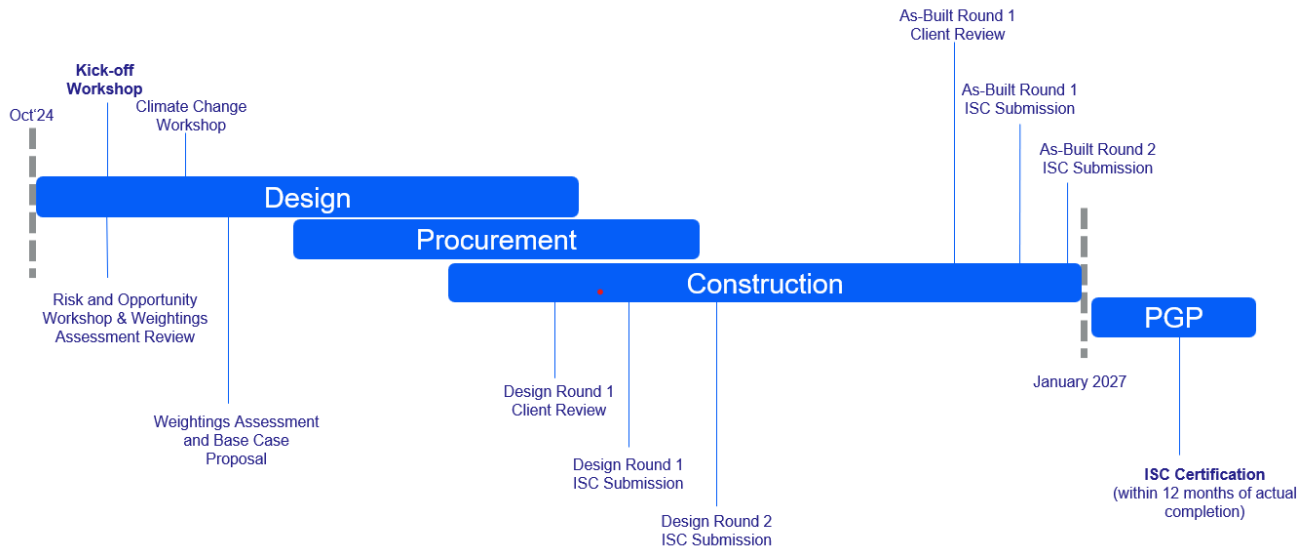


Figure 2 Project Key Sustainability Milestones

2.3 Rating Scope and Boundaries

The Belmont Desalination Plant is seeking a Design and As Built rating under the version 1.2 of the IS rating scheme.

John Holland is committed to ensuring that the Project aligns with the IS Rating Scheme. Table 3 provides an overview of the IS Rating Scheme as used on the Belmont Desalination Plant Project. The Project is using this scheme to support John Holland in exceeding our sustainability objectives and targets, delivering sustainable outcomes and complying with contractual requirements.

Target score and weightings assessment to be added in the next revision of the Sustainability Management Plan (SuMP) (this Plan).

Table 3: Rating Scheme

Rating Scheme	Overview
Infrastructure Sustainability (IS) Rating Scheme V1.2	The IS Rating Scheme has been developed by the ISC. The IS Rating Scheme evaluates sustainability initiatives and potential environmental, social, and economic impacts of infrastructure projects and assets. It is intended for use by stakeholders, including proponents, designers, construction, and operation-project team members, as a guide for sustainable design, procurement, construction and operation for infrastructure projects and assets.

2.3.1 Rating Scope

The approved project footprint is provided in Figure 1 above.

The IS Rating Scope includes several process and auxiliary buildings, internal plant roads, process and treated water tanks. The buildings are generally industrial type buildings with standard construction methods including concrete slabs, structural steel, tilt-up precast, masonry blockwork and aluminium roof cladding.

In undertaking this rating, the following is deemed to be within the IS Rating scope:

- Civil and structural construction works including buildings, water storage tanks and materials supply.
- Plant mechanical and electrical energy consumption including construction energy and fuel use.
- Waste management associated with construction and operation.
- Seawater intake system.
- Plant treatment process equipment including pre-treatment, seawater RO and posttreatment.
- Process and treated water storage tanks.
- A treated water pump station.
- Electrical infrastructure including transformers, switch rooms, controls, telemetry and instrumentation.
- Integration with existing Plant assets, including the water network, Belmont WWTW, telemetry, security and SCADA.
- Plant mechanical, electrical and instrumentation works including the provision of a site security system.
- Plant chemical systems.
- All roadways within the approved plant boundary, including construction and connection to existing roads.

It should be noted that identified sustainability opportunities for the project should not compromise the overall durability and life expectancy of the completed structures. Any sustainability initiatives raised during detailed design that potentially affect compliance with the project durability requirements will be evaluated by the Durability Consultant for acceptability prior to implementation.

2.3.2 Out of Scope for the IS Rating

The following are excluded from the IS Rating process:

- Temporary works materials (unless covered under Mat-1.04 IS ruling).
- Utilities (external)
- Temporary offshore structures and wharf facilities in the Port of Newcastle
- Northern and Southern Water Supply Pipeline upgrades.
- High Voltage Power upgrades

2.3.3 Purpose of this Plan

The purpose of this Plan is to establish governance, structures, processes, and systems to ensure integration of all sustainability considerations, initiatives, monitoring and reporting during the detailed design and construction phases of the Belmont Desalination Plant Project (the Project).

This Plan describes how John Holland will consider and deliver on the sustainability objectives and commitments throughout the delivery of the Project.

The SuMP will include:

- Sustainability objectives and targets.
- Roles and responsibilities for sustainability management, including adequate resourcing of sustainability. Inspection, monitoring and auditing requirements. Provisions for sustainability performance measures and reporting and review by senior management.
- Provisions for the assessment and management of supplier sustainability performance.
- Processes for the management of sustainability risks and opportunities.
- Compliance with Hunter Water Sustainability conditions of approval.
- A process to achieve an 'Excellent' Design and As Built (D&AB) rating with the ISC applying the IS rating scheme version 1.2 (ISv1.2).

2.3.4 Structure of this Plan

This Plan is one of the Management Plans in the Project Management System developed for the Project. The Project Management Plan, together with its subordinate plans, forms the basis of the Project Management System (PMS) for the Project. This plan is based on Sustainability Management Plan template in the John Holland IMS. This SuMP follows the structure in Table 4.

Table 4: SuMP Structure Overview

Section	Overview
Governance & Management Framework	This section outlines the project governance and commitment and involvement of leadership in driving sustainability outcomes and setting objectives and targets for the Workplace.
Planning	This section details the strategies and objectives for achieving sustainability objectives and targets, including risks, training and awareness, communication across all phases of the project lifecycle.
Monitoring	This section explains the methods and tools used to track and measure the progress of sustainability objectives and target, including monitoring and inspections auditing, non-conformance and corrective actions, reporting requirements and management review of this plan.
Review	This section outlines the specific requirements for continual improvement and knowledge and learning.
General Appendices A & B	This section includes any additional supporting documents, data, or references that are relevant to the sustainability management plan but not included in the main body, including policies, definitions, and interactions with other Project Plans.
Rating specific Appendix D to E	This section addresses any specific ISv1.2. rating system requirements
Project Software Appendix F	This section describes the project management software that will be used to manage the data inputs.

2.3.5 How to use this Workplace Sustainability Management Plan

This Plan is subsidiary to and should be read in conjunction with the PMP and interfaces with the Project Management System and the Hierarchy of Project Plans as described in the PMP. Other Project Plans that interface with the SuMP are listed in Appendix C.

To supplement the sustainability requirements, specific documents have been developed to manage the delivery of sustainability requirements for the Project. These are noted in Appendix A and detailed in the relevant sections of this plan. The objective is to ensure all requirements for sustainability, are captured within the functional / discipline specific governing documents, rather than being siloed within the SuMP.

Appendix C Credit Governance and Accountability, shows the interdisciplinary relationship and accountability of the Project and the Senior Leadership Team (SLT) with respect to achieving sustainability outcomes across the whole Project.

3 Governance

3.1 Sustainability Policy

John Holland and Hunter Water are committed to integrating economic growth, environmental resilience, and social progress as priorities into decision-making at every level of their business, with the ambition to create long-term value.

The Project will be covered by the John Holland Sustainability Policy and John Holland Environment Policy, both dated November 2024, for the design, construction and commissioning of the plant, and the Hunter Water Environment Policy, dated September 2023, for the planning, construction and ongoing operation and maintenance. Together, these policies integrate sustainability throughout all aspects of the development, design, delivery and operation of water infrastructure.

A copy of all policies is provided in Appendix A. Additionally, all policies are publicly available on the respective company websites linked below:

- John Holland Sustainability Policy
- John Holland Environment Policy
- Hunter Water Environment Policy

The John Holland Sustainability, Environmental and the Hunter Water Environment policies group their commitments into key themes; Caring and Wellbeing, Empowering and Trust, Imaginative and Learning, and Future-focused. At a minimum the targets listed in Table 7 below map directly to these policies and their commitments through:

- Improved environmental outcomes and asset resilience
- Working with supply chains to implement material savings initiatives
- Measuring and reporting sustainability performance; and
- Establishing project systems and process for effective and efficient delivery and operation of the project.

3.2 Sustainability Strategy

The Hunter Water Sustainability Strategy is part of the suite of organisation-wide strategies that support and complement the Hunter Water Corporate Strategy. In 2024 Hunter Water revised its Sustainability Strategy. The revised strategy will help Hunter Water to navigate the complexity of interconnected environmental, social, and economic challenges and take advantage of future opportunities as they adapt to a more uncertain future.

The 2024 Sustainability Strategy (**Error! Reference source not found.**) is a plan to transition from an approach f ocused on reducing harm to one that creates a positive impact. The strategy outlines the key drivers for change, which are listed below in **Error! Reference source not found.** and has been structured around four key o bjectives that tell the story of how we will address our most material issues.

1. **Improve water security** for our community by making the most of our water resources and improving the resilience of our system.
2. **Care for the environment** across our operations and working towards healthier and more resilient ecosystems.
3. **Respond to climate change** by reducing our greenhouse gas emissions and adapting our assets, operations, and services to improve our resilience.
4. **Contribute to our community** by partnering with our communities to improve the liveability and prosperity of our region.

Table 5: Hunter Water key drivers of the change (Hunter Water Sustainability Strategy 2024).

Driver	Description
Increasing environmental and social challenges	**Water security, biodiversity loss, and intergenerational equity** are some of the current and emerging challenges we face. We will consider the diverse **current needs** of our communities and environment and **future risks and opportunities** to help create a sustainable water future for all.
A growing region	Our region's **population is forecast to grow** by more than 20% over the next 20 years. Safe and reliable water services underpin this growth, delivering the right solutions at the right time to support **liveable communities** and enable **regional prosperity**. Hunter

Driver	Description
	Water has a role in supporting a thriving **local economy** and **enabling industry transition** in the Hunter.
A more variable climate	Our assets, operations, and services are exposed to a range of climate change risks, including increased severity of weather events, increasing mean temperatures, more frequent and severe droughts, bushfires, and rising sea levels. We need to respond to the physical and transitional **risks and opportunities** that a changing climate presents at the right time to ensure a resilient future.
Increasing expectations and regulations	Our **customers, communities, stakeholders, and shareholders** expect Hunter Water to be open and transparent in providing services that meet our community's needs without compromising the ability of future generations to do the same. As our regulatory and reporting expectations evolve, we must **anticipate** future shifts and ensure our readiness to adapt and respond.
Navigating uncertainty and complexity	For Hunter Water, navigating complexity involves understanding and addressing a multitude of **interconnected environmental, social, and economic challenges**. This includes **adapting to future uncertainties** and being well-positioned to respond and adapt.

For each of the sustainability objectives, Hunter Water have defined an ambitious future state and aspirational goals that are aligned with the Brundtland definition of sustainability. These are provided in below in **Error! R eference source not found.**.

Under the first objective of “Improved water security “Hunter Water has identified three measures of performance With corresponding 2030 targets (see **Error! Reference source not found.**The delivery of the Belmont D esalination Plant is listed as a 2030 target in the Hunter Water Sustainability Strategy. This SuMP and Target 1 in Table 7 establishes the pathway to deliver on one of those milestones; *Achieve an “Excellent” IS Rating for Design and As Built under version 1.2 of the Infrastructure Sustainability Council’s Infrastructure Sustainability Rating Scheme.*

The ISCA, IS Technical Manual, Version 1.2 has been used as the guiding document in addressing the sustainability considerations throughout the preliminary and early works phases of the project. Undertaking ecologically sustainable design continues to be a priority for the Project. Consideration of the Hunter Water Sustainability Strategy and embedding sustainability principles during the detailed design will be key to achieving the project milestone in relation to ecological sustainable development.

Hunter Water have identified that the delivery of the Belmont Desalination Plant will contribute directly to two of the 17 United Nation’s Sustainable Development Goals (UNSDG). These being:

SDG 6: Clean water and sanitation - Investments in infrastructure and sanitation facilities; protection and restoration of water- related ecosystems; and hygiene education are among the steps necessary to ensure universal access to safe and affordable drinking water for all by 2030, and improving water-use efficiency is one key to reducing water stress.

SDG 12: Responsible consumption and production- ensuring sustainable consumption and production patterns of drinking water (in this case), which is key to sustain the livelihoods of current and future generations.

Table 6: Objective 1 Measures and Targets

Measures	2030 Targets
Reduce drinking water consumption	13% reduction compared to water use behaviour in 2016-18
Reduce leakage from Hunter Water network	Less than or equal to 50L/connection/day
Progress in delivery of the Belmont Desalination Plant	Key milestones met in 2028

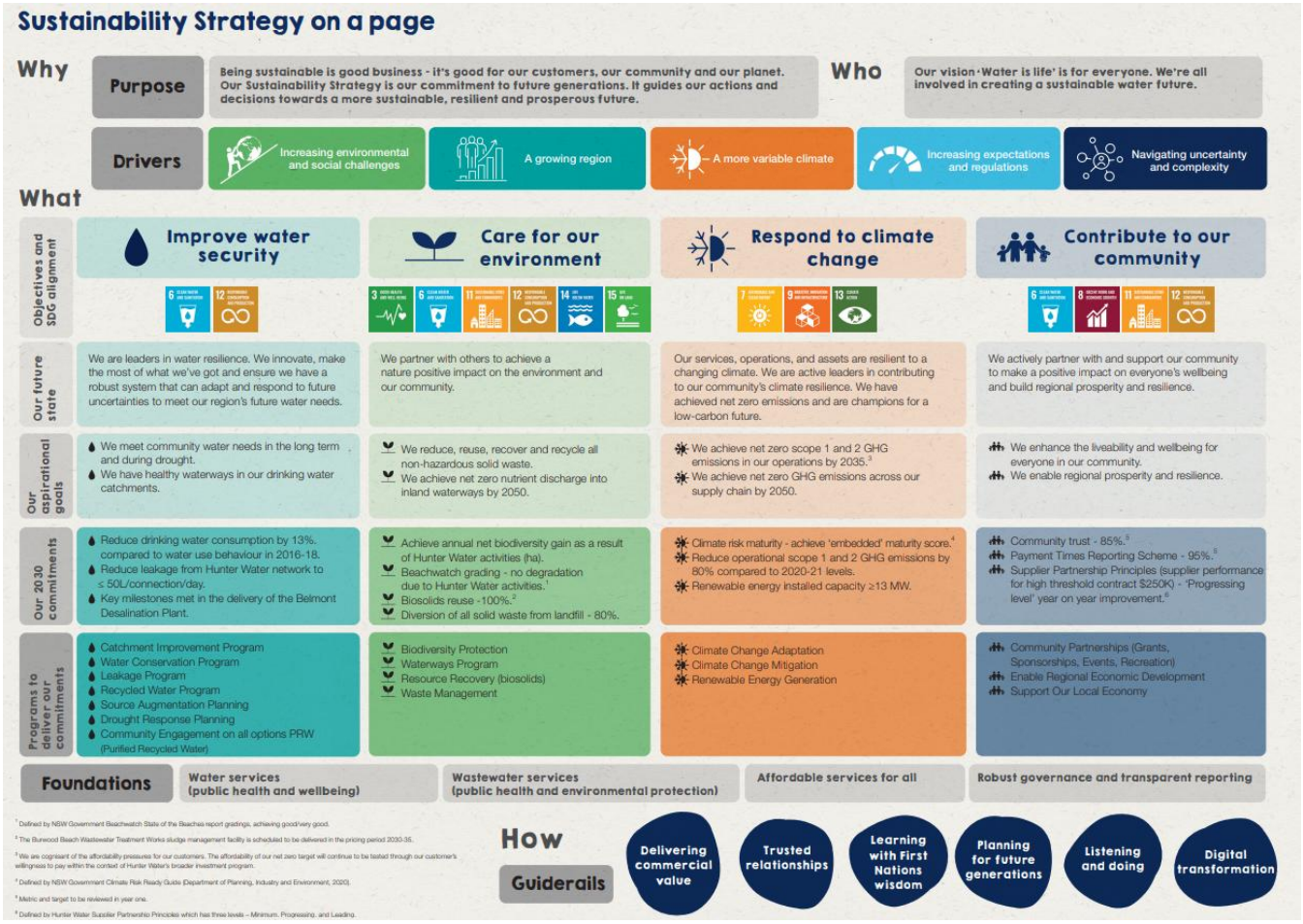


Figure 3: Hunter Water Sustainability Strategy

3.2.1 Sustainability Goals & Objectives

The goal of the Lower Hunter Water Security Plan (LHWSP) is to provide a resilient and sustainable water future that contributes to regional health and prosperity and is supported by the community. Figure 4 outlines the plan's objectives in achieving this goal.

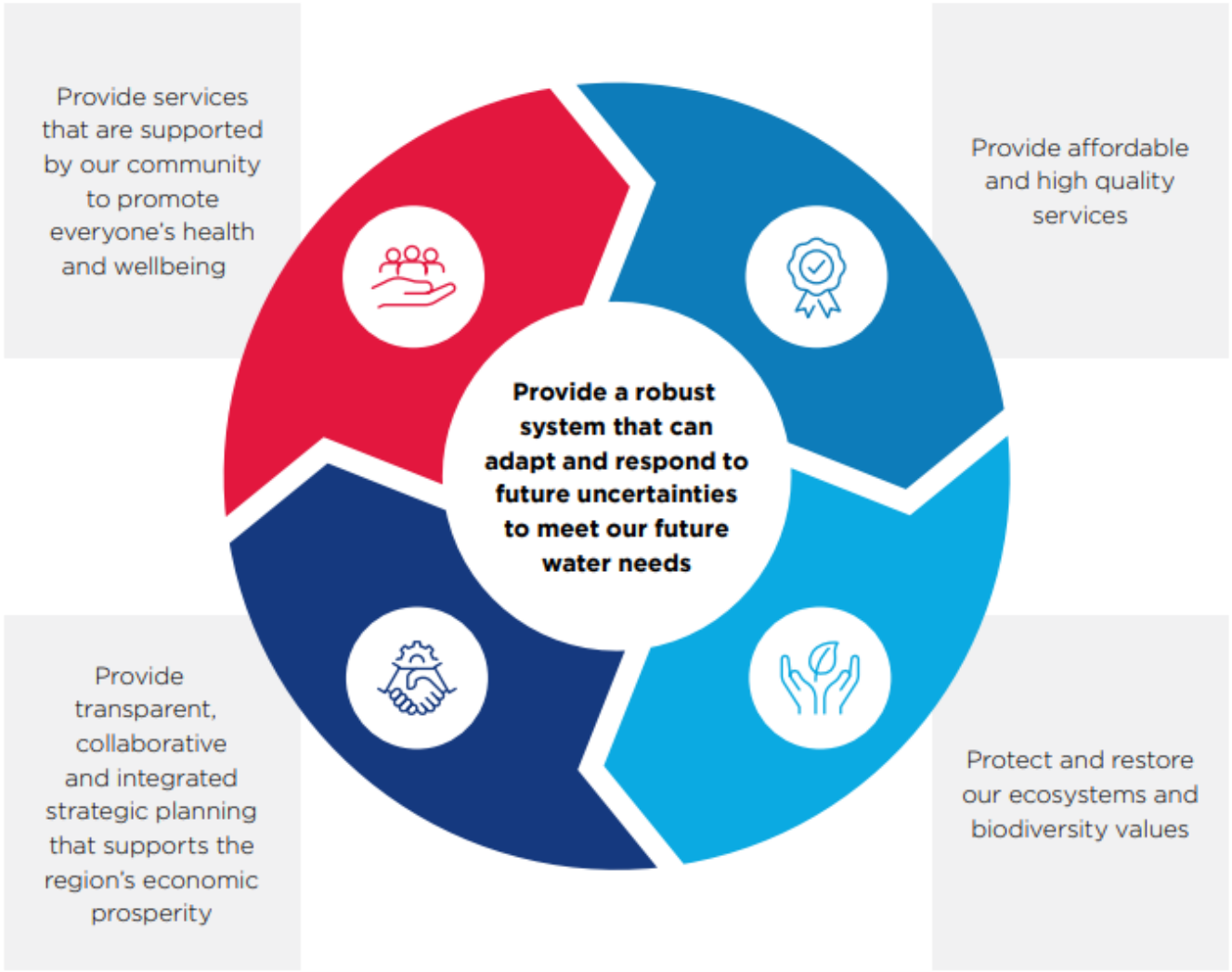


Figure 4: LHWSP Objectives

The Belmont Desalination Plant objectives support the LHWSP goal by:

1. Providing a rainfall independent water source.
2. Slowing the depletion of existing water storages in the event of an extreme drought.

The JH Sustainability Policy is also consistent with the objectives of the LHWSP and Hunter Water Sustainability Strategy through the commitment of integrating economic growth, environmental resilience, social progress and long-term value. The policy is aligned with the objective for strategic planning to support regional economic prosperity as it explicitly acknowledges that sustainability enables long-term financial resilience.

3.2.2 Sustainability Targets

The Project has established a set of targets linked to the John Holland Sustainability Policy, the Hunter Water Sustainability Strategy and the LHWSP to guide our efforts towards achieving sustainable outcomes for the Project.

Sustainability Targets have been identified and agreed upon by the Project Leadership Team to meet the Project's sustainability commitments, objectives, and contractual requirements. These targets are outlined in the table below.

Table 7: Sustainability Targets

Key Performance Indicator		Target	Timeframe	How will Target be Achieved	Policy Commitment
1	Infrastructure Sustainability Council (ISC) Rating.	Achieve an "Excellent" IS Rating for Design and As Built under version 1.2 of the IS rating scheme	At completion of Design and Construction works.	Implementation of this SuMP.	Caring / Wellbeing Empowering / Trust Imaginative / Learning Future-focused
2	Energy efficiency and greenhouse gas (GHG) reduction.	Identify, scope and implement a minimum of three energy and carbon efficiency initiatives that minimise carbon emissions or, energy use.	Design Phase.	Energy footprint for the operational life is reduced by 10% compared to a business-as-usual base case footprint.	Future-focused Imaginative / Learning
3	Energy efficiency and GHG reduction.	Identify and implement construction energy and carbon efficiency initiatives and implement those carbon and energy efficiency initiatives identified where practical.	Construction Phase.	Energy footprint for the construction activities is reduced by 10% compared to a business-as-usual base case footprint.	Future-focused Imaginative / Learning
4	Energy efficiency and GHG reduction.	Identify, scope and implement alternative fuel and energy technologies for onshore construction.	Design and Construction Phase.	Eligible plant and equipment have been assessed and alternatives implemented where possible with fuel usage reported monthly.	Future-focused Imaginative / Learning
5	Water resource conservation.	Identify, scope and implement non-potable water initiatives that reduce total potable water demand and optimise recycled water use.	Design and Construction Phase.	Total water consumption is reported monthly during construction and modelled for operation	Future-focused Imaginative / Learning
6	Materials lifecycle impacts.	Identify scope and implement a minimum of three material saving initiatives that minimise embodied carbon emissions.	Design and Construction Phase	Greater than 3% of products have an approved ISC environmental labels.	Future-focused Imaginative / Learning
7	Waste minimisation.	Identify, investigate and scope sustainability initiatives to maximise waste landfill diversion.	Design and Construction Phase	Implementation of the CEMP and Waste Management Sub-plan.	Future-focused Imaginative / Learning
8	Workforce development, diversity and inclusion	Report on all spending on supplier engagements which are indigenous enterprises or social enterprises.	Design and Construction Phase.	The total contract spend as a percentage of the total contract value will be provided.	Caring / Wellbeing Empowering / Trust
9	Workforce development, diversity and inclusion	Report on the number of, or percentage of the following demographics: (a) People who identify as indigenous. (b) Women. (c) People living with a disability; (d) People who identify as part of the LGBTQI community. (e) People who are under 30 years of age; and (f) People who are culturally and linguistically diverse.	Design and Construction Phase	Where possible the demographics will be reported for the construction period.	Caring / Wellbeing Empowering / Trust
10	Maintaining and Enhancing Ecology	Ensure that the Project has a minimum net neutral ecological value impact on the Project site.	Design and Construction Phase	Determined using the Green Star Design and As Built Ecological Value Calculator.	Empowering / Trust Future-focused / Imaginative / Learning

3.3 Leadership

The Workplace Organisational Chart is accessible in the Workplace Organisation Chart (see Appendix D). This chart is a controlled document and reflects the reporting structure within this workplace. The Chart will be posted in a prominent and appropriate Workplace location.

John Holland's workforce engaged at the workplace will have developed Position Descriptions which can be supplemented by the Responsibility and Accountability Matrix JH-APP-WHS-001-04, this document is maintained by each workplace.

3.3.1 Roles and Responsibilities

To achieve sustainable outcomes, everyone within the Project must actively understand their responsibilities around sustainability objectives and targets. Roles and responsibilities within Table 8: Roles and sustainability responsibilities below are critical to achieving the required sustainability outcomes of the Project. The sustainability responsibilities identified within Table 8 and are acknowledged by each individual fulfilling the role.

The Project Director is ultimately responsible for ensuring contract sustainability requirements are achieved inclusive of the achievement of a "Excellent" Design and As-built rating under ISC v1.2 rating tool.

The Project has also appointed a dedicated Infrastructure Sustainability Accredited Professional to drive sustainability performance on the Project, who will be assisted by Suitably Qualified Professionals to support the required credits level and score specific to individual credits.

Table 8: Roles and sustainability responsibilities

Role	Responsibilities
Project Director	▪ Lead sustainability culture on the project and support the Workplace Sustainability Representative (WSR) to ensure sustainability management (including IS Ratings progress) is included within all project leadership meetings. ▪ Ensure that project leaders are held to account for their sustainability responsibilities.
Sustainability Manager ***Workplace Sustainability Representative (WSR)***	▪ Support the Project Director with leading the project's sustainability culture and incorporating sustainability requirements throughout the full Design and Delivery Phases. ▪ Liaise with design managers, procurement team, project team, bid team, BU environment/sustainability team, and subcontractors to communicate contract and IS Rating sustainability requirements. ▪ WSR must be an ISAP qualified and implement sustainability requirements of the project, coordinate and prepare IS Rating submission, and interface with ISC project manager to communicate project information as necessary.
Construction Manager	▪ Understand and incorporate sustainability requirements and initiatives within Construction Methodology, Construction Management Plans and Safety, Quality, Environment Risk Management (SQERM) Review process. ▪ Provide construction progress updates and technical information to WSR to meet IS Rating Criteria.
Engineering Manager	▪ Understand and incorporate Sustainability in Design (SuID) principles and sustainability requirements throughout full design phase. ▪ Liaise with WSR and design consultants to ensure sustainability inputs are consistent with Tender design principles and provide design updates and technical information to sustainability team to meet IS Rating Criteria.
Environment Manager ***Workplace Environment Representative (WER)***	▪ Understand and incorporate sustainability requirements and initiatives within Environmental Management Plan and processes where relevant, Construction Management Plans and SQERM Review process. ▪ Support the WSR with environmental data reporting to support contract sustainability requirements. ▪ Ensure sustainability commitments (including energy efficiency, waste, environmental monitoring etc.) are communicated to relevant project personnel and included in relevant ITP's, SWMS, EWMS and AMS's.
Commercial Manager	▪ Ensure sustainability requirements are included in supplier and subcontractor subcontracts and support sustainability team with sourcing sustainability data.

Role	Responsibilities
	▪ Evaluate and monitor sustainability performance of high impact suppliers / subcontractors in partnership with the WSR.
Community and Stakeholder Manager	▪ Understand and incorporate sustainability requirements and initiatives within the Communications and Stakeholder Engagement Plan and processes where relevant. ▪ Support the WSR with data reporting e.g. complaints data and community/stakeholder information to support contract sustainability requirements.
Quality Manager	▪ Provide support to the WSR and project team to incorporate contract and IS sustainability requirements into quality systems and processes to achieve targeted IS credits
Engineers	▪ Support the WSR with Design and/or Construction technical information to achieve the specified IS Rating criteria (including but not limited to Lan-4, Ene-1, Ene-2, Mat-1, Was-3, Inn-1). ▪ Ensure sustainability requirements are included in supplier and subcontractor subcontracts and support sustainability team with sourcing sustainability data
Suitably Qualified Professional (SQP)	▪ Undertake credit specific, Subject Matter Expert (SME) tasks to support the required level and score for each relevant credit.
Independent Sustainability Professional	▪ Undertaking independent and objective sustainability review and audit tasks (notably in compliance with ISC v1.2 credits Man-3 and Man-4).
IS Project Manager	▪ An ISC staff member assigned to the Project providing the first point of contact for the assessor and support for the Project.
IS Accredited Professional (ISAP)	▪ Recognised industry specialist who has completed the IS Training for Professionals and maintained their accreditation to apply the IS Rating Scheme on registered projects and assets.
ISC Verifier(s)	▪ Verifiers are independent specialists assigned to the Project during the assessment stage to provide independent verification of the weightings assessment, the base case proposal, and the self-assessment.
Hunter Water Project Director	▪ Overall responsibility and authority for ensuring that the Hunter Water sustainability management conforms to Hunter Water requirements. ▪ Reporting on the performance of the Project, with regards to sustainability, to Hunter Water upper management and interested parties.

4 Management Framework

John Holland's Sustainability Management System (SMS) is described in Figure 5 below. The SMS is applicable to all Workplaces and details how sustainability is implemented during the Win, Deliver and Complete phases across all projects.

The Sustainability Management System fits within John Holland's Integrated Management System (IMS) certified to AS/NZ ISO9001, AS/NZ ISO14001 and AS/NZ ISO4801 and can be accessed via the John Holland Intranet and John Holland HSC SharePoint Portal.

The Sustainability Management System provides procedures, tools and templates to support the Project to achieve successful delivery with a strong focus on resource use (energy, water, waste, materials) and sustainable procurement. There are two key procedures in the SMS:

- Achieving Sustainability Outcomes - Precontracts Phase (JH-MPR-SST-001)
- Achieving Sustainability Outcomes - Deliver Phase (JH-MPR-SST-002).

Other procedures, tools and forms implemented as part of the Project will be referenced where applicable.

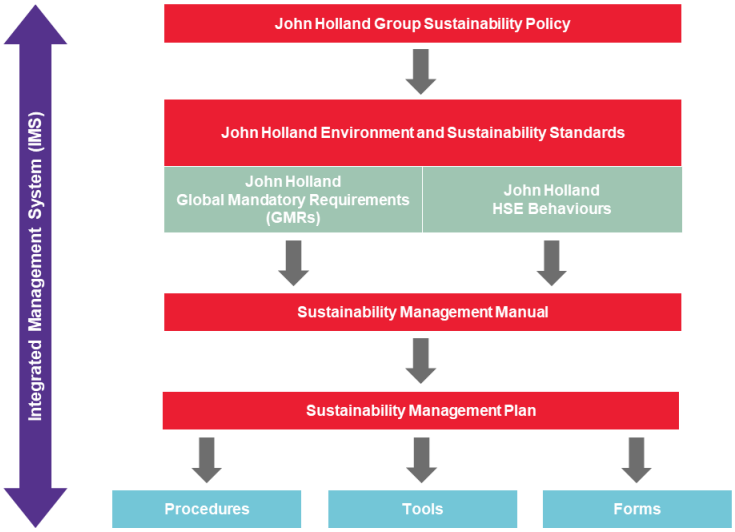


Figure 5: John Holland SMS structure

4.1.1 Sustainability Framework

John Holland have developed a framework to define sustainability (Figure 6); breaking it down into four core pillars, each with three elements to guide how we operate and make decisions to achieve our business goals. The framework governs the way we work through the four pillars aligns to our values and 12 Sustainability Elements. These 12 Sustainability Elements focus on the key interactions with our supply chain, customers, communities, and the environment, throughout the project lifecycle. The Framework also enables John Holland to work towards the UN Sustainable Development Goals. Our core pillars are as follows:

- Our Community and Partners: Caring
- Leadership and Strategy: Imaginative
- Our People: Empowering
- Built and Natural Environment: Future-focused.

The Framework is designed to leverage our people and diverse expertise by encouraging an authentic, collaborative, interconnected approach to decision making, centring on Sustainability.

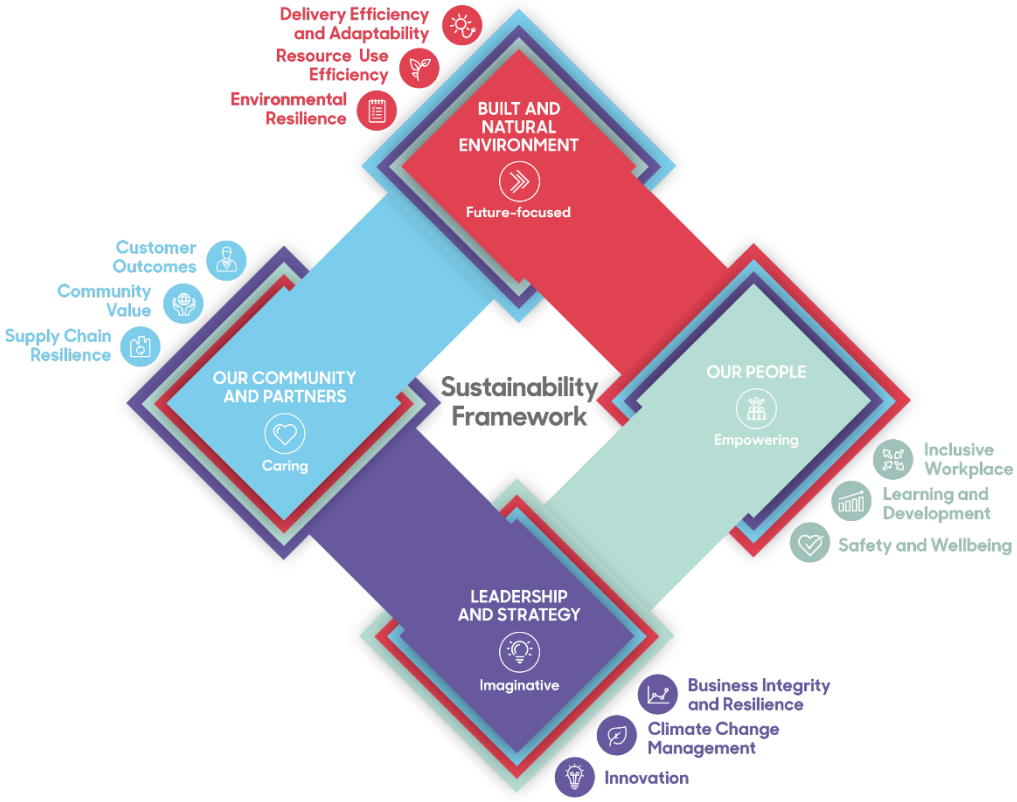


Figure 6: Sustainability Framework

4.2 Competencies, Training and Awareness

Reference Doc No.	Reference Title
JH-MPR-PPL-020	Learning and Development
JH-MPR-SQE-001	Site Induction
Nil	John Holland Mandatory Training Matrix
JH-MPR-WHS-041	Global Mandatory Requirements
CS1135-WT-BEL-HR-PLN-0002	Training Management Plan
JH-MPR-SQE-001	Site Inductions
Nil	Site Toolbox Talks

Workplace training will be managed as per Training Management Plan and John Holland procedures, Learning and Development and Site Induction.

Subcontractor training and competency responsibilities will be included in subcontractor agreements, as outlined in Section 5.5.

Records for all training activities will be maintained. For John Holland workforce, training requirements will be documented in the Learning Management System (LMS). For subcontractors training requirements will be documented in the LMS (those with a learning profile) or via a workplace training plan. Training records are maintained by People Management.

All Sustainability Training content will be reviewed on an annual basis as a minimum.

4.3 Risk

Reference Doc No.	Reference Title
JH-MAN-RCC-001	Risk Management Manual
JH-MPR-RCC-001	Risk Management – Delivery
JH-MPR-RCC-002	Risk Management - Precontracts
CS1135-WT-BEL-SA-PLN-0010	Risk Management Sub-Plan

The Project's risk and opportunity management framework is governed by the John Holland Risk Management System. The Project has proactively identified and commenced addressing risks and opportunities, allowing the mitigation of potential risks and focus on opportunities that align with our sustainability objectives and targets.

Direct and indirect, sustainability risks; threats and opportunities will be considered at each stage of the Project, considering design, construction, and operational phases. The John Holland risk management process is applied throughout pre-contracts and delivery in accordance with the referenced documents above. A Precontracts Review of potential Health, Safety, Environment, Sustainability and Quality risks was completed in August 2023 prior to the submission of the preliminary TOC.

4.3.1 Risks and Opportunities

Operational risks (including health, sustainability, climate and quality risks) are managed primarily through the Safety, Quality and Environmental Risk Management (SQERM) process and the Workplace Risk Assessment (WRA). These are described in accordance with the John Holland Safety, Quality and Environment risk management procedure.

Sustainability risk categories identified within the JH WRA Template are:

- Suppliers not screened for compliance
- Conflicting standards
- Fuel & energy use not tracked/reported
- Water use not tracked/reported; and
- Targets not met

Sustainability risks and opportunities are managed and documented regularly (at least annually) in the Project Sustainability Risk and Opportunity Register. These include but are not limited to the risks identified above (see Section 4.3.3).

Risks rated as having a consequence of Moderate (3) or above as per the tables below, and which are not the responsibility of the client are included with the six monthly WRA review process as per the John Holland Risk Management System

The Project Sustainability Risk and Opportunity Register facilitates the identification, assessment and documentation of risks and opportunities on aspects such as Environment and Natural Resources, Workplace Health and Safety, Quality, Community & Stakeholder impacts, Local Economy / Education, Management Impacts (i.e. Governance) and more (i.e. social, environmental, economic and governance).

This register has the capacity to assess both direct and indirect risks and opportunities across all project phase (i.e. design, construction and operation). (Note: this register does not assess financial/commercial/legal risks and opportunities which are managed in a separate register).

4.3.2 Risks and Opportunities Criteria Matrices

The following tables are the criteria used for the Non-Financial Risk and Opportunity assessment on the Project.

Consequence Matrix – Risk (Non-Financial)

RATING	Insignificant 1	Minor 2	Moderate 3	Major 4	Substantial 5
Health and Safety	* First aid injury, and/or * Minor safe working issues	* Medical treatment, and/or * Moderate safe working breach likely to impact on operations	* Serious medical / hospital treatment resulting in need alternate working or resulting in lost time injury, and/or * Significant safe working breach with actual impact on operations	* Serious or permanent Injury, and/or * Significant safe working beach with immediate impact on operations on one or more worksites	* 1 or more fatalities, and/or * Major breach of safe working with immediate and extensive impact on one or more worksites
Environment and Heritage	* Low severity environmental impact(s) or impact on natural resources availability that are promptly reversible and affected area is within the site boundary * Minor loss of natural resources (e.g. energy, water, materials) as compared to standard practice *Short-term ecological damage	* Nuisance or low severity environmental impact(s) or impact on natural resources availability that are promptly reversible and affected area is outside the site boundary * Minor-moderate loss of natural resources as compared to standard practice *Limited but medium-term ecological damage	* Moderate severity environmental impact(s) or impact on natural resources availability where the affected area is within the site boundary * Moderate loss of natural resources as compared to standard practice *Major but recoverable ecological damage	*Moderate severity environmental impact(s) or impact on natural resources availability where the affected area is outside the site boundary * Moderate-significant loss of natural resources as compared to standard practice *Heavy ecological restoration, including cost restoration, required	*High severity environmental impact(s) or impact on natural resources availability at local scale significance * Moderate-significant loss of natural resources as compared to standard practice *Permanent ecological damage
Cost	* Rework Costs less than or equal to 10K	* Rework Costs less than or equal to 100K but greater than 10K	* Rework Costs less than or equal to 1M but greater than 100K	* Rework Costs less than or equal to 5% contract value but greater than 1MK	Rework Costs greater than 5% of contract value
Reputation and Governance	* Public concern restricted to local complaints * Lack of contribution to the community * Lack of engagement with local businesses * Very minor technical breach of regulation or policy or code of ethics. * No fine / penalty	* Minor, adverse local public or media attention and complaints * Employees warned only * Minor change in community amenity values * Minor negative impacts on local businesses adjacent to Project (e.g. traffic or similar impacts resulting in loss of business/productivity) * Minor legal issues, non-compliances and breaches of regulation, policy or code of ethics * Enforceable Undertaking	* Attention from media and/ or heightened concern by local community *Loss of client and/or project * Stakeholder action will disrupt planned project activities * Disciplinary action may be taken * Temporary reduced community access to services or employment * Moderate negative impacts on local businesses * Moderate breach of regulation, policy or code with investigation or report to authority * Moderate legal proceedings initiated * Several Improvement Notices	* Significant adverse national media / public / NGO attention * Considerable and prolonged adverse community impact and dissatisfaction publicity expressed *Loss of long-term client * Stakeholder action will delay achievement of major elements of the Project * Permanently reduced community access to services or employment * Moderate/significant negative impacts on local businesses * Significant breach of regulation, policy or code with fine or other regulatory action. Significant litigation / legal action * Shut down of part of a project due to regulatory breach * Prohibition Notice	* Serious public or media outcry with international coverage * Significant adverse community impact & condemnation *Loss of business from key sector * Stakeholder action will prevent achievement of the project objectives * Reduced cohesion of community * Significant negative impacts on local businesses * Major breach of regulation, policy or code with fine * Major litigation * Major investigation by regulatory body * Prosecution / Accreditation loss

RATING	Insignificant 1	Minor 2	Moderate 3	Major 4	Substantial 5
Time	* Impact of event absorbed through normal activity * Minor reduction in personnel/subcontractor resource efficiency related to governance/management	* Will require some local management attention over several days * Minor-moderate reduction in personnel/subcontractor resource efficiency related to governance/management	* Significant event that can be managed with careful attention, will take some project managers much time for several weeks * Local operation of contingency plan * Moderate reduction in personnel/subcontractor resource efficiency related to governance/management	* Major event that requires the implementation of crisis and contingency plans at a project level, regional area or support function (DRP) * Will require the involvement of senior managers and will take up the time of project managers for several weeks * Moderate/significant reduction in efficiency of resource requirements related to governance/management	* Critical event or disaster with significant impact on John Holland that requires considerable senior management time to handle over several months * Full implementation of a John Holland's crisis management plan for days to weeks * Significant reduction in efficiency of resource requirements related to governance/management

Consequence Matrix – Opportunity (Non-Financial)

RATING	Insignificant 1	Minor 2	Moderate 3	Major 4	Substantial 5
Health and Safety	* Prevents first aid injury * Prevents minor safe working issues * Unlikely to impact on operational activities	* Prevents medical treatment * Prevents moderate safe working beach likely to have impacted operational activities	* Prevention of serious medical / hospital treatment that would have resulted in a lost time injury or required alternate working.	* Prevents serious major, reversible injury, requires long term ongoing treatment and rehabilitation	* Prevention of a single or multiple fatality * Prevent any type of permanent disability or major injury to < 10 people
Environment and Heritage	* Minor positive environmental and natural resource benefits that is within the site boundary * Minor saving of natural resource use (e.g. energy, water, materials) as compared to standard practice	* Minor positive environmental and natural resource benefits that extends outside the site boundary * Minor-moderate saving of natural resource use (e.g. energy, water, materials) as compared to standard practice	* Moderate positive environmental and natural resource benefits that within the site boundary * Moderate saving of natural resource use (e.g. energy, water, materials) as compared to standard practice	* Moderate positive environmental and natural resource benefits that extends outside the site boundary * Moderate-major saving of natural resource use (e.g. energy, water, materials) as compared to standard practice	* High positive environmental and natural resource benefits that is of local scale significance * Major saving of natural resource use (e.g. energy, water, materials) as compared to standard practice
Cost	* Prevents Rework Costs less than or equal to 20K	* Prevents Rework Costs less than or equal to 100K but greater than 20K	* Prevents Rework Costs less than or equal to 250K but greater than 100K	* Prevents Rework Costs less than or equal to 5% contract value but greater than 250K	* Prevents Rework Costs greater than 5% of contract value
Reputation	* No complaints from community, stakeholders or local businesses * No negative coverage * Minor improvement to local economy (e.g. 1 additional employment opportunity or minor goods/services contract) * Reinforces local and Aboriginal supply chain capability *<5% local content *<1% Aboriginal supply/content	* Brief positive local media coverage * Minor stakeholder praise * Minor-moderate improvement to local economy (e.g. 1-5 opportunities created) *5-10% local content *1-2% Aboriginal supply/content	* Positive local media attention *Once-off positive state media attention * Sectional community praise publicly expressed *Increase of confidence and trust in capability by community * Stakeholder action resulting in enhanced ability to achieve project activities * Moderate improvement to local economy (e.g. 5-10 opportunities created) *Creates additional flexibility in Local and Aboriginal supply chains *10-15% local content *3-4% Aboriginal supply/content	* Consistent positive local media attention * Community praise and satisfaction expressed publicly * Stakeholder action resulting in enhancements to project key elements * Moderate-significant improvements to local economy (10-20 opportunities created) *15-25% local content *5% Aboriginal supply/content	* Consistent, significant positive local media attention *State-wide positive sentiment and positive media attention * Significant community praise and satisfaction expressed publicly * Stakeholder action resulting in enhancements to project outcomes *Builds new local and Aboriginal supply chain capability * Significant improvements to local economy (>20 opportunities created) *>25% local content *>5% Aboriginal supply/content
Community Benefit	* One person upskilled or enrolled in an accredited course *0-2% increase Aboriginal employment e.g. traineeship,	* 1-5 people upskilled or enrolled in an accredited course *3-5% increase Aboriginal employment e.g. traineeship, apprenticeship, direct and indirect employment	* 5-15 people upskilled enrolled in an accredited course *6-7% increase Aboriginal employment e.g. traineeship, apprenticeship, direct and indirect employment	* 15-50 people upskilled or enrolled in an accredited course *8-10% increase Aboriginal employment e.g. traineeship, apprenticeship, direct and indirect employment	* >50 people upskilled or enrolled in an accredited course *>10% increase Aboriginal employment e.g. traineeship, apprenticeship, direct and indirect employment

RATING	Insignificant 1	Minor 2	Moderate 3	Major 4	Substantial 5
	apprenticeship, direct and indirect employment * Intangible positive social outcome * Benefit period of <1 week	* Tangible positive social outcome directly adjacent to Project location * Benefit period of 1 week – 1 month	* Tangible positive social outcome with impacts across one LCA in which the Project operates * Benefit period of 1-12 months	* Tangible positive social outcome for multiple LCAs in which the Project operates *Benefit period of 12-24 months	* Tangible positive social outcome with impact within multiple LCAs both where the Project does and doesn't operate * Benefit period >24 months
Governance	* Prevents very minor technical breach of regulation or policy or code of ethics	* Prevents minor legal issues, non-compliances and breaches of regulation, policy or code of ethics. * Prevent Enforceable Undertaking	* Prevents moderate breach of regulation, policy or code with investigation or report to authority * Prevents moderate legal proceedings being initiated * Prevent several Improvement Notices	* Prevents significant breach of regulation, policy or code with fine or other regulatory action * Prevent significant litigation / legal action * Prevent shut down of part of a project due to regulatory breach * Prevent Prohibition Notice	* Prevents major breach of regulation, policy or code with fine * Prevents major litigation * Prevents major investigation by regulatory body * Prevent prosecution / Accreditation loss
Time	* Prevents additional impact * Minor increased efficiency of resource requirements related to governance/ management	* Prevents an impact that would have otherwise required minor management attention over several days to weeks * Minor-moderate increase in efficiency of resource requirements related to governance/management	* Prevents an impact that would otherwise have required moderate management attention over several weeks to month * Prevents implementation of an operation contingency plan * Moderate increase in efficiency of resource requirements related to governance/management	* Prevents an impact that would otherwise require the implementation of crisis and contingency plans at a project level, regional area or support function (DRP) * Prevent the requirement to involve John Holland managers and taken up the time of managers for several weeks * Moderate-significant increase in efficiency of resource requirements related to governance/management	* Prevent a critical event or disaster with significant impact on John Holland that requires considerable senior management time to handle over several months * Prevent the full implementation of a John Holland crisis management plan for days to weeks * Significant increase in efficiency of resource requirements related to governance/management
Sustainability Rating	*Does not directly influence the Project's sustainability rating	*Impact of <3% on the Project's sustainability rating *Opportunity is not critical to the achievement of sustainability targets i.e. targets can be achieved through the implementation of other initiatives	*Impact of 3-4% on the Project's sustainability rating *Opportunity has a minor influence on the achievement of sustainability targets	*Impact of 5% on the Project's sustainability rating *Opportunity has a major influence on the achievement of sustainability targets	*Impact of >5% on the Project's sustainability rating *Opportunity is critical to the achievement of sustainability targets

Likelihood scale

LIKELIHOOD RATING	PROBABILITY	FREQUENCY	SIMILIARITY
ALMOST CERTAIN (5)	75 - 100%	Event occurs on a weekly basis	Event occurs in almost all similar projects
LIKELY (4)	50 - 75%	Event occurs on a monthly basis	Event occurs in most similar projects
MODERATE (3)	25 - 50%	Event occurs on an annual basis	Event occurs in half of similar projects
UNLIKELY (2)	5 – 25%	Event occurs once	Event occurs in some similar projects
RARE (1)	0 - 5%	Unlikely for the event to occur	Event occurs in almost no similar projects

Overall Risk Rating

LIKELIHOOD	CONSEQUENCE					
	RATING	INSIGNIFICANT	MINOR	MODERATE	MAJOR	SUBSTANTIAL
	ALMOST CERTAIN	D	C	B	A	A
	LIKELY	D	D	C	B	A
	POSSIBLE	E	D	C	C	B
	UNLIKELY	E	E	D	C	B
	RARE	E	E	D	D	C

4.3.3 Sustainability Risk and Opportunity Register

The Sustainability Risk and Opportunity Register is updated/reviewed annually in a multidisciplinary workshop to identify and evaluate risks and opportunities and determine suitable treatment options or implementation actions.

The workshops involve a cross section of the wider project team (multidisciplinary), including:

- Design team
- Construction team
- Environment team
- Community and Stakeholder Engagement team
- Commercial team
- Commissioning and Operations team (where relevant)
- A member of the Senior Management Team (or representative)

During the annual workshop the multidisciplinary team discuss review the Sustainability Risk and Opportunity Register to determine:

- The risks/opportunities and their assessment/ratings; and
- The treatment option / implementation actions and the reason for selection; and
- Resources required to implement the treatment options/implementation actions; and
- Timing and schedule; and
- Reporting and monitoring requirements; and
- Persons (or roles) responsible for implementing the treatment options, measurement, monitoring and reporting (where required).

The Project will ensure risks and opportunities are reviewed by a multidisciplinary team and updated annually.

5 Planning

5.1 Decision Making

John Holland ensures that decision making in relation to significant issues is characterised by:

- A consideration of options including business-as-usual and other proven approaches taken in comparable situations.
- An evaluation of options that considers environmental, social and economic aspects through multi-criteria analysis or other scored means.
- An evaluation of options based on the useful forecast life of the infrastructure asset (i.e. 100-year design life).

Once these significant issues have been identified, they will be analysed against other business as usual options through the utilisation of the JH Multi-Criteria Analysis (MCA) Decision Making Tool (JH-FRM-SST-002-02)

Generally, when determining what opportunities to include, the following question applies:

- Will undertaking the opportunity reduce capital expenditure and comply with applicable requirements?
- Where the answer is ‘yes’, the opportunity will typically be included automatically. Other opportunities that may require additional expenditure, or modification/relaxation of applicable requirements are considered for inclusion based on the following questions (a consensus on the answers to these questions will generally be sought from the SLT):
- Will undertaking the opportunity reduce whole-of-life cost or impacts?
- Will undertaking the opportunity attend to a material risk or opportunity for the Project, Hunter Water or other stakeholders?

Accordingly, once decision making in relation to opportunities has occurred, the opportunities’ status is updated in the Opportunity Register as either ‘Adopted’ or ‘Rejected’. If the answers to the relevant questions are unclear, the opportunity status will remain ’Further investigation required' and further information will be sought.

5.1.1 Key Legislative, contractual and other requirements

The Project will ensure sustainability requirements are embedded throughout works and aligned with the applicable legislative, contractual and other requirements.

The following table outlines the key Sustainability requirements and where these requirements have been addressed within this SuMP.

Table 9: Key Legislative, Approval Conditions, contractual and other requirements

Requirement	Description	Where addressed
Key Legislation		
National Greenhouse and Energy Reporting Scheme (NGERS) and the National Greenhouse and Energy Reporting Act 2007	NGERS is a single national framework for reporting and sharing company information on Greenhouse Gas (GHG) emissions, energy production and energy consumption.	This Plan, in accordance with JH NGERS and Sustainability Reporting Guideline JH-APP-ENV-002-01
Conditions of Approval		
Ecologically Sustainable Development	Prior to the commencement of construction, unless otherwise agreed by the Planning Secretary, the Proponent must demonstrate that ESD is being achieved by either: (a) registering for a minimum rating with the Infrastructure Sustainability Council of Australia’s (ISCA) Infrastructure Sustainability (IS) rating scheme and submit evidence of registration to the Planning Secretary; or (b) seeking approval from the Planning Secretary for an alternative certification process.	This Plan, Section 1.1 Rating Scheme

Requirement	Description	Where addressed
Mitigation Measures		
Management systems and Procurement and purchasing	Develop and implement a Sustainability Management Plan (SuMP) which establishes governance, structures, processes, and systems to ensure integration of all sustainability considerations, initiatives, monitoring and reporting during the detailed design and construction phases of the Project. The SuMP will include the following: ▪ Sustainability objectives and targets ▪ Roles and responsibilities for sustainability management, including adequate resourcing of sustainability ▪ Inspection, monitoring, and auditing requirements ▪ Provisions for sustainability reporting and review by senior management ▪ Provisions for the assessment and management of supplier sustainability performance	This Plan Section 1.3 Objectives and 4.1.2 Targets Section 3.3.1 Roles and Responsibilities Section 6 Monitoring Section 5.6 Procurement
Energy and Carbon	Incorporate the following measures into future stages of design to improve sustainability performance: ▪ Adopt a target of 10 per cent energy reduction compared to business as usual for a desalination plant, as per the NSW GREP, and integrate this target into Project contracts, in accordance with the Hunter Water GEMP ▪ Procure a desalination module which incorporates energy recovery ▪ Incorporate all financially viable measures to reduce greenhouse gas emissions and energy use into detailed design, in accordance with the Hunter Water Greenhouse and Energy Management Policy ▪ Design operational lighting in accordance with AS 4282 – Control of the obtrusive effects of outdoor lighting	Section 4.1.2 Sustainability Targets Design Management Plan CS1135-WT-BEL-AL-PLN-0003
Energy and Carbon	Incorporate the following measures into future stages of design to improve sustainability performance: ▪ Procure a minimum 6 per cent GreenPower for operation of the Project, in alignment with the requirements of the NSW GREP[1] ▪ Consider offsite renewable energy procurement as part of the procurement process to contribute to meeting the requirements of the NSW GREP	Energy Efficiency and GHG Emissions Sub Plan CS1135-WT-BEL-EN-PLN-0028 Design Management Plan CS1135-WT-BEL-AL-PLN-0003
Energy and Carbon	Incorporate the following measures into construction and operation in alignment with the requirements of the Hunter Water GEMP: ▪ Develop an energy management plan for Project operation ▪ Monitor and report within Hunter Water energy consumption and greenhouse gas emissions ▪ Communicate energy and greenhouse gas management objectives and performance internally and externally ▪ Provide training and raise awareness of energy and greenhouse gas emissions procedures, initiatives and conservation opportunities to employees responsible for operation of the plant	Energy Efficiency and GHG Emissions Sub Plan CS1135-WT-BEL-EN-PLN-0028 Design Management Plan CS1135-WT-BEL-AL-PLN-0003 Section 4.2 Training and awareness Section 6 Monitoring
Water	Monitor water use throughout construction and operation and report as part of Project sustainability reporting, in accordance with the NSW GREP.	Section 6 Monitoring Construction Soil and Water Management Sub-

Requirement	Description	Where addressed
		plan CS1135-WT-BEL-EN-PLN-0021
Materials	Incorporate the following measures into future stages of design to improve sustainability performance: ▪ Consider selection of concrete mixes with low carbon cementitious materials to achieve a reduction in imbedded carbon ▪ Source steel which has an accompanying Environmental Product Declaration (EPD) and has been produced using an energy-reducing production process, such as polymer-injection technology ▪ Undertake value engineering exercises during detailed design to identify opportunities to reduce construction materials use ▪ Incorporate materials reduction initiatives into the sustainability 'lessons learned' for the Project	Design Management Plan CS1135-WT-BEL-AL-PLN-0003 Section 5.6 Procurement Section 6 Monitoring Section 7.3 Knowledge and Learning
Discharges to air, land and water	Incorporate the following measures into procurement to improve sustainability performance and comply with the requirements of the NSW GREP: ▪ Consider EU or US EPA standards when purchasing or leasing non-road diesel plant and equipment. ▪ Consider air emissions from contractor-supplied non-road diesel plant and equipment	Section 5.6 Procurement Section 64 Monitoring
Discharges to air, land and water	Monitor the quality of brine discharge against water quality objectives as recommended in Table 7-9 of the EIS.	Design Management Plan CS1135-WT-BEL-AL-PLN-0003 Construction Soil and Water Management Sub-plan CS1135-WT-BEL-EN-PLN-0021 Water Quality Monitoring Program Operational Water Quality Management Plan
Land	Implement the contamination measures recommended in Table 7-2 of the EIS.	Contaminated Soil Management Plan CS1135-WT-BEL-EN-PLN-0017 Section 6 Monitoring
Waste	▪ Incorporate the following measures into future stages of design to improve sustainability performance: ▪ Develop a plan for waste management, including targets for waste avoidance, waste handling and disposal requirements, monitoring requirements, and reporting of the top three waste streams as per the NSW GREP ▪ Develop a plan for decommissioning and deconstruction which considers the principles of Designing for Deconstruction (DfD; Guy, 2006)	Construction Waste Management Plan CS1135-WT-BEL-EN-PLN-0022 Design Management Plan CS1135-WT-BEL-AL-PLN-0003 Section 6 Monitoring
Community health, wellbeing and safety	Incorporate the Crime Prevention Through Environmental Design (CPTED) principles into detailed design.	Design Management Plan CS1135-WT-BEL-AL-PLN-0003

Requirement	Description	Where addressed
Contractual Requirements		
Obtain an IS 1.2 Excellent As Built Rating	The Contractor is required to register for a minimum rating with the Infrastructure Sustainability Council of Australia's (ISCA) Infrastructure Sustainability (IS) rating scheme.	Section 1.1 Rating Scheme Section 2.2 Rating Scope and Boundaries

1. Mitigation Measure has been superseded by the Condition E25 Part E Operational Environmental Management within the Consolidated Conditions of Approval (SSI 8896).

5.1.2 Key Sustainability Milestones

Key sustainability milestones for the Project are summarised in the table below.

Table 10: Key Sustainability Milestones

Key Milestones	Timing	Status
Early Works		
Preliminary weightings assessment	5/04/2024	Initial Draft
Preliminary base case proposal	18/06/2024	Initial Draft
Design - Energy Efficiency and GHG Emissions Sub Plan	31/05/2024	Initial Draft
Renewable Energy Report	21/06/2024	Initial Draft
Non-Potable Water Source Report	14/06/2024	Initial Draft
Main Works		
Contract award	2/10/2024	Complete
Develop compliance obligations register	9/09/2024	Revision 1 Complete
Preparation of SuMP	19/11/2024	Initial Draft Underway
Sustainability kick-off workshop	18/11/2024	Complete
Complete Value Engineering options assessment	NA	Complete
Develop sustainability initiatives register	9/09/2024	Complete with ongoing review
Verification of weightings assessment	February 2025	Draft prepared for verification
Attend risk and opportunities workshop	26/09/2024	Ongoing throughout project
Climate change risk assessment workshop	April 2025	Initial Draft based on preliminary design
Verification of Base Case	7/03/2024	Draft developed
Round 1 Design submission	September 2025	Yet to be started
Round 2 Design submission	November 2025	Yet to be started

5.2 Communication

5.2.1 Communication of this Plan

All persons who are to carry out work on the Project are made aware of the content of this Plan, and its revisions, in respect to their work; and their right to inspect the plan during the subcontractor engagement process and site induction.

5.2.2 Key Stakeholders

The Project key stakeholders are listed and maintained in the Community Communication Strategy as referenced in Appendix C. The Community Communication Strategy is a live document and will be updated as Project Stakeholders change.

5.2.3 Internal

John Holland will maintain communication to ensure that workforce and contractors are made aware of Sustainability issues and of the actions being taken to address them. Consideration must be given to any workers whose first language is not English. All internal communications will be in accordance with the John Holland Community and Stakeholder Engagement Manual and the Project Community Communication Strategy.

Table 11: Internal Communication Plan

Activity	Frequency	Participants	Content	Records
Site Induction	Prior to Start	All workforce and contractors	Minimum as per JH Site Induction JH-MPR-SQE-001	Leaning Management System (LMS)
Pre-Start Meetings	Daily	All workforce and contractors	Recurring agenda item	SharePoint
Toolbox Meetings	Weekly	All workforce and contractors	As required	Toolbox Meeting record of attendance
Contract correspondence and Meetings	As nominated by Project Manager	Workplace manager, Site supervision, other relevant parties	Recurring agenda item	Aconex
Team Meetings	As nominated by Project Director	Project team	Recurring agenda item	SharePoint
Design Meetings	As nominated by Design Manager	Design Team Sustainability Rep	Recurring agenda item in relevant meetings	SharePoint
Project Reporting	As per reporting section 6.4			Aconex

5.2.4 External

All external communications will be in accordance with the John Holland Communication and Stakeholder Engagement Manual and the Project Community Communication Strategy.

Table 12: External Communication Plan

Activity	Frequency	Reference	Records
John Holland Sustainability Forums	Quarterly or as required	Including but not limited to the Operational Sustainability and Environment Forum (OESF), BU Sustainability Forums, Other relevant forums or meetings.	SharePoint
Case studies, lessons learnt	as required	Provided to John Holland for inclusion in the Innovation Register and Case Studies on the Health and Safety Committee (HSC) Portal and Knowledge Management System.	SharePoint
Awards/ Conferences/ industry event participation and external speaking	As required	Advice and approval of all external promotion activities is required. Approval can be sought by completing the speaking engagement form.	SharePoint
Published papers and articles			
Client forum	As required		SharePoint

Activity	Frequency	Reference	Records
Research and Development Partnerships	As required	HSC Initiatives and Partnerships Plan must be completed for any research and development partnerships.	SharePoint

5.3 Launch

The Project launch process will require progressive implementation of numerous activities which are listed in the Project Launch procedure.

5.4 Design

Sustainability requirements for key design packages will be articulated and communicated with relevant design leads. This involves:

- Initiating a brief meeting and/or ongoing discussions with the design lead of each design package to discuss requirements and identify potential opportunities.
- Facilitate and participate in various multi-disciplinary design workshops (internal and external as required) to identify sustainability opportunities that will allow the Project to achieve sustainability targets and objectives in design, particularly for the key themes of materials, energy, water & innovation.
- Specific sustainability records and documentation will be captured in the Design Reports.

5.5 Site Establishment

The Construction Management Plan and key construction planning document templates (e.g. Construction Procedures and Construction Packages) will include sustainability requirements in construction activities to ensure the Delivery Team and key subcontractors incorporate sustainability principles within their construction methods, plans and documentation. Site Establishment will be managed in accordance with the Project Construction Management Plan.

The Project is to consider sustainable solutions in Site Establishment such as water meters and rainwater tanks, electricity meters, renewable energy sources for electricity, recycled and/or recyclable content and materials for temporary applications.

5.6 Procurement

Sustainability objectives and targets that are relevant to the procurement process, specifically Targets 6 & 8 are aligned with the John Holland Procurement Policy and have been considered and embedded into and managed in accordance with the John Holland Procurement and Subcontract Management Manual. This includes and is not limited to subcontractor and supplier agreements, tender prequalification questionnaires and evaluation processes.

The Sustainability Team will also attend meetings with key subcontractors and suppliers, along with internal Project procurement meetings.

5.7 Delivery

Sustainability must be considered during the construction process at the planning phase through to completion to ensure that requirements are met. Project functional leads will support sustainability requirements (as detailed within this plan) by embedded sustainability in the Construction Management Plan and other relevant Plans as listed in Appendix C.

In addition to this sustainability requirements will be incorporated into Inspection and Test Plans (ITPs) and related ‘as built’ documentation.

5.8 Completion

All Completion related activities will be completed in line with the Project Completions Plan and the John Holland Project Completions Procedure.

5.8.1 Practical Completion

The Project will ensure that the following will be completed as a minimum to ensure sustainability outcomes have been competed are communicated prior to Practical Completion:

- The Environment and Sustainability Completions Checklist (JH-FRM-SST-002-01)
- NGER Operational Control Determination Record (JH-FRM-ENV-002-03) will be completed to transition tracking and collation of data relevant to the *National Greenhouse and Energy Reporting Act 2007* to Hunter Water
- Finalise tracking and collation of data relevant to the NGERS and Sustainability Reporting Guidelines.
- IS ratings documents will be submitted to ISC for verification, and any relevant details communicated to John Holland and Hunter Water.
- Documents to close out contract requirements supplied to Hunter Water via Aconex
- Lessons learnt and communications will be drafted and communicated to relevant stakeholders as per Communication section of this Plan.

At Practical Completion of the Project, this Plan, will be updated to include relevant information including but not limited to, monitoring of sustainability initiatives, documents developed as part of the ISC/ D&AB Rating, Climate Change Risk Assessment, and the Deconstruction Plan.

5.8.2 Final Completion and site demobilisation

5.8.2.1 Demobilise

At the end of the construction activities, the site will be demobilised in accordance with the Project Demobilisation Plan.

5.8.2.2 Sustainability Certification

Following completion of construction, the Project will enter the Performance Guarantee Program (PGP) period. During this phase of the focus will be on achieving the As-Built certifications. This is to be achieved by:

- Facilitating the coordination and collection of all Sustainability documentation to ensure that the target ISC rating is achieved.
- Facilitating the continuation of the commissioning plans and an auditing process to ensure that all sub-contractors understand the requirements of the design intent and the building tuning period to ensure that the operational building performance achieves maximum energy performance results.
- Facilitating the energy management process to ensure that energy targets are assessed against performance results of individual plant and equipment. Ensure that all sub-contractors rectify defects or modify design or operation parameters to ensure that maximum energy efficiency is achieved whilst maintaining tenant comfort conditions.
- Submitting the As-Built documentation to the relevant party for the certified ISC Sustainability rating.

5.9 Document Management

The Project will ensure that all documents and records referred to and required to implement this Plan be able to be identified, tracked, and found in a timely manner and that confidential documents are kept secure and in accordance with relevant confidentiality and privacy legislation.

Documents and Records will be managed in accordance with the Project Document Management Plan and John Holland Procedures and will be stored and managed using the relevant storage/system as shown Table 13 below.

Table 13: Document Management

Document Type	Nature	Storage/ System
Management Plan	Controlled	Aconex/SharePoint
Project Specific IMS Procedures	Controlled	Project Specific IMS
Meetings minutes/correspondence	Records	Aconex/SharePoint
Review and audit, Non-conformances and corrective actions	Records	PPW
Reporting and Case studies	Records	PPW/SharePoint
Rating specific evidence	Records	PPW/Aconex/SharePoint

6 Monitoring

6.1 Monitoring and Inspections

The Project will ensure the requirements for monitoring, review and improvement are met in accordance with the expectations in Table 14 below.

Table 14: Monitoring and Inspections

Expectation	Minimum requirements	Responsibility	Deliverables
Sustainability performance is tracked and reported	NGERS and Sustainability Reporting Data is tracked monthly and reported to John Holland monthly using the HSC Valuation, in accordance with NGER and Sustainability Reporting Guideline. Projects shall review and confirm NGERS and Sustainability Reporting data monthly prior to submission to John Holland	Sustainability Manager Project Leadership	Monthly Reports HSC Valuation Sustainability Tracker
Inspections of on-site sustainability performance	Internal environmental and sustainability inspections of site management are undertaken at least weekly during construction.	Sustainability Manager Project Leadership	Weekly inspection reports
Sustainability Plan Audits/reviews.	Sustainability audits will be conducted at the frequency dictated by the Sustainability Manager. Audits will include environmental, social, and economic aspects. The outcomes of the audit/review will be incorporated into the Sustainability Management plan as part of the continuous improvement process. The audit/review must consider: ▪ Audits undertaken. ▪ Communication, participation and consultation. ▪ The performance of the Project. ▪ Progress towards achievement of the targeted IS rating scheme ▪ The extent to which the objectives and targets have been met. ▪ Changes to legislation. ▪ Actions from previous management reviews and recommendations for improvement.	Sustainability Manager Project Leadership	Quarterly Audit Reports Meeting minutes Updated objectives / targets and SuMP Managed in Soteria
Supplier Performance Audits with Sustainability contractual requirements	Supplier and sub-contractor performance against objectives, targets and deliverables will be reported into the Project and monitored monthly. The performance data shall be internally collated and subsequently reported. Suppliers will be monitored for the duration of their contracts. Poor sustainability performance or non-compliance will be actively managed, and feedback will be provided as identified through monthly reporting.	Sustainability Manager Commercial Manager	Supplier and subcontractor reporting. Construction Program Meetings and forums Supplier and sub-contractor feedback reports. Supplier and subcontractor audit reports (As required)
All audits are undertaken by suitably qualified and experienced personnel	Persons conducting audits and reviews will be suitably experienced and qualified.	Sustainability Manager	Auditor qualifications

6.2 Auditing

All Project Audit including Sustainability-related are included within the Project Audit Schedule and Quality Management Plan. The Project shall retain documented information as evidence of the implementation of the audit programme and the audit results in accordance with Section 5.8.

Discipline-specific Audits and reviews are required as part of the Project's ISv1.2 rating requirements. These requirements are summarised in the Table 15 below:

Table 15: V1.2 Audits

Credit	Requirement	Timing and Responsibility
Man-4 Inspection and Auditing	Sustainability audits of the management system are conducted. At least one external review or audit is conducted during design AND During construction at least four audits are conducted per year where at least one is external.	Quarterly Audits Sustainability Manager
Was-1 Waste Management	Waste monitoring and management has been managed, reviewed or audited by a suitable qualified professional AND Waste handling and disposal/recycling all the way to final destination has been audited at appropriate intervals.	Annually Environment Manager
Sta-3 Effective Communication	The community has been provided with information that was provided in a timely manner, supported community participation, was meaningful and relevant, was accessible This has been verified by internal management /reviews /audits, or community feedback with 65-80% support.	Annually Stakeholder Manager
Sta-4 Addressing Community Concerns	The community believe their concerns have been considered and addressed; and this has been verified by internal management /reviews /audits, or community feedback with 65-80% support.	Annually Stakeholder Manager
Dis-5	The Consultant desktop study should be supported by a nighttime defects inspection which shows no lighting defects (or that such defects are rectified). This inspection should include some spot measurements of horizontal light spill (it is not practical to measure upward light spill).	Construction Manager

6.3 Non-conformances and Corrective Action

Non-conformances and Corrective Actions will be managed and reported in accordance with the Project Quality Management Plan. Sustainability is embedded throughout the Project Management Plan and Quality Management Plans to ensure that Sustainability Objectives and Targets are met. Project personnel are inducted into relevant Project Management Plans including Quality and Sustainability to ensure early identification of non-conformances and implement timely corrective action.

All non-conformances shall be reported, and corrective actions managed and recorded using PPW.

6.4 Reporting

6.4.1 Project Reporting

The Project will provide Sustainability Reporting to Hunter Water and John Holland to comply with contractual requirements and the NGERS and Sustainability Reporting Guideline. The Project's NGERS and Sustainability Data reporting will for part of the John Holland public Sustainability Performance reporting.

The Base Case Proposal for the Project's IS Raing identifies the key elements/components that are material Energy & Carbon, Water, and Materials / Resource Efficiency categories. These materials identified for these categories

are consistent with the Hunter Water and John Holland reporting requirements and therefore the following are identified as material to the reporting requirements the Project:

- Fuel usage >400L/month
- Permanent materials for example concrete (in-situ, ready mix, pre-cast), asphalt, steel (structural and reinforcement), pipework, and aggregates.
- Electricity
- Waste
- Water

The Project Sustainability Reporting requirements are noted below in the Table 16 below.

Table 16: Project Reporting Requirements

Report	Audience	Frequency and Timing
Annual Sustainability Report	Hunter Water Project Management Team John Holland Corporate Team	Annually as per Man-5 credit requirements
NGERS and Sustainability Reporting	John Holland Corporate Team Clean Energy Regulator through NGERS reporting Hunter Water Subcontractor Reporting	Monthly as per system and contractual requirements
Monthly Project Report	Project Senior Management, Hunter Water	Monthly as per contractual requirements

6.4.2 Supplier Reporting

Sustainability objectives and targets are built into Supplier Contracts. Supplier sustainability performance will be monitored against sustainability objectives and targets in performance meetings and monthly reporting required with monthly invoicing in accordance with NGERS and Sustainability Reporting Guideline.

Supplier performance data shall be internally collated and reported internally in line with Section 6.4.1 above.

Suppliers will be monitored in accordance with section 6.1. As required, suppliers will be engaged with and performance reviewed to verify claims made in tender documents, identify areas of key risk (environmental, social, and economic) and identify areas for improvement or opportunity to create sustainability outcomes. Poor sustainability performance or non-compliance will be actively managed, and feedback will be provided as identified.

7 Review

7.1 Review of this Plan

The Sustainability Manager is responsible for preparing and updating this Plan. The Sustainability Manager will control revisions of this Plan, which will be authorised by the Project Director.

This Plan will be reviewed, developed, and updated regularly (6 monthly) by the Sustainability Manager or the responsible document owner, or sooner if required to consider:

- Changes in the progress of the works
- Implications of changes to design or construction, sequence, staging, methodology or resourcing
- Changes to legislation, political climate or external events
- Changes to sustainability practises
- Changes to corporate governance requirements for the project
- Changes in technology
- Complaints or compliments received from stakeholders
- When requested to do so by Hunter Water or a Statutory Authority.

An Annual Sustainability Report will be produced and provided publicly on the Project's Environmental & Sustainability disclosures webpage. This page hosts publicly accessible information for environment and sustainability aspects relating to the Project (Environmental & sustainability disclosures - John Holland).

The timing of this annual review will be based the date of contract award, and the report will provide an update on:

- Progress against the objectives and targets
- Status of Infrastructure Sustainability Rating
- Initiatives, Innovations and Design
- Sustainable Procurement

7.2 Continual Improvement

The John Holland Innovation and Continuous Improvement Process (Figure 7) is a fundamental element of the SMS. It guides decision making relating to sustainability innovations and opportunities across all aspects and stages of the Project to help drive positive environment, social and cost differences in the way we design, construct, maintain and operate assets.

The process helps us achieve this by defining a cyclical process that enables us to continuously improve how we develop solutions by challenging business as usual practices and implementing efficient change processes to generate value for money for our business, clients, and communities and deliver positive customer outcomes.

The process contains five phases, each of which are designed to facilitate collaboration and instil an innovative culture on the project. The phases in Figure 7 below form part of the SMS.

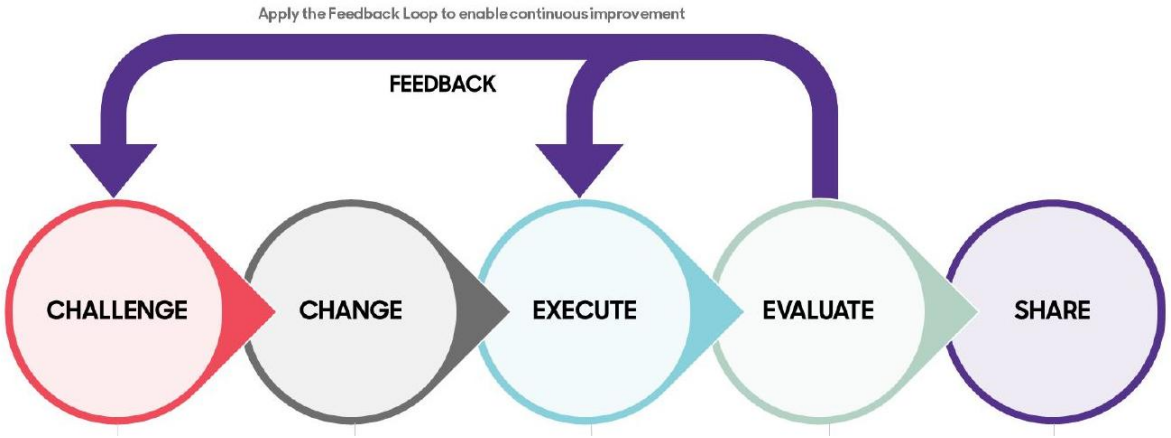


Figure 7: Innovation and Continuous Improvement Process

7.3 Knowledge and Learning

Knowledge and Learning communication is developed and managed with the project communications team and managed in accordance with the Community Communications Strategy and section 5.2 of this Plan:

- Internal knowledge sharing will occur throughout the duration of the project through project newsletters/ updates, training and induction and formal knowledge sharing sessions.
- External knowledge sharing will be undertaken by sharing lessons learned and achievements via John Holland and relevant key external stakeholders.

8 Appendices

Appendix A Relevant Polices and Plans

JHG Sustainability Policy

JOHN HOLLAND

SUSTAINABILITY POLICY

UP FOR THE CHALLENGE OF TRANSFORMING LIVES

OUR COMMITMENT

We value the environment and communities in which we work.

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.

OUR APPROACH

John Holland's core values drive our everyday interactions and guide our approach to sustainability.

Caring

We care deeply about what we do and how it affects lives, now and for future generations, by:

- driving a strong culture that balances social, environmental and economic needs and creates positive sustainability experiences for our people, customers and stakeholders
- integrating environmentally and socially responsible sourcing into our procurement processes, and seeking opportunities to collaborate with our supply chain to drive innovation and create mutual value
- nurturing talent diversity and wellbeing across our organisation, with the aim of creating a safe and inclusive environment that fosters high performance

Empowering

We gain trust through action by:

- Empowering our people, partners and subcontractors to drive social betterment through honest, ethical behaviour
- Participating and collaborating widely to embed sustainability principles across the broader industry holding each other to account, ensuring we each understand our contributions and the role they play in supporting sustainable outcomes
- Providing information that is transparent and accurate

Imaginative

We push the boundaries by:

- Continuously learning and improving–reviewing our performance, capturing and sharing lessons learnt and celebrating our successes
- Exploring and introducing new technologies, products and approaches that support our sustainability goals
- Emphasising sustainable solutions in our decision-making at every level of the business, and through all stages of the project lifecycle

Future-focused

We're in it for the long, long term by:

- Exceeding customer requirements and positioning our business to proactively respond to changing industry expectations
- Establishing and maintaining an effective management system to reduce risk, drive sustainable outcomes and identify opportunities for improvement
- Ensuring we leave a positive legacy for people and planet by considering our footprint and relationships in everything we do
- Adapting and embracing change and championing innovation, with the aim of driving continual improvement and going beyond business as usual

Glenn Palin
Chief Executive Officer

November 2024

JOHN HOLLAND

ENVIRONMENT POLICY

UP FOR THE CHALLENGE OF TRANSFORMING LIVES

OUR COMMITMENT

To value the natural environment and communities in which we work.

Our goal across all business activities is to use resources efficiently, minimise environmental impacts and prevent pollution, and enhance and protect the environment and our heritage.

OUR APPROACH

John Holland's four values are the platform for our everyday interactions and guide our approach to the environment.

Caring

We care deeply about what we do and how it impacts the environment now and for the future by:

- Driving a strong culture of respect for the environment across our business, and with our industry partners
- Prioritising the environment and resource efficiency in our decision-making throughout the project lifecycle - planning, design, procurement and delivery
- Providing best practice training and education to our people to build awareness and capability to protect the environment and respect the communities in which we work and live.

Empowering

We gain trust through action by:

- Empowering our people, partners and subcontractors to speak up about how we can better protect and enhance the environment
- Encouraging participation and collaboration with all our people and stakeholders to achieve positive environmental performance and outcomes
- Driving accountability by ensuring everyone is responsible for valuing and protecting the environment

Imaginative

We push the boundaries by:

- Focusing on continual learning and improvement - reviewing performance, capturing and sharing lessons learnt, and celebrating successes
- Exploring and introducing new technologies and approaches that minimise impacts on the environment and provide positive outcomes for the community
- Having a transparent risk management process that helps us continuously identify opportunities to improve working with our clients and other stakeholders to help them exceed their objectives and obligations

Future-focused

We're in it for the long, long term by:

- Exceeding our legislative, customer and other mandatory requirements
- Maintaining and improving an effective management system
- Ensuring our work leaves a positive legacy for the communities we serve and the environment we operate in

Glenn Palin
Chief Executive Officer

November 2024

Policy

JOHN HOLLAND

Procurement

Our commitment

John Holland is committed to efficient, effective, ethical and sustainable procurement.

Our approach

John Holland will strive to maximise value for the company, its shareholders, clients and the communities we operate in through best in class ethical and sustainable procurement practices.

Procurement in practice

Without suppliers John Holland cannot meet shareholder, client or community expectations. The way we procure and manage the supply chain has a significant influence on profitability, reputation, stakeholders, communities and our success in meeting our sustainability objectives and expectations.

John Holland will and expects all our employees, contractors and business partners to:

- Uphold ethical business practices, comply with legislation, regulations, standards, codes, licences and comply with applicable codes of business conduct, policies and procedures including those of John Holland.
- Understand the risks and complexities of the services and products we procure so that we can recognise and respond to issues appropriately to minimise risks;
- Develop, promote, and maintain systematic, integrated, and competitive selection, approval, and review processes to manage all critical and strategic suppliers.
- Continuously improve supplier relationships and develop a resilient supply chain.
- Ensure procurement decisions are aligned with the business strategy and plans and take into consideration total lifecycle cost and the triple bottom line being the economic, environmental, and social impacts.
- Recognise, evaluate and implement measures to minimise to the greatest extent possible the risks associated with modern slavery within our operations and supply chain.

Glenn Palin
Chief Executive Officer
John Holland Group Pty Ltd
November 2024

Caring
Empowering
Imaginative
Future-focused

JOHN HOLLAND

CLIMATE POLICY

UP FOR THE CHALLENGE OF TRANSFORMING LIVES

OUR COMMITMENT

We recognise that what we do today has an impact on future generations. In line with our purpose to transform lives, we are committed to understanding and mitigating climate change impacts across all areas and activities of our business. To that end, we will develop a pathway to Net Zero emissions and implement carbon reduction initiatives that are aligned with the goals of the Paris Agreement and 1.5-degree global target, and at the same time meet the expectations of our employees, customers and the communities in which we operate.

OUR APPROACH

John Holland's four values of caring, empowering, imaginative and future-focused underpin everything we do, including our approach to climate.

Caring

We care deeply about what we do and how it affects the climate, now and for the future by:

- Driving a strong culture across all our business operations and the industry at large to respect people and the climate
- Having a transparent risk management process that helps us to identify opportunities and improvements to adapt to and mitigate climate change
- Providing best practice training and education for our people to build awareness and capability to manage climate risk

Empowering

We gain trust through action by:

- Encouraging business and supply chain participation, collaboration, and research and development to reduce emissions and address climate change risk
- Empowering our people and partners to work together to reduce our climate change impacts
- Driving accountability by defining climate governance, ensuring everyone is responsible for contributing to reducing our carbon footprint
- Reporting and disclosure in relation to climate

Imaginative

We push the boundaries by:

- Prioritising innovative decision making across the business to address climate change risk
- Exploring and embedding new and emerging leading practice technologies to transform to a low emission business and industry
- Focusing on continual learning and improvement by reviewing carbon emissions performance, capturing and sharing lessons learnt and celebrating successes

Future-focused

We're in it for the long, long term by:

- Establishing and maintaining an effective management system and net-zero pathway using the latest climate science
- Meeting customer, legislative and other mandatory climate requirements
- Leaving a positive legacy for communities and environments in which we work and operate, that safeguards our climate for future generations

Glenn Palin
Chief Executive Officer
November 2024

HWC Environment Policy – refer to HW2012-738/6.034 | Version: 5 | Date: September 2023

Appendix B Interactions with other Project Plans and documents

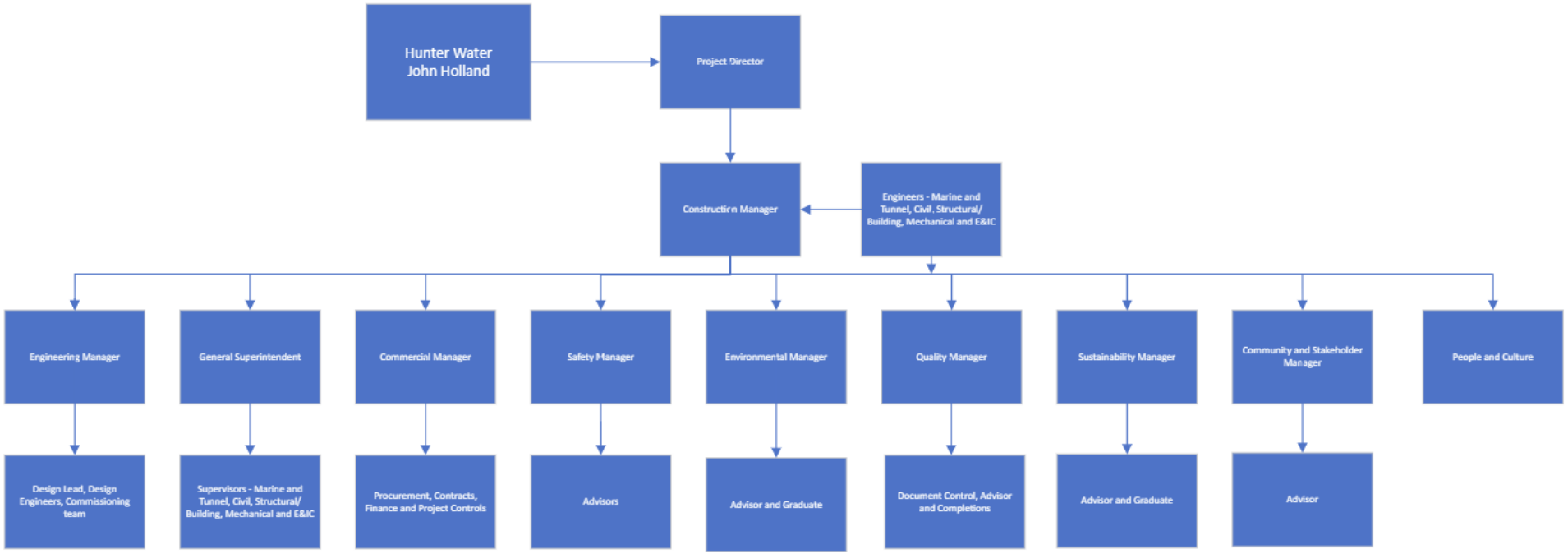
Document Reference	Documentation Description
CS1135-WT-BEL-PM-PLN-0001	Project Management Plan
CS1135-WT-BEL-AL-PLN-0003	Design Management Plan
CS1135-WT-BEL-SA-PLN-0001	Workplace Health & Safety (WHS) Management Plan
CS1135-WT-BEL-QA-PLN-0001	Quality Management Plan
CS1135-WT-BEL-HR-PLN-0002	Training Management Plan
CS1135-WT-BEL-EN-PLN-0029	Construction Traffic and Pedestrian Management Sub Plan
CS1135-WT-BEL-EN-PLN-0001	Construction Environment Management Plan
CS1135-WT-BEL-CY-PLN-0001	Community Communication Strategy
CS1135-WT-BEL-SA-PLN-0010	Risk Management Sub-Plan
CS1135-WT-BEL-SA-PLN-0005	Plant Operation & Shutdown Plan
CS1135-WT-BEL-EN-PLN-0002	Noise and Vibration Management Sub-Plan
CS1135-WT-BEL-EN-PLN-0021	Construction Soil and Surface Water Management Sub-Plan
CS1135-WT-BEL-EN-PLN-0017	Contaminated Soil Management Plan
CS1135-WT-BEL-EN-PLN-0018	Acid Sulphate Soils Management Plan
CS1135-WT-BEL-EN-PLN-0019	Erosion and Sediment Control Plan
CS1135-WT-BEL-EN-PLN-0022	Construction Waste Management Sub-Plan
CS1135-WT-BEL-EN-PLN-0027	Construction Landscape Management Plan
CS1135-WT-BEL-EN-PLN-0014	Construction Biodiversity Management Sub-Plan
CS1135-DE-BEL-EN-PLN-0001	Aboriginal Cultural Heritage Management Plan
CS1135-WT-BEL-CO-PLN-0002	Construction Groundwater Management Plan
CS1135-WT-BEL-AL-RPT-0007	Durability Report
CS1135-WT-BEL-EN-PLN-0028	Design Energy Efficiency and GHG Emissions Sub Plan

Appendix C Credit Governance and Accountability

ISC Theme	Credit name Abv.	Credit name	Integration with Governing Management Document	Document Number	SLT responsibility
Management and Governance	Man-1	Sustainability leadership and commitment	JH Sustainability Policy	JHG-POL-GEN-012	Project Director
	Man-2	Risk and opportunity Management	Project Mgt Plan	CS1135-WT-BEL-PM-PLN-0001	Construction Mgr
	Man-3	Organisational structure, roles and responsibilities	Sustainability Management Plan	CS1135-WT-BEL-EN-PLN-0028	Project Director
	Man-4	Inspection and auditing	Sustainability Management Plan	CS1135-WT-BEL-EN-PLN-0028	Sustainability Mgr
	Man-5	Reporting and review	Sustainability Management Plan	CS1135-WT-BEL-EN-PLN-0028	Sustainability Mgr
	Man-6	Knowledge sharing	Sustainability Management Plan	CS1135-WT-BEL-EN-PLN-0028	Sustainability Mgr
	Man-7	Decision-making	Design Management Plan	CS1135-WT-BEL-AL-PLN-0003	Engineering Mgr
	Pro-1	Commitment to sustainable procurement	Procurement Policy	JHG-POL-GEN-011	Commercial Mgr
	Pro-2	Identification of suppliers	Procurement and Subcontractor Manual	JH-MAN-PSM-003	Commercial Mgr
	Pro-3	Supplier evaluation and contract award	Procurement and Subcontractor Manual	JH-MAN-PSM-003	Commercial Mgr
	Pro-4	Managing supplier performance	Procurement and Subcontractor Manual	JH-MAN-PSM-003	Commercial Mgr
	Cli-1	Climate change risk assessment	Climate Change Risk Assessment	CS1135-WT-BEL-AL-RIS-0001	Engineering Mgr
	Cli-2	Adaptation options	Design Report	CS1135-WT-BEL-AL-RPT-0003	Engineering Mgr
Using Resources	Ene-1	Energy and carbon monitoring and reduction	Sustainability Management Plan	CS1135-WT-BEL-EN-PLN-0028	Sustainability Mgr
	Ene-2	Renewable Energy	Design Energy Efficiency and GHG Emissions Sub Plan	CS1135-WT-BEL-EN-PLN-0028	Sustainability Mgr
	Wat-1	Water use monitoring and reduction	TBC – TC from ISC		Environmental Mgr
	Wat-2	Replace potable water	Design Report	CS1135-WT-BEL-AL-RPT-0003	Engineering Mgr
	Mat-1	Materials footprint measurement and reduction	Design Report/ Material Calculator /GHG model	CS1135-WT-BEL-AL-RPT-0003	Engineering Mgr
	Mat-2	Environmentally labelled products and supply chains	Quality Management Plan	CS1135-WT-BEL-QA-PLN-0001	Sustainability Mgr
Emissions, Pollution and Waste	Dis-1	Receiving Water Quality	Construction Environmental Management Plan	CS1135-WT-BEL-EN-PLN-0001	Environmental Mgr
	Dis-2	Noise	Construction Environmental Management Plan	CS1135-WT-BEL-EN-PLN-0001	Environmental Mgr
	Dis-3	Vibration	Construction Environmental Management Plan	CS1135-WT-BEL-EN-PLN-0001	Environmental Mgr

ISC Theme	Credit name Abv.	Credit name	Integration with Governing Management Document	Document Number	SLT responsibility
	Dis-4	Air Quality	Construction Environmental Management Plan	CS1135-WT-BEL-EN-PLN-0001	Environmental Mgr
	Dis-5	Light Pollution	Design Management Plan	CS1135-WT-BEL-AL-PLN-0003	Engineering Mgr
	Lan-1	Previous land use	Design Report	CS1135-WT-BEL-AL-RPT-0003	Sustainability Mgr
	Lan-2	Conservation of onsite resources	Design Report	CS1135-WT-BEL-AL-RPT-0003	Sustainability Mgr
	Lan-3	Contamination and remediation	Construction Environmental Management Plan	CS1135-WT-BEL-EN-PLN-0001	Environmental Mgr
	Lan-4	Flooding design	TBC- Scoped Out		
	Was-1	Waste management	Construction Environmental Management Plan	CS1135-WT-BEL-EN-PLN-0001	Environmental Mgr
	Was-2	Diversion from landfill	Construction Environmental Management Plan	CS1135-WT-BEL-EN-PLN-0001	Environmental Mgr
	Was-3	Deconstruction/ Disassembly/ Adaptability	Design Report	CS1135-WT-BEL-AL-RPT-0003	Sustainability Mgr
Ecology	Eco-1	Ecological Value	Design Ecological Assessment	TBC	Sustainability Mgr
	Eco-2	Habitat connectivity	Design Ecological Assessment	TBC	Sustainability Mgr
People and Place	Hea-1	Community health and well-being			
	Hea-2	Crime prevention	TBC – Scoped out	TBC	Sustainability Mgr
	Her-1	Heritage assessment and management	Construction Environmental Management Plan	CS1135-WT-BEL-EN-PLN-0001	Environmental Mgr
	Her-2	Monitoring and management of heritage	Construction Environmental Management Plan	CS1135-WT-BEL-EN-PLN-0001	Environmental Mgr
	Sta-1	Stakeholder engagement strategy	Community Communication Strategy	CS1135-WT-BEL-CY-PLN-0001	Communications and Stakeholder Engagement Mgr
	Sta-2	Level of engagement	Community Communication Strategy	CS1135-WT-BEL-CY-PLN-0001	Communications and Stakeholder Engagement Mgr
	Sta-3	Effective communication	Community Communication Strategy	CS1135-WT-BEL-CY-PLN-0001	Communications and Stakeholder Engagement Mgr
	Sta-4	Addressing community concerns	Community Communication Strategy	CS1135-WT-BEL-CY-PLN-0001	Communications and Stakeholder Engagement Mgr
	Urb-1	Urban design	TBC – Scoped Out		Sustainability Mgr
	Urb-2	Implementation	TBC – Scoped Out		Sustainability Mgr
Innovation	Inn-1	Innovation	NA	NA	Sustainability Mgr

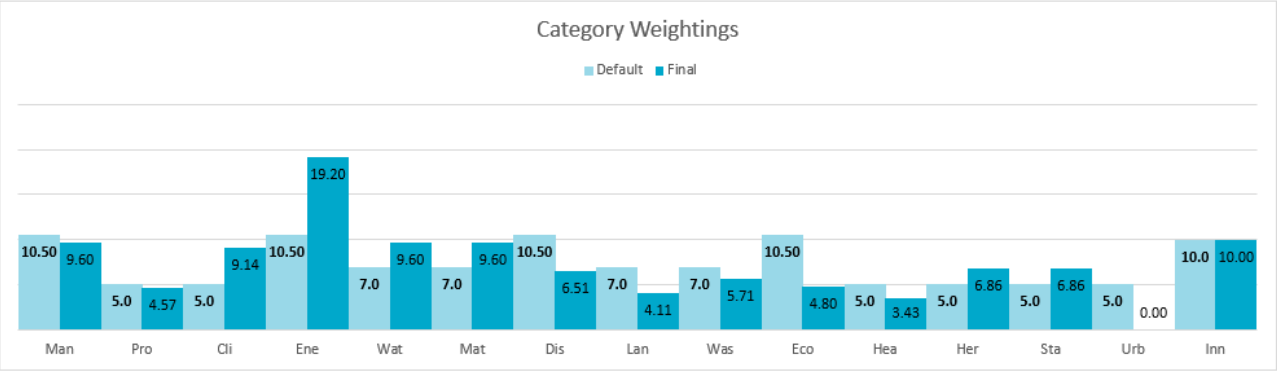
Appendix D Project Organisational Chart

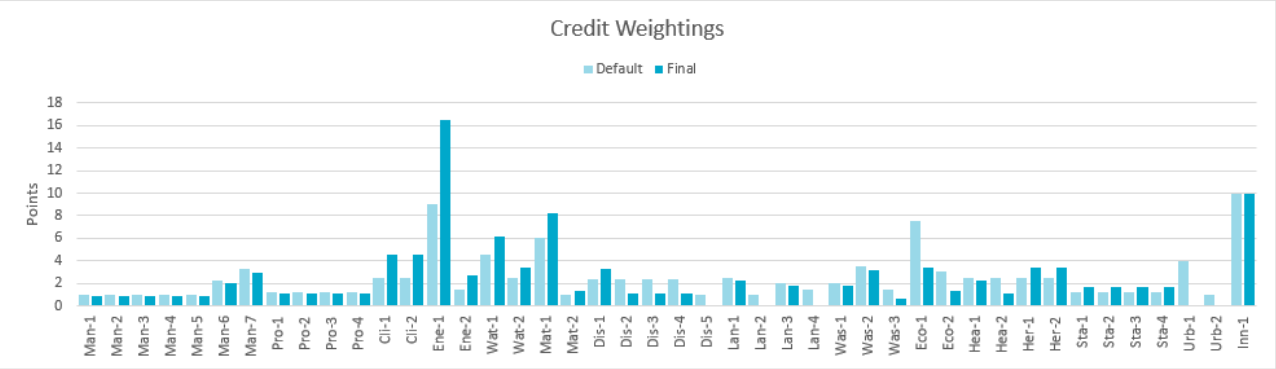


Appendix E Weightings Assessment

DRAFT Weightings Chart – 31/07/2024

Infrastructure Sustainability Weightings Assessment
Charts





Appendix F IS Rating Scorecard and Pathway

IS Rating Scorecard

Appendix G IT Systems

Project Pack Web – PPW

PPW is a web-based project management system that is used throughout the project life cycle consisting of various applications / modules performing specific functions.

PPW is the system used to manage:

- Raising of Purchase Requisitions
- Assigning Hold Points (HP) / Witness Points (WP)
- Assigning attendees for Observations
- Inspections and Audits
- Raising Non-Conformances (NCRs)

Soteria

Soteria is a web-based Health, Safety, Environment and Sustainability (HSES) platform used to manage HSES processes and collect / collate data for reporting and trend analysis.

Soteria is the system used to manage:

- Incidents
- Hazards
- Actions
- Alcohol and Other Drug (AOD) Testing
- HSES Audits
- Inspections
- GMR Assessments
- End of month
- Environmental Permits
- Monitoring (Noise, Vibration, Water, Air, Soil)
- HSES Obligations