NORTH WEST TREATMENT HUB
GROWTH PROGRAM

# Sustainability Management Plan

NWHA-PW-MPL-ENV-NWH-0005 **Rev 03**

# Revisions and Distributions

## Distribution

There are no restrictions on the distribution or circulation of this Sustainability Management Plan within NWHA.

| | |
|---|---|
| Authorised by | Matt Ross |
| Date | 13 May 2024 |

## Revisions

Draft issues of this document shall be identified as Revision 01, 02, 03 etc. Upon initial issue (generally Contract Award) this shall be changed to a sequential number commencing at Revision A. Revision numbers shall commence at Rev. A, B etc.

| Date | Revision no. | Remarks | Prepared by | Reviewed by | Approved by | Signature |
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# Definitions and Abbreviations

Definitions and abbreviations to be applied to the Sustainability Management Plan are listed below.

| Terms/Abbreviations | Definitions |
|---|---|
| AIMT | Alliance Integrated Management Team |
| AMS | Activity Method Statement |
| CHWRRF | Castle Hill Water Resource Recovery Facility |
| CRG | Community Reference Group |
| CRI | Credit Interpretation Request |
| EPA | Environment Protection Agency |
| EPL | Environmental Protection Licence |
| EWMS | Environmental Work Method Statement |
| IS | Infrastructure Sustainability |
| ISAP | Infrastructure Sustainability Accredited Professional |
| ISC | Infrastructure Sustainability Council |
| ISQP | Independent Suitably Qualified Professional |
| ITT | Invitation To Tender |
| JH / JHG | John Holland Pty Ltd / John Holland Group |
| KBR | Kellogg, Brown & Root |
| KPI | Key Performance Indicator |
| MCA | Multi-Criteria Analysis |
| NSW | New South Wales |
| NWHA | North West Hub Alliance |
| NWTH | North West Treatment Hub |
| NWTHGP | North West Treatment Hub Growth Program |
| NWTHGP SS | North West Treatment Hub Growth Program Sustainability Strategy |
| PPW | Project Pack Web |
| UN SDGs | United Nations Sustainable Development Goals |
| REF | Review of Environmental Factors |
| RHWRRF | Rouse Hill Water Resource Recovery Facility |
| RWRRF | Riverstone Water Resource Recovery Facility |
| SRG | Stakeholder Reference Group |
| SuID | Sustainability in Design |
| SuMP | Sustainability Management Plan (this Plan) |
| SQP | Suitably Qualified Professional |
| SWC | Sydney Water Corporation |
| SWMS | Safe Work Method Statement |
| TC | Technical Clarification |

| Terms/Abbreviations | Definitions |
|---|---|
| UN SDGs | UN Sustainable Development Goals |
| Workbench | Workbench is the Alliance's Sharepoint site |
| WRP | Water Recycling Plant |
| WWRF | Water Resource Recovery Facility |
| WWTP | Wastewater Treatment Plant |

# 1. Introduction

## 1.1. Project Background

Sydney Water provides water, wastewater, recycled water and some stormwater services to over 5 million people in the greater Sydney region and aims to protect public health, the environment and be a successful business while operating under the *Sydney Water Act 1994*.

Sydney's northwest is experiencing rapid growth and is expected to significantly increase in population, leading to the need for essential upgrades to the existing infrastructure to ensure service capabilities for future growth are met. In addition to growth demands, new Environment Protection Licence (EPL) limits come into effect from 1 July 2024, which includes new nutrient load and concentration limits set in NSW EPA's Hawkesbury Nepean Nutrient Framework (NSW EPA, 2019). These new limits aim to minimise the risk of algal blooms and aquatic weed outbreaks from treatment plant discharges that will service the increased development in Western Sydney. Upgrades will contribute to compliance with these new limits and overs public and environmental health.

The North West Treatment Hub Growth Program (NWTH; Figure 1) is made up of the Castle Hill Water Resource Recovery Facility (CHWRRF), Rouse Hill Water Resource Recovery Facility (RHWRRF) and Riverstone Water Resource Recovery Facility (RWRRF). Combined, they provide wastewater servicing to Sydney's northwest. Across the three plants, treatment capacity will be exceeded by 2026, which would lead to the inability to provide adequate wastewater servicing to new growth within the surrounding areas.

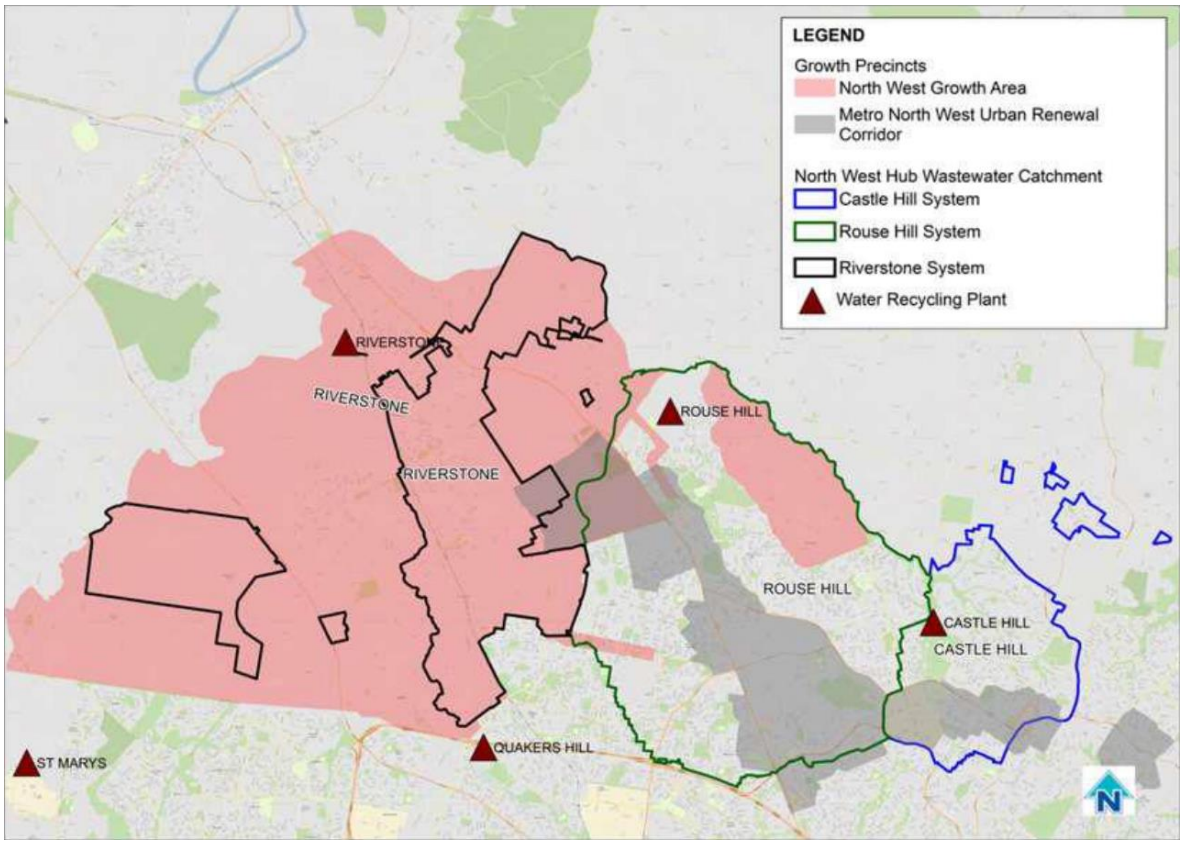



*Figure 1: North West Treatment Hub services catchments*

The NWTH Growth Program will deliver a series of upgrades to be achieved via a number of Budgets, spanning over a period of 10-15 years, to support population growth in line with the NSW Government's long term population forecasts and Sydney Water's operating licence obligations. The upgrades will aim to provide a more efficient and integrated wastewater system to both cater for growth and to keep waterways clean.

This Sustainability Management Plan applies only to Budget 1 of the NWTH Growth Program (hereinafter referred to as 'The Project'). Budget 1 also defines the IS rating scope and boundary which includes upgrades to Riverstone WRRF and Rouse Hill WRRF with Castle Hill excluded from Budget 1 scope of works.

Upgrades completed as part of future budgets (Figure 1) are outside of the scope of the Project.

The North West Hub Alliance (NWHA) is comprised of Sydney Water, John Holland, KBR and Stantec, and was formed to deliver the design and construction of the Project.

Key objectives for the Project include:

- Responding to growth by increasing treatment capacity at the two facilities, while delivering the program of work in a cost-effective manner
- Protecting the environments, including the effluent receiving waterways while meeting current and anticipated future environmental protection licence (EPL)
- Positively contributing to Sydney Water's objectives through the introduction of their Carbon Zero Plan and Circular Economy Blueprint
- Expanding the recycled water system to meet catchment needs.

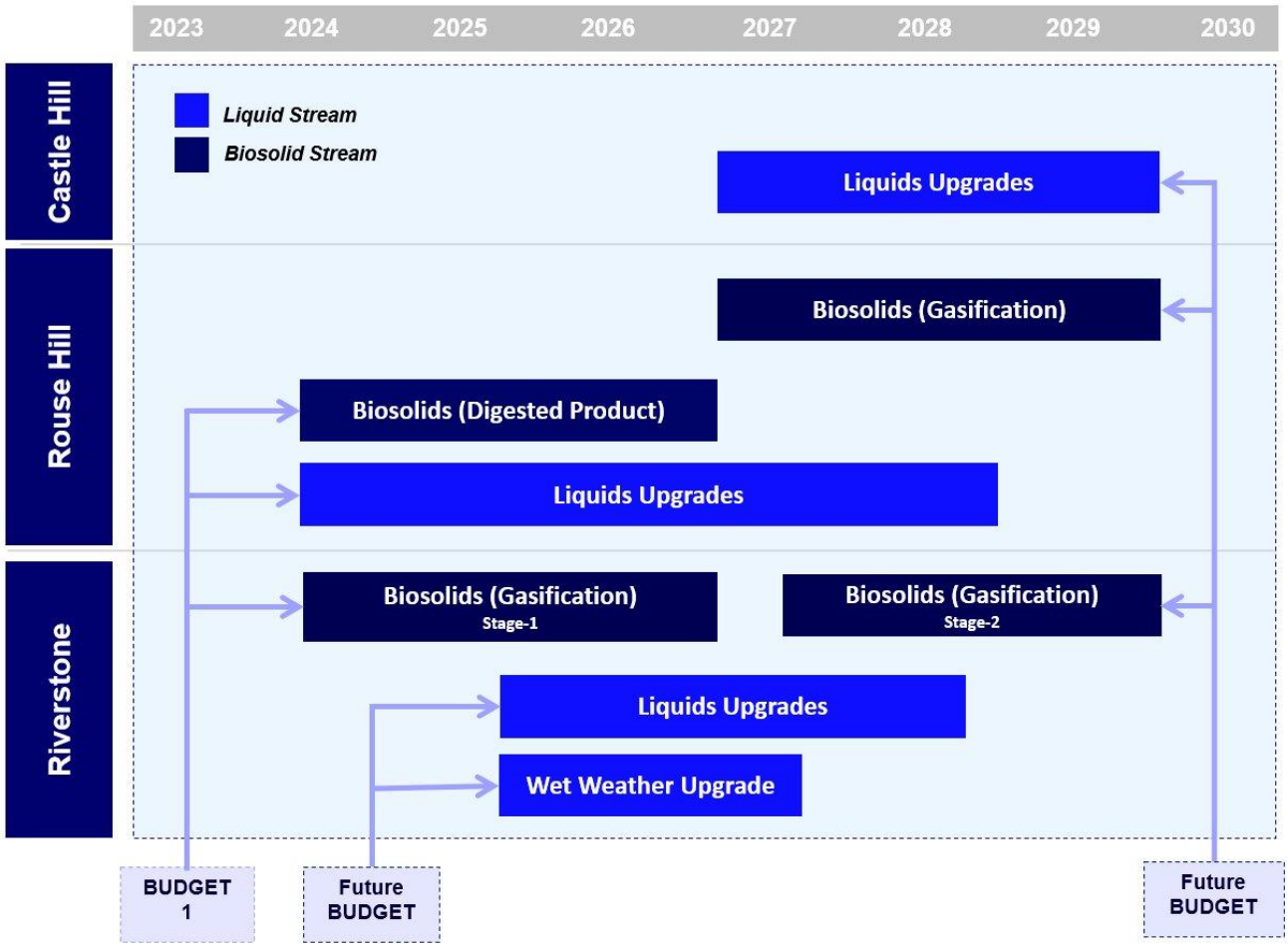



*Figure 1: North West Treatment Hub Growth Program current progressive budgets*

## 1.2. Project Description

For Budget 1, the works are structured into two main packages:

- Package 1 – Riverstone WRRF Biosolids and Liquids upgrades;
- Package 2 – Rouse Hill WRRF Liquid and Biosolids Amplification Works.

### 1.2.1. Riverstone WRRF

The Riverstone WRRF is a tertiary treatment plant first commissioned in 1986, servicing the suburbs of Riverstone and Schofields. It has been recently upgraded to accommodate the growth in the region, resulting in its current capacity of 19 ML/d.

With the forecast growth to the design horizon of 2056 and tightening nutrient effluent targets across the Hawkesbury Nepean wastewater treatment assets, amplification is required to cater for the future flows and loads.

The Budget 1 works are designed to increase Riverstone's biosolids treatment facilities, and include:

- New dryer and carboniser system including odour control and gas scrubbing facilities, necessary fire water services to drying and carbonise independent of the existing firewater network, and other ancillary process units as required;
- Augmentation of the existing thickening, dewatering, and outloading facilities to facilitate thermal treatment;
- HV and LV augmentation and upgrades including new switchrooms;
- SCADA and PLC control system augmentation and upgrades to incorporate new treatment plant process units;
- Odour containment and treatment from new odorous sources, including augmentation of the existing Odour Control Facility (OCF) ducting to accommodate new sources from the Package 1 Works;
- Site Water (potable water, industrial water, reclaimed effluent, and fire water) and Site Services (compressed air, foul water system, first flush system) augmentation and upgrade to suit the augmented Riverstone WWTP;
- Augmentation and amplification of chemical storage and dosing facilities to suit the augmented Riverstone WWTP;
- Augmenting and replacement of the existing inlet screens;
- A new de-gritter complete with ancillaries as required.

### 1.2.2. Rouse Hill WRRF

Rouse Hill Water Resource Recovery Facility (RHWRRF) is a tertiary treatment plant servicing the suburbs of Kellyville, Parklea, Rouse Hill, Riverstone, Box Hill, and Marsden Park, and is one of Sydney Water's flagship water recycling facilities. Rouse Hill WRP has a current capacity of 26 ML/d ADWF, servicing approximately 131,800 EP, and supplying 32,000 properties with 2 billion litres of recycled water every year for non-drinking purposes.

The recycled water demand ranges from approximately 6 ML/d during winter, up to daily peaks of 16 ML/d, which typically occur in summer. Potable water top-up is used when the production of recycled water cannot keep up with demand. Treated wastewater that is surplus to recycled water production is discharged into Second Ponds Creek.

The Budget 1 works are designed to increase RHWRRF's liquid stream treatment capacities, and include:

- The amplification and augmentation of the secondary treatment process, including all necessary ancillaries, to meet the Performance requirements as set out in the Performance & Technical Specification – Package 2 Works RHWRRF;
- Odour containment and treatment from new odorous sources, to meet the requirements set out in the Performance and Technical Specification – Package 2 Works RHWRRF;
- Augmentation of the disinfection facilities to meet EPL obligations for creek discharge given the increased flows to the plant, including:
    - upgrade the bypass chlorine dosing chamber feed pipes to the wet weather CCTs;
    - upgrade (duplicate) the CCTs pipeline to the outlet structure;
    - replacement of Wet Weather CCTs chemical dosing pumps.
- Conversion of the existing IDALs to four-stage nutrient removal bioreactors, with a new Membrane Bioreactor (MBR) solids separation system, including all necessary ancillaries:
    - Decommission and removal of the existing mechanical and electrical equipment;

  - Modification of the existing tanks as required;
  - Installation of the new mechanical, structural and electrical equipment as required;
  - New blower building;
  - Decommissioning of the existing Blower Building and repurposing to a storage room;
  - Modification of the existing inlet distribution chamber, as required;
- Construction of the feed pipeline from the Fine Screens (by Others) to Bioreactor (current IDAL distribution chamber);
- Construction of a new MBR:
  - Demolition of the existing Oil Storage Building;
  - New secondary anoxic tank, membrane tanks, permeate tank, MRAS flow splitter, permeate pumps, and other ancillaries required for new MBR;
  - New Blower Building;
  - New switchroom including two HV transformers to power it;
  - New polymer dosing system;
  - Modification of the existing chemical dosing facility with new dosing pump skids for sodium hypochlorite, sodium hydroxide and sodium bisulphite.
- HV and LV system upgrades, including switchrooms, switchboards, transformers, and feeders to support plant augmentation;
- Modification of the existing Area 5 switchroom to support plant augmentation. This includes renewals of necessary electrical infrastructure to meet regulatory requirements:
  - Renewal of HV and LV switchboards to support the plant augmentation;
  - Renewal of transformers support the plant augmentation;
  - Decommission and removal of the equipment made redundant;
  - Upgrade of the HV switchroom to achieve a 2-hour fire rating for the ceiling, exposed metal columns and doors;
  - Upgrade of the LV switchroom to achieve a 2-hour fire rating for the exposed metal columns and all doors. Upgrade of the existing ceiling has been excluded;
  - Installation of a fire detection system.
- SCADA and PLC control system augmentation and upgrades to incorporate new treatment plant process units;
- Site Water (potable water, industrial water, reclaimed effluent, and fire water) and Site Services (compressed air, foul water system, first flush system) augmentation and upgrade to suit the augmented RHWRRF;
- Augmentation and amplification of chemical storage and dosing facilities to suit the augmented RHWRRF;
- New biosolids dewatering and outloading facility;
- New RDT polymer storage and dosing facility;
- Augmentation of the existing UV facilities, including all necessary ancillaries;
- Augmentation of the existing Super Chlorination Contact Tanks (SCCTs) inlet and outlet pipes.

## 1.3. Project Milestones

The overall duration of design and construction for the Project is presented in Table 1.

*Table 1: Project design and construction duration*

| Location | Design | Construction |
|---|---|---|
| Riverstone WWTP | December 2023 – June 2025 | July 2024 – July 2026 |
| Rouse Hill WRP | December 2023 – June 2025 | July 2024 – February 2029 |

The Project will develop a sustainability rating under the Infrastructure Sustainability Council (ISC) infrastructure v2.1 rating tool. The Project shall achieve a minimum Infrastructure Sustainability (IS) “Silver” ‘Design’ and ‘As built’ rating.

See Table 15 for the IS rating milestones and dates.

Appendix B outlines the main components of the IS rating process. Sections 2 and 4 of this SuMP outline the general approach and sustainability management measures to be undertaken by the Project. Section 5 of this SuMP illustrates the specific targeted pathway and credits to be addressed to ensure the required “Silver” Design and As-Built rating is achieved.

## 1.4. Purpose of the Plan

Sustainability is a priority for Sydney Water and the NWTH Growth Program. The Alliance is committed to achieving new zero and sustainability through Infrastructure Sustainability Council (ISC) rating with consideration to our people, the community, our clients, our supply chain, and the environment when making decisions. This Sustainability Management Plan (SuMP) details the processes and systems that will be used to deliver sustainability outcomes in alignment with Sydney Water’s sustainability objectives and targets. It provides the detail on how sustainability is embedded in the Project, with integration across multiple disciplines and functions including Workforce, Commercial, Design, Procurement (including Social Inclusion), Construction, Health, Safety and Wellbeing, Environment and Sustainability, and Community and Stakeholder Management.

This SuMP explains how the project will deliver on the sustainability objectives and commitments of the The Project. The intended outcomes of this SuMP include:

- Identify processes for the management of sustainability risks and opportunities
- Determining the Project’s sustainability deliverables (including objectives and targets)
- Measuring and reporting on sustainability performance
- Determining the Project roles and responsibilities
- Compliance with all Sydney Water contractual requirements as outlined in Table 2 and Table 3.

## 1.5. Structure of the Plan

The SuMP is one of the governing plans in the Project Management System. It is a governing plan and the sustainability principles extend across The Project, from detailed design to construction and commissioning. These principles are embedded across all management disciplines, ensuring that the decision-making process considers whole-of-life, environmental, social, economic costs and benefits over the life of the Project.

The SuMP and other Management Plans provide a complete and coherent system of requirements and processes to ensure that the project requirements are met. Documents that support the project management plans, include a suite of more detailed and specific documents such as system procedures, system instructions, technical procedures, inspection and test plans, work method statements and standard forms and checklists.

In addition to the Project Management Plan, other Project Plans that interface with the SuMP are mapped within Section 4.1 of this document.

# 2. Sustainability Requirements, Objectives and Targets

This section outlines the sustainability requirements, objectives and targets for the Project, including Deed requirements, IS required sustainability objectives, and SMART targets.

## 2.1. Sustainability-related Deed Requirements

The following tables outline the Deed requirements relevant to sustainability.

*Table 2: Deed requirements – Key Performance Indicator (KPI) Measures*

| Document Reference | ID | KPI Measure |
|---|---|---|
| Alliance Contract KPI B2.1 | 1 | Target pathway – a conservative pathway to achieve a 'Silver' rating (40 points), including Credit criteria most applicable to wastewater and Sydney Water processes, and focused to drive sustainability outcomes aligned with Sydney Water sustainability objectives |
| Alliance Contract KPI B2.1 | 2 | Stretch pathway – a more ambitious pathway for a 'Gold' rating that includes levels and points which are more challenging and will incur more change and potential cost to project planning, tender and delivery |

*Table 3: Deed requirements – KPI Modifiers*

| Document Reference | ID | KPI Modifiers | Relevant IS Credit/level |
|---|---|---|---|
| Alliance Contract KPI B2.1 Sustainability | a)* | Achieve circular economy outcomes through delivering a Resource Efficiency Strategy and Plan in alignment ISv2.1 Rso-1. This Plan must reference the Sydney Water led and developed Biochar Reuse Strategy. | Rso-1 L3 |
| Alliance Contract KPI B2.1 Sustainability | b)* | Reduce construction Scope 1 and 2 carbon emissions, and embodied carbon emissions associated with materials by 10-30% when compared to a verified IS base case. | Ene-1 D/AB L1 to L3 |
| Alliance Contract KPI B2.1 Sustainability | c)* | Achieve the following waste avoidance and diversion targets:<br>> 85% avoided or diverted of clean/inert excavation spoil<br>> 50 - 60% avoided or diverted of office waste<br>> 70% avoided or diverted of other inert resource outputs. | Rso-4 D/AB L2 |
| *If target a) or b) or c) are not met the KPI score will be zero (Fail score). | | | |
| Alliance Contract KPI B2.1 Sustainability | d) | Achieve =>5 points for Innovation Credit | Inn-1 L1.5 (equivalent to 5 Innovation points) |
| Alliance Contract KPI B2.1 Sustainability | e) | Procure products with ISC approved sustainability labels for 10% of total materials by cost | Rso-7 L0.67 (equivalent to 10% of products with labels) |
| | | | |
| Alliance Contract KPI B1.1 Safety & Wellbeing | 1 | Conducting annual employee surveys to collate psychological culture data and information and the survey demonstrates that supervisor / project manager commitment to WHS | Wfs-2 L1 |
| Alliance Contract KPI B1.1 Safety & Wellbeing | 4 | Conducting annual employee surveys to collate psychological culture data and information and the demonstrating implementation (on a quarterly basis) of measures following psychological employee surveys and data scrutiny, with demonstrated impact / improvement following concurrent surveys. | Wfs-2 L1 |

| Document Reference | ID | KPI Modifiers | Relevant IS Credit/level |
|---|---|---|---|
| Alliance Contract KPI B2.3 Diversity & Inclusion | N/A | Percentage total of women in the workforce (minimum 15%) | Wfs-3 L1 |
| Alliance Contract KPI B2.3 Diversity & Inclusion | N/A | Percentage total of women in leadership (minimum 20%) | Wfs-3 L1 |
| Alliance Contract KPI B2.3 Diversity & Inclusion | N/A | First Nations Aboriginal and Torres Islander Peoples participation (minimum 1%) | Wfs-3 L1 |
| Alliance Contract KPI B2.3 Diversity & Inclusion | N/A | Percentage of people with disability (minimum 1%) | Wfs-3 L1 |
| Alliance Contract KPI B2.3 Diversity & Inclusion | N/A | Percentage of people who are culturally and linguistically diverse (minimum 4%) | Wfs-3 L1 |
| Alliance Contract KPI B2.3 Diversity & Inclusion | N/A | Programs and strategies in place to encourage local participation and engagement, traineeships, and mentor programs within local areas (minimum 1 program with >5% local participation/employment) | Wfs-3 L1 |

In addition, Annexure C of the Alliance Contract commits to the following sustainability-related objectives and targets outlined in Table 4.

*Table 4: Relevant sustainability-related objectives and targets in Annexure C - Implementation Plan*

| Document Reference | Objectives/ Commitments | Target/ Measure | Relevant IS Credit/level |
|---|---|---|---|
| Annexure C Implementation Plan - Budget 1 Objectives | **Implement Sustainable Solutions**<br>- Maintain or enhance waterway health and amenity<br>- Comply with EPL requirements<br>- Minimise carbon footprint<br>- Contribute to Circular Economy – recycled water and beneficial reuse of biosolids | Compliance with the WRRFs EPL and NSW EPA's 2019 Hawkesbury Nepean Nutrient Framework in accordance with the limits and targets of the Performance Specification. | Env-1 L1 |
| | | Diversify biosolids product to be able to re-use 100% of produced bio solids for beneficial purpose. | Rso-4 L3 |
| Annexure C Implementation Plan - Budget 1 Objectives | **Minimise Service Disruption**<br>Reliable recycled water supply to Rouse Hill Recycled Water Scheme | Minimise operational carbon footprint at Rouse Hill WRRF by adopting MBR technology. | Ene-1 L1 |
| | | Increased recycled water production capacity and | Wat-1 L1 |

| Document Reference | Objectives/ Commitments | Target/ Measure | Relevant IS Credit/level |
|---|---|---|---|
| | | improve reliability that contribute to reduce potable water top up in Rouse Hill RWP to 10%. | |
| Annexure C Implementation- Net Zero Approach | Develop a Net Zero and Sustainability Management Plan | N/A | Lea-1 L1, Ene-1 L1 |
| Annexure C Implementation- Net Zero Approach | Develop a Biochar Reuse Strategy | N/A | Rso-4 L3 |

## 2.2. Project Sustainability Objectives and Targets

### 2.2.1. North West Treatment Hub Growth Program Sustainability Strategy

Sustainability objectives (see Table 4) were developed by Sydney Water as part of the North West Treatment Hub Growth Program Sustainability Strategy (NWTHGP SS) (see section 2.2.3 and Appendix A). These sustainability objectives will be reviewed and updated through a facilitated workshop as outlined in the stakeholder engagement schedule outlined in Table 17.

The workshop will include the Alliance Integrated Management team (AIMT) and Sydney Water (the Proponent/ Client) as required by Lea-1 DL2.1. In addition, representatives from the Dharug People and high influence and affected groups as identified in the Community and Stakeholder Engagement Plan [NWHA-PW-MPL-CSR-NWH-0001] will review and provide feedback on the updated objectives and SMART targets through the Community Reference Group (CRG) and Stakeholder Reference Group (SRG) in alignment with Lea-1 DL2.1.

### 2.2.2. Materiality Assessment

Preliminary Materiality Assessments have been undertaken using the materiality assessment tool in the ISv2.1 Scorecard. The Materiality Assessment has not yet been verified by ISC and, at the time of writing this SuMP, the Project is still assessing the heritage and environmental considerations in relation to the HV cabling works and carbonisation process. Following the Review of Environmental Factors (REF) Addendum submission, which will include the outcomes of the additional heritage and environmental impacts, the Materiality Assessment will be submitted to ISC for verification.

This section of the SuMP will be updated should the outcomes of the additional assessments change once ISC verification or the REF Addendum is complete.

Three scenarios have been analysed to determine the impacts of the heritage and environmental assessment findings on the Project's materiality assessment. The scenarios are presented in Table 5.

*Table 5: Materiality Assessment scenario assumptions*

| Scenario | Assumptions |
|---|---|
| Scenario 1 | • Pla-2 can be scoped out due to limited interface with residents. Public use or land considered important to Indigenous Peoples of the Land.<br>• Heritage sites and/or values identified within the HV cable routes.<br>• Sensitive receivers are greater than 50m away from the HV cable construction zones. |
| Scenario 2 | • Pla-2 is scoped in.<br>• Heritage sites and/or values are identified within the HV cable routes.<br>• Sensitive receivers are less than 50m away from the HV cable construction zones. |
| Scenario 3 | • Pla-2 can be scoped out due to limited interface with residents. Public use or land considered important to Indigenous Peoples of the Land.<br>• Heritage sites are not identified within the HV cable routes. |

| Scenario | Assumptions |
|---|---|
| | • Sensitive receivers are located further than 50m away from the HV cable construction zones. |

The three Materiality Assessment scenarios are provided in Table 8 below. Orange highlighting represents high materiality (dark orange represents a mat score of 4, and light orange a mat score of 3) and turquoise highlighting represents scope outs. No highlighting represents medium or low materiality.

#### 2.2.2.1. Material topic areas

##### 2.2.2.1.1 Material IS credits

There are 14 Credits consistently identified as material (materiality score of 3 or 4) in all three scenarios:

Credits consistently identified as Very High materiality (Materiality Score of 4):

- Res-2: Resilience Planning
- Env-1: Receiving Water Quality
- Env-4: Air Quality
- Rso-4: Resource Recovery and Management
- Rso-5: Adaptability and End of Life

Credits consistently identified as High materiality (Materiality Score of 3):

- Res-1: Climate and Natural Hazards
- Ene-1: Energy Efficiency and Carbon Reductions
- Ene-2: Renewable Energy
- Ene-3: Offsetting
- Rso-6: Material Life Cycle Impact Measurement & Management
- Rso-7: Sustainability Labelled Products and Supply Chains
- Eco-1: Ecological Protection and Enhancement

For clarity, the material sustainability topics have been summarised into three material topic areas as outlined in Table 6.

*Table 6 Summarised material sustainability topics*

| Material topic area | Relevant material IS credits |
|---|---|
| Climate and Resilience | • Res-1: Climate and Natural Hazards<br>• Res-2: Resilience Planning<br>• Ene-1: Energy Efficiency and Carbon Reductions<br>• Ene-2: Renewable Energy<br>• Ene-3: Offsetting |
| Circular Economy | • Rso-4: Resource Recovery and Management<br>• Rso-5: Adaptability and End of Life<br>• Rso-6: Material Life Cycle Impact Measurement & Management<br>• Rso-7: Sustainability Labelled Products and Supply Chains |
| Environment | • Env-1: Receiving Water Quality<br>• Env-4: Air Quality<br>• Eco-1: Ecological Protection and Enhancement |

#### 2.2.2.1.2 Material Sustainable Development Goals (SDGs)


In accordance with Lea-1 DL1.1, the sustainability objectives and targets must respond to the Project's most material topics including the UN Sustainable Development Goals (SDGs) impacts and priority Credits. Each Credit in the IS rating is mapped to one or more UN SDGs.

Table 7 outlines the material Credits as identified above, and the associated SDGs as outlined in the ISv2.1 Technical Manual. The most material SDGs are 6, 7, 9, 11, 12, 13, 14, 15 and 17 as presented in Figure 2.

*Figure 2: Relevant SDGs denoted by a black outline*

#### 2.2.2.1.3 Material IS Credits and Associated Material UNSDGs

*Table 7: Most material IS Credits and their associated SDGs*

| Materiality score | Material IS Credits | Associated UNSDGs |
|---|---|---|
| 4 | Res-2: Resilience Planning | SDG 9: Industry. Innovation and Infrastructure<br>SDG 11: Sustainable Cities and Communities<br>SDG 13: Climate Action |
| 3 | Res-1: Climate and Natural Hazards | |
| 4 | Rso-4: Resource Recovery and Management | SDG 11: Sustainable Cities and Communities<br>SDG 12: Responsible Consumption and Production |
| 4 | Rso-5: Adaptability and End of Life | |

| Materiality score | Material IS Credits | Associated UNSDGs |
|---|---|---|
| 3 | Rso-6: Material Life Cycle Impact Measurement & Management | SDG 17: Partnerships for the Goals |
| 3 | Rso-7: Sustainability Labelled Products and Supply Chains | |
| 4 | Env-1: Receiving Water Quality | SDG 6: Clean Water and Sanitation<br>SDG 11: Sustainable Cities and Communities<br>SDG 13: Climate Action |
| 4 | Env-4: Air Quality | |
| 3 | Ene-1: Energy Efficiency and Carbon Reductions | SDG 7: Affordable and Clean Energy<br>SDG 11: Sustainable Cities and Communities |
| 3 | Ene-3: Offsetting | |
| 3 | Eco-1: Ecological Protection and Enhancement | SDG 14: Life Below Water<br>SDG 15: Life on Land |

#### 2.2.2.1.4 Materiality Scenarios

Two Credits were identified as material in scenario 2 (Env-2 Noise and Env-5 Light Pollution) that were not identified as material in either scenario 1 or 3. In addition, one Credit was consistently scoped out (Rso-3 Management of Acid Sulfate Soils), one Credit is scoped out in scenarios 1 and 3 only (Pla-1 Urban and Landscape Design), and one Credit that is scoped out in scenario 3 only (Her-1 Heritage).

*Table 8: Three Materiality Assessment scenarios*

| Credit | Credit Name | Materiality score Scenario 1 | Materiality Score Scenario 2 | Materiality Score Scenario 3 |
|---|---|---|---|---|
| Pla-2 | Urban and Landscape Design | 0 | 2 | 0 |
| Lea-1 | Integrating Sustainability | 2 | 2 | 2 |
| Lea-2 | Risks & Opportunities | 2 | 2 | 2 |
| Lea-3 | Knowledge Sharing | 2 | 2 | 2 |
| Spr-1 | Sustainable Procurement Strategy | 2 | 2 | 2 |
| Spr-2 | Supplier Assessment and Selection | 2 | 2 | 2 |
| Spr-3 | Contract and Supplier Management | 2 | 2 | 2 |
| Res-1 | Climate and Natural Hazards Risks | 3 | 3 | 3 |
| Res-2 | Resilience Planning | 4 | 4 | 4 |
| Inn-1 | Innovation | 2 | 2 | 2 |
| Ecn-1 | Options Assessment and Significant Decisions | 2 | 2 | 2 |
| Ene-1 | Energy Efficiency and Carbon Reductions | 3 | 3 | 3 |
| Ene-2 | Renewable Energy | 3 | 3 | 3 |
| Ene-3 | Offsetting | 3 | 3 | 3 |
| Env-1 | Receiving Water Quality | 4 | 4 | 4 |

| Credit | Credit Name | Materiality score Scenario 1 | Materiality Score Scenario 2 | Materiality Score Scenario 3 |
|---|---|---|---|---|
| Env-2 | Noise | 2 | 4 | 2 |
| Env-3 | Vibration | 1 | 1 | 1 |
| Env-4 | Air Quality | 4 | 4 | 4 |
| Env-5 | Light Pollution | 1 | 3 | 1 |
| Rso-1 | Resource Strategy Development | 4 | 4 | 4 |
| Rso-2 | Management of Contaminated Material | 4 | 4 | 4 |
| Rso-3 | Management of Acid Sulfate Soil | 0 | 0 | 0 |
| Rso-4 | Resource Recovery and Management | 4 | 4 | 4 |
| Rso-5 | Adaptability and End of Life | 4 | 4 | 4 |
| Rso-6 | Material Life Cycle Impact Measurement & Management | 3 | 3 | 3 |
| Rso-7 | Sustainability Labelled Products and Supply Chains | 3 | 3 | 3 |
| Wat-1 | Avoiding Water Use | 1 | 1 | 1 |
| Wat-2 | Appropriate Use of Water Sources | 1 | 1 | 1 |
| Eco-1 | Ecological Protection and Enhancement | 3 | 3 | 3 |
| Sta-1 | Stakeholder Engagement Strategy | 2 | 2 | 2 |
| Sta-2 | Stakeholder Engagement and Impacts | 2 | 2 | 2 |
| Leg-1 | Leaving a Lasting Legacy | 2 | 2 | 2 |
| Her-1 | Heritage Protection and Enhancement | 2 | 2 | 0 |
| Wfs-1 | Jobs, Skills and Workforce Planning | 2 | 2 | 2 |
| Wfs-2 | Workplace Culture and Wellbeing | 2 | 2 | 2 |
| Wfs-3 | Diversity and Inclusion | 2 | 2 | 2 |
| Wfs-4 | Sustainable Site Facilities | 2 | 2 | 2 |

### 2.2.3. Updated Project Sustainability Objectives and Targets

The Project will review and update the existing sustainability objectives to take into account changes to project scope since their development.

#### 2.2.3.1. Current Project Sustainability Objectives

The Sustainability Objectives outlined in Table 9 have been extracted from the Sydney Water North West Treatment Hub Growth Program (NWTHGP) Sustainability Strategy (Appendix A). In alignment with Lea-1 DL1.1, these sustainability objectives will be reviewed and updated to reflect the change in project scope since they were developed.

The objectives in Table 9 will form the basis of the updated Sustainability Objectives for the Project. In addition, a gap assessment has been conducted (see section 2.2.3.3) to identify gaps when comparing the sustainability objectives against the material sustainability topics identified in section 2.2.2, the IS required targets (Table 10), Deed requirements (Table 2 and Table 3), Annexure C commitments (Table

4) and associated UNSDGs (Table 7). A workshop was held on 4th April 2024 with Sydney Water, the AIMT and key project stakeholders to agree on updated project sustainability objectives, in accordance with the engagement schedule outlined in Table 17. Through the CRG and SRG, key external stakeholders, including the Traditional Custodians, the Dharug People, will be invited to review and provide feedback on the updated sustainability objectives, in alignment with Lea-1 DL2.1.

*Table 9: NWTH Sustainability Objectives extracted from the NWTHGP Sustainability Strategy*

| Theme | Objective | Source |
|---|---|---|
| Leadership and Governance | Promote a supportive and high performing work culture that embraces behaviours that contribute to sustainable and improved environmental outcomes and embraces innovation. | Sydney Water Strategy 2020 - 2030<br>Environmental Policy |
| Energy and Carbon | Best practice energy efficient processes and assets (new and existing). | Carbon Zero Plan and Circular Economy Blueprint<br>Planning Guideline – Best Practice Energy Efficiency<br>Design Guideline – Best Practice Energy Efficiency |
| | Contribute to net zero carbon for Sydney Water Operations (Scope 1 and 2 carbon emissions) | Carbon Zero Plan, and NWTH Carbon Zero Approach |
| | Contribute to the decarbonisation of the supply chain (scope 3 carbon emissions). | Circular Economy Blueprint and Carbon Zero Plan |
| Circular Economy | Maximise resource value and support a circular economy by responsibly managing energy, water and materials, and minimising waste creation | Sydney Water Strategy 2020 - 2030<br>Circular Economy Blueprint |
| Climate & Resilience | Take a systems approach to address climate-related risks and other shocks and stresses through improved resistance, reliability, redundancy, response and recovery. | SW Climate Change Adaptation Position Statement<br>SW Resilience Policy & SW Environmental Policy |
| Sustainable Procurement | Make supply chain decisions that are sustainable and socially responsible. | Environmental Policy<br>SWEMS<br>Corporate Social Responsibility Blueprint<br>Community Engagement Blueprint |
| Customer and the Community | Operate in a socially responsible manner and proactively engage and partner with stakeholders, customers and community groups to achieve positive environmental outcomes. | SW Environmental Policy<br>Corporate Social Responsibility Blueprint<br>Reconciliation Action Plan 2021 – 2023<br>Sydney Water Customer Promises |
| Environmental Protection | Protect, restore and enhance natural and heritage assets. | SW Environmental Policy |

| Theme | Objective | Source |
|---|---|---|
| | | Health Waterways and Environment Blueprint |

#### 2.2.3.2. SMART targets

For effective coordination and management of sustainability objectives and targets, the required SMART targets for the chosen rating pathway (stretch) have been extracted and provided in Table 10. These SMART targets have been mapped against the existing sustainability objectives identified Table 9, and the material sustainability topics identified in Section 2.2.2 to understand sustainability objective gaps for consideration in the sustainability workshop (see section 2.2.3.3).

*Table 10: SMART targets required as part of the targeted IS Credits*

| Credit | Level | SMART target requirements |
|---|---|---|
| Lea-1 | Ruling Lea-1.01 (TC) | Sustainability objectives and SMART sustainability targets must respond to the project's most important sustainability topics (informed by the verified materiality assessment – including UN SDG impacts and priority Credits). |
| Spr-1 | D/ABL1.3 | Sustainable procurement objectives and SMART targets must be developed and included in the project's sustainability management reporting and assurance processes. |
| Spr-3 | D/ABL1.1 | Sustainability commitments and compliance management mechanisms (e.g. SMART sustainability targets) must be written into contracts where there is a material sustainability risk or opportunity. |
| Env-1 | DL1.3 | SMART water discharge and receiving water quality goals must be established for the project considering the baseline data (DL1.1) and predicted project impacts (DL1.2) and cover both construction and operational phases. |
| Env-2 | DL1.3 | SMART noise goals must be established for the project considering the baseline data (DL1.1) and modelled impacts (DL1.2) and cover both construction and the operating asset. |
| Env-4 | DL1.3 | SMART air quality goals must be established for the project considering the baseline data (DL1.1) and modelled impacts (DL1.2) and cover both construction and operational phases. |
| Rso-1 | DL1.1 | The RES must outline project-specific resource efficiency SMART targets for the project through each phase of the infrastructure life cycle, considering both resource inputs and outputs |
| Rso-2 | DL1.2 | SMART contamination remediation and management stretch targets must be developed (according to potential location, classification or type, and volume of contaminated material) and take into account previous site investigations and any other baseline contamination information. |
| Rso-4 | DL1.2 | SMART resource output targets for Design & As Built must be developed for achievement at Levels 2 and 3 (according to location, type, and volume). |
| Rso-5 | DL1.2 | Based on the outcomes from the adaptability workshop, a strategy or management plan (or equivalent) must be created including:<br>• Project objectives and SMART targets for adaptability and end of life…. |
| Wfs-1 | DL1.2 | A workforce action plan must be developed and implemented to address recruitment, retention and training requirements, and fill the skills needs identified in the analysis (DL1.1) and include the following:<br>• SMART targets to fill identified skills needs and support retention and training…. |

| Credit | Level | SMART target requirements |
|---|---|---|
| Wfs-2 | DL1.1 | The (Culture and Well-being) program must outline objectives and SMART targets. An action plan must be developed outlining how the objectives and targets will be achieved, and who has responsibility for the action and outcomes. |
| Wfs-3 | DL.1.1 | A Diversity and Inclusion program must be developed, and include:<br>• Commitments, objectives and SMART targets related to improving diversity, and providing equal access to opportunities and fair treatment in the workplace…. |

#### 2.2.3.3. Objective and Targets Gap Assessment

Table 28 (Appendix H) has been compiled to map the existing sustainability objectives, targets, KPIs, Deed requirements and IS rating required targets to identify gaps in coverage of the existing sustainability objectives as an input into the Sustainability Workshop.

The assessment found that the current sustainability objectives outlined in the NWTHGP SS are still relevant and cover the material sustainability topic areas (outlined in section 2.2.2.1), the material associated UNSDGs (outlined in section 2.2.2.1.2) and a large proportion of the IS require targets (outlined in section 2.2.3.2). The only potential gap identified was Workforce Sustainability which could fit under “Promote a supportive and high performing work culture that embraces behaviours that contribute to sustainable and improved environmental outcomes and embraces innovation” with a slight adjustment to the objective wording. Changes were discussed at the Sustainability Workshop held on 4th April 2024. The proposed updated sustainability Themes and Objectives are outlined in section 2.2.3.4.

#### 2.2.3.4. Proposed Updated Sustainability Objectives and Targets

A Sustainability Workshop was held on 4th April 2024 with NWHA and Sydney Water. The original Sustainability Themes and Objectives developed as part of the NWTH Growth Sustainability Strategy were reviewed and updated. The proposed updated Sustainability Themes and Objectives are outlined below. The key changes are:

- Leadership and Governance Theme renamed to Leadership, Governance and Culture
- The Sustainable Procurement Theme merged with the Leadership, Governance and Culture Theme
- The Energy and Carbon Theme and the Climate and Resilience Theme merged.

These updated objectives will be provided to the AIMT for review and endorsement before being reviewed by the CRG and SRG. The process and schedule for approval is outlined in section 2.2.3.5.

The updated objectives respond to all material IS credits and UNSDGs as outlined in Table 7 and mapped below.

*Table 11: Sustainability objectives*

| Theme | Objective | Material IS Credits | Material UNSDGs |
|---|---|---|---|
| Leadership, Governance and Culture | Promote a supportive and high performing work culture that embraces behaviours that contribute to sustainable and improved environmental outcomes and embraces innovation. | N/A | N/A |
| | Make supply chain decisions that are sustainable and socially responsible. | Rso-4, Rso-5, Rso- 6, Rso-7 | SDG 11, 12, 17 |

| Theme | Objective | Material IS Credits | Material UNSDGs |
|---|---|---|---|
| Energy, Climate and Resilience | Best practice energy efficient processes and assets (new and existing). | Ene-1, Ene-2, Ene-3 | SDG 7, 11 |
| | Contribute to net zero carbon for Sydney Water Operations (Scope 1 and 2 carbon emissions) | | |
| | Contribute to the decarbonisation of the supply chain (scope 3 carbon emissions). | | |
| | Take a systems approach to address climate-related risks and other shocks and stresses through improved resistance, reliability, redundancy, response and recovery. | Res-1, Res-2 | SDG 9, 11, 13, 14, 15 |
| Environmental Protection | Protect, restore and enhance natural and heritage assets. | Env-1, Env-4, Eco-1 | SDG 6, 11 |
| Circular Economy | Maximise resource value and support a circular economy by responsibly managing energy, water and materials, and minimising waste creation. | Rso- 4, Rso-5, Rso-6, Rso-7, Env-1, Env-4, Ene-1 Ene-2, Ene-3, Eco-1 | SDG 6, 7,11, 12, 14, 15, 17 |
| Customer and the Community | Operate in a socially responsible manner and proactively engage and partner with stakeholders, customers and community groups to achieve positive environmental outcomes. | Res-2, Env-1, Env-4, Eco-1 | SDG, 6, 9, 11, 12, 14, 15 |

#### 2.2.3.5. Approval and Publishing of Sustainability Objectives and Targets

The process and timeline for approval and publishing of the sustainability objectives and targets is provided in Table 12 below:

*Table 12: Sustainability objectives and target review, update, approval and publishing steps*

| Step | Process | Key stakeholders | Proposed Timeframe |
|---|---|---|---|
| 1 | Prepare gap assessment as described in section 2.2.3.3. | Sustainability team | March 2024 |
| 2 | Review sustainability objectives and targets in the Sustainability Workshop. | AIMT, Sydney Water, key project team members | April 2024 |
| 3 | Draft updated sustainability objectives and targets endorsed. | AIMT, Sydney Water | August 2024 |

| Step | Process | Key stakeholders | Proposed Timeframe |
|---|---|---|---|
| 4 | Endorsed sustainability objectives reviewed by the SRG and CRG. | Communication Manager, SRG, CRG | Novemeber 2024 |
| 5 | Stakeholder feedback reviewed; sustainability objectives updated if required. | Sustainability team | Novemeber 2024 |
| 6 | Updated sustainability objectives approved. | AIMT, Sydney Water | December 2024 |
| 7 | Approved sustainability objectives published on project website. | Sydney Water | January 2025 |

### 2.2.4. Targets, Responsibilities, and Reporting

Table 13 below will be completed once the updated sustainability objectives are approved by the AIMT and Sydney Water. It will detail the agreed targets, KPIs, monitoring approach, reporting requirements and allocate a responsible position to deliver each target. This approach aligns with the requirements of Lea-1 DL1.1.

*Table 13: Targets, responsibilities and reporting requirements*

| Theme | Objective | KPI | SMART Target | Monitoring | Reporting | Action Plans | Responsibility |
|---|---|---|---|---|---|---|---|
| Leadership, Governance and Culture | Promote a supportive and high performing work culture that embraces behaviours that contribute to sustainable and improved environmental outcomes and embraces innovation. | (KPI B2.1) Target pathway – a conservative pathway to achieve a 'Silver' rating (40 points), including Credit criteria most applicable to wastewater and Sydney Water processes, and focused to drive sustainability outcomes aligned with Sydney Water sustainability objectives. | Deliver an ISv2.1 Design and As Built rating and achieve at least 40 points. | IS tracker | Metric: On track to achieve IS target<br>Frequency: Monthly reporting to AIMT & Sydney Water. | | Sustainability Lead |
| | | (KPI B2.1 d) Achieve =>5 points for Innovation Credit. | Achieve equal or greater than 5 innovation points in the ISv2.1 Design and As Built rating. | IS tracker- Innovation credit | Metric: On track to achieve IS target (Innovation credit)<br>Frequency: Monthly reporting to AIMT. | | Sustainability Lead |
| | Make supply chain decisions that are sustainable and socially responsible. | (KPI B2.1 e) Procure products with ISC approved sustainability labels | Procure products with ISC approved sustainability labels for 10% of total materials by | IS tracker- Rso- 7 credit | Metric: On track to achieve IS target (Rso-7 credit)<br>Frequency: Monthly reporting to AIMT. | | Sustainability Lead |

| Theme | Objective | KPI | SMART Target | Monitoring | Reporting | Action Plans | Responsibility |
|---|---|---|---|---|---|---|---|
| | | for 10% of total materials by cost. | cost by the end of As Built. | | | | |
| Energy, Climate and Resilience | Best practice energy efficient processes and assets (new and existing).<br><br>Contribute to net zero carbon for Sydney Water Operations (Scope 1 and 2 carbon emissions) | (KPI B2.1 b) Reduce construction Scope 1 and 2 carbon emissions, and embodied carbon emissions associated with materials by 10-30% when compared to a verified IS base case. | Achieve 10% - 30% reduction in energy use and carbon emissions compared to 'agreed Base Case (to be developed by the Alliance)' during construction. | Energy bills<br><br>Energy metres<br><br>Sub consultant reporting | Metric: Energy consumption vs energy consumption target.<br><br>Frequency: Monthly reporting to AIMT. | | Sustainability Lead |
| | Contribute to the decarbonisation of the supply chain (scope 3 carbon emissions). | (KPI B2.1 e) Procure products with ISC approved sustainability labels for 10% of total materials by cost. | Procure products with ISC approved sustainability labels for 10% of total materials by cost by the end of As Built. | As above | As above | | As above |
| | | 20% increase in electricity sourced from renewables (construction only) | | Energy meters & renewable energy model<br><br>Subcontractor NGER And Sustainability Report (NWHA-PW-REP-ENV-JHG-0001_01) (subcontractors) | Metric: Percentage of electricity use from renewable sources.<br><br>Frequency: Monthly reporting to AIMT from construction phase. | | Sustainability Lead |

| Theme | Objective | KPI | SMART Target | Monitoring | Reporting | Action Plans | Responsibility |
|---|---|---|---|---|---|---|---|
| | | 10% reduction in material life cycle impacts from a Base Case scenario. | | ISC Materials Calculator model or equivalent.<br>IS tracker- Rso-6 credit | Metric: Percentage reduction in life cycle impacts from a Base Case scenario.<br>Frequency: Once at the end of Design phase and once at the end of As Built Phase | | Sustainability Lead |
| | Take a systems approach to address climate-related risks and other shocks and stresses through improved resistance, reliability, redundancy, response and recovery. | Achieve a minimum Level 1 for Res-1 and Res-2 in the ISv2.1 rating. | Achieve a minimum Level 1 for Res-1 and Res-2 in the ISv2.1 Design and As Built rating. | IS tracker- Res-1 and Res-2 credits | Metric: On track to achieve IS target (Res-1 & 2 credits)<br>Frequency: Monthly reporting to AIMT. | | Sustainability Lead |
| Environmental Protection | Protect, restore and enhance natural and heritage assets. | Achieve a minimum level 1 for Eco-1 and Her-1 (if scoped in) in the ISv2.1 rating. | Achieve a minimum level 1 for Eco-1 and Her-1 (if scoped in) in the ISv2.1 Design and As Built rating. | IS tracker- Eco-1 and Her-1 credits | Metric: On track to achieve IS target (Eco-1, Her-1 credits)<br>Frequency: Monthly reporting to AIMT. | | Environment Lead |
| Circular Economy | Maximise resource value and support a circular economy by responsibly managing energy, water and materials, and minimising waste creation. | (KPI B2.1 a) Achieve circular economy outcomes through delivering a Resource Efficiency Strategy and Plan in alignment ISv2.1 Rso-1. This Plan must reference the | Deliver a Resource Efficiency Strategy and Plan which addresses Biochar reuse by June 2029. | Biochar Strategy update | Metric: Delivery vs schedule<br>Frequency: Monthly reporting to AIMT. | | Sustainability Lead |

| Theme | Objective | KPI | SMART Target | Monitoring | Reporting | Action Plans | Responsibility |
|---|---|---|---|---|---|---|---|
| | | Sydney Water led and developed Biochar Reuse Strategy. | | | | | |
| | | (KPI B2.1 c) Achieve the following waste avoidance and diversion targets:<br>> 85% avoidance or diversion of clean/inert excavation spoil<br>> 50 - 60% avoidance or diversion of office waste<br>> 70% avoidance or diversion of other inert resource outputs. | Achieve an 85% diversion raye for clean/inert excavation spoil, a 50-60% diversion rate for office waste and a 70% diversion rating for other inert wastes. | IS tracker- Rso-4 credit<br>Waste Audits<br>Waste provider reports | Metric: On track to achieve IS target (Rso-4 credit)<br>Frequency: Monthly reporting to AIMT. | | Sustainability Lead |
| | | | | | | | |
| Customer and the Community | Operate in a socially responsible manner and proactively engage and partner with stakeholders, customers and community groups to achieve positive environmental outcomes. | (KPI B5.1) CESP functional inspections conducted by the client.<br>Minimise frequency of voidable complaints | Record and monitor CESP functional inspections through-out the delivery phase of the project.<br>Record and reduce the frequency of voidable | CESP functional inspections - average of scores over the month<br>Avoidable complaints frequency rate | Metric:<br>Frequency: Monthly reporting to AIMT. | | Stakeholder Lead |

| Theme | Objective | KPI | SMART Target | Monitoring | Reporting | Action Plans | Responsibility |
|---|---|---|---|---|---|---|---|
| | | | complaints during the delivery phase of the project. | | | | |

## 2.3. IS Rating Pathway

The scope and boundary of the IS rating are equal to the NWTH Growth Budget 1 as outline in section 1.2 of this plan. The Riverstone WRRF and Rouse Hill WRRF shall be combined into one IS rating submission. Further detail of the IS rating processes and pathways outlined in Appendix B.

The Project is aiming to deliver outcomes in alignment with a **minimum 40 Points or "Silver"** rating under a Design and As Built IS Rating v2.1. Table 14 provides an overview of the Project's target and stretch scores, and materiality score for each Credit and target levels. The Materiality Assessment is yet to be verified by ISC, therefore the materiality score for each Credit may be subject to change. Three materiality scenarios (see Table 5 and Table 8) have been developed to provide a range of materiality scores and associated IS points. The target score for the Project is between **60.7-63.4 (Gold)** and the stretch target is between **74.7-78.0 (Gold).** A target score is always higher than a minimum or contractual score as it cannot be guaranteed ISC will verify each Credit as expected. This means a buffer of 10-15 points is required above any targeted or contractually required IS scores.

*Table 14: ISv2.1 rating pathways*

| Credit | Credit name | Materiality score | Target level / no. levels | Target score (range) | Stretch level/ no. levels | Stretch score (range) |
|---|---|---|---|---|---|---|
| Pla-2 | Urban and Landscape Design | 0 or 2 | 0/3 | 0 | 0/3 | 0.00 |
| Lea-1 | Integrating Sustainability | 2 | 3/3 | 3.37-3.64 | 3/3 | 3.37-3.64 |
| Lea-2 | Risks & Opportunities | 2 | 2/3 | 1.40-1.51 | 2/3 | 1.40-1.51 |
| Lea-3 | Knowledge Sharing | 2 | 2/3 | 1.40-1.51 | 2/3 | 1.40-1.51 |
| Spr-1 | Sustainable Procurement Strategy | 2 | 3/3 | 2.52-2.73 | 3/3 | 2.52-2.73 |
| Spr-2 | Supplier Assessment and Selection | 2 | 2/3 | 1.40-1.51 | 3/3 | 2.10-2.27 |
| Spr-3 | Contract and Supplier Management | 2 | 2/3 | 1.40-1.51 | 3/3 | 2.10-2.27 |
| Res-1 | Climate and Natural Hazards Risks | 3 | 2/3 | 2.10-2.27 | 3/3 | 3.16-3.33 |
| Res-2 | Resilience Planning | 4 | 2/3 | 4.49-4.85 | 3/3 | 6.73-7.27 |
| Inn-1 | Innovation | 2 | 5/10 | 5 | 10/10 | 10 |
| Ecn-1 | Options Assessment and Significant Decisions | 2 | 0/3 | 0 | 1/3 | 1.40-1.51 |
| Ene-1 | Energy Efficiency and Carbon Reductions | 3 | 1/3 | 1.58-1.70 | 1/3 | 1.58-1.70 |
| Ene-2 | Renewable Energy | 3 | 0/3 | 0 | 0/3 | 0 |
| Ene-3 | Offsetting | 3 | 0/3 | 0 | 0/3 | 0 |
| Env-1 | Receiving Water Quality | 4 | 1/3 | 0.97-1.05 | 1/3 | 0.97-1.05 |

| Credit | Credit name | Materiality score | Target level / no. levels | Target score (range) | Stretch level/ no. levels | Stretch score (range) |
|---|---|---|---|---|---|---|
| Env-2 | Noise | 2 or 4 | 2/3 | 1.02-1.93 | 2/3 | 1.02-1.93 |
| Env-3 | Vibration | 1 | 0/3 | 0 | 0/3 | 0 |
| Env-4 | Air Quality | 4 | 2/3 | 1.93-2.08 | 3/3 | 3.13-2.89 |
| Env-5 | Light Pollution | 1 or 3 | 0/3 | 0 | 0/3 | 0 |
| Rso-1 | Resource Strategy Development | 4 | 3/3 | 3.37-3.64 | 3/3 | 3.37-3.64 |
| Rso-2 | Management of Contaminated Material | 4 | 2/2 | 1.68-1.82 | 2/2 | 1.68-1.82 |
| Rso-3 | Management of Acid Sulfate Soil | 0 | 0/0 | 0 | 0/0 | 0 |
| Rso-4 | Resource Recovery and Management | 4 | 2/3 | 2.24-2.42 | 2/3 | 2.24-2.42 |
| Rso-5 | Adaptability and End of Life | 4 | 1/3 | 1.21-1.33 | 1/3 | 1.21-1.33 |
| Rso-6 | Material Life Cycle Impact Measurement & Management | 3 | 0.67/3 | 1.26-1.36 | 0.67/3 | 1.26-1.36 |
| Rso-7 | Sustainability Labelled Products and Supply Chains | 3 | 0.67/3 | 0.42-0.45 | 0.67/3 | 0.42-0.45 |
| Wat-1 | Avoiding Water Use | 1 | 1/3 | 0.42-0.45 | 1/3 | 0.42-0.45 |
| Wat-2 | Appropriate Use of Water Sources | 1 | 1/3 | 0.42-0.45 | 1/3 | 0.42-0.45 |
| Eco-1 | Ecological Protection and Enhancement | 3 | 2/3 | 5.89-6.36 | 2/3 | 5.89-6.36 |
| Sta-1 | Stakeholder Engagement Strategy | 2 | 3/3 | 2.94-3.18 | 3/3 | 2.94-3.18 |
| Sta-2 | Stakeholder Engagement and Impacts | 2 | 3/3 | 2.94-3.18 | 3/3 | 2.94-3.18 |
| Leg-1 | Leaving a Lasting Legacy | 2 | 2/3 | 1.26-1.36 | 3/3 | 1.89-2.04 |
| Her-1 | Heritage Protection and Enhancement | 0 or 2 | 1/3 or 0 | 0-0.74 | 1/3 | 0-0.74 |
| Wfs-1 | Jobs, Skills and Workforce Planning | 2 | 2/2 | 2.52-2.73 | 2/2 | 2.52-2.73 |

| Credit | Credit name | Materiality score | Target level / no. levels | Target score (range) | Stretch level/ no. levels | Stretch score (range) |
|---|---|---|---|---|---|---|
| Wfs-2 | Workplace Culture and Wellbeing | 2 | 2/3 | 1.26-1.36 | 3/3 | 1.89-2.04 |
| Wfs-3 | Diversity and Inclusion | 2 | 2/3 | 1.26-1.36 | 3/3 | 1.89-2.04 |
| Wfs-4 | Sustainable Site Facilities | 2 | 3/3 | 1.47-1.59 | 3/3 | 1.47-1.59 |
| | | | **Total score** | **60.7-63.4 (Gold)** | **Total score** | **74.7-78.0 (Gold)** |

### 2.3.1. Key Rating Milestones

Table 15 below outlines the key IS rating milestones and status.

*Table 15: IS-related project milestones*

| ISC Component | Key Dates | Status |
|---|---|---|
| Establishment Period | 22/12/2023- 22/06/2024 | N/A |
| ISC registration | Submitted 22/01/2024 | Contract signed 7th May 2024 |
| Formal Kick-Off Workshop (as part of the Sustainability Workshop) | April 2024 | Completed |
| Materiality Assessment | 7th November 2024 | Draft completed, awaiting REF-A outcomes before submission |
| Base Case | No due date | In progress |
| Publish sustainability objectives and targets on project website | Due 22/12/2024 | In progress |
| Publish Project Sustainability Report | 6 months post end of reporting period. Proposed reporting period is January 2023-December 2024. First report due 30 June 2025. | Not commenced |
| Submission of Design Round 1 | TBC | Not commenced |
| Submission of Design Round 2 | TBC | Not commenced |
| Submission of As Built Round 1 | TBC | Not commenced |
| Submission of As Built Round 2 | TBC | Not commenced |

# 3. Roles, Responsibilities and Stakeholders

## 3.1. Project Organisational Structure

The Project organisational structure is continuously updated can be viewed on Workbench. However, as of April 2024, the Organisational Chart is provided in

## 3.2. Project Roles and Sustainability Responsibility

The Project roles and sustainability responsibilities are outlined in Table 16 below.

*Table 16: Project roles and sustainability responsibilities*

| Role | Responsibilities |
|---|---|
| Alliance Manager | Authorising the implementation of the SuMP and reviewing compliance.<br>Overseeing and reporting on sustainability performance to the Client and NWHA.<br>Reviewing sustainability performance to ensure compatibility and continued effectiveness with the Sustainability Policy, project objectives and the SuMP.<br>Assigning sustainability responsibilities to project personnel and reviewing that employees are trained and possess the necessary skills to undertake their designated responsibilities.<br>Engage with the Community & Stakeholder Manager in a timely manner to identify ISC deliverables which require stakeholder feedback and support the Community and Stakeholder Manager to gather and respond accordingly to stakeholder responses. |
| Program Design Manager | Be accountable to the AIMT and work collaboratively with the Sustainability Lead to facilitate sustainability requirements inclusion, objectives and targets are achieved through design.<br>Ensure sustainability is embedded in the Design Management processes.<br>Support Sustainability in Design (SuID) principles by considering alternative materials that contribute to the Project's embodied energy reduction targets and reviewing designs to maximise energy, water and water use reductions.<br>Provide design governance to support the Sustainability Lead to enable the targeted IS Design Rating Score for the relevant Design Credits.<br>Engage with the Community & Stakeholder Manager in a timely manner to identify ISC deliverables which require stakeholder feedback and support the Community and Stakeholder Manager to gather and respond accordingly to stakeholder responses. |
| Community, Sustainability and Environment Manager | Work collaboratively with the Sustainability Lead to deliver sustainability requirements, objectives and targets are implemented and achieved through construction.<br>Assist the Sustainability Lead to drive and deliver the environment and sustainability management components of the Design and As-Built ISC rating.<br>Support the communication of sustainability commitments (including inclusion, diversity, energy efficiency, waste, environmental monitoring etc.) to relevant project personnel and included in relevant ITP's, SWMS, EWMS and AMSs.<br>Support the Sustainability Team to identify, develop, cost and implement sustainability initiatives and provide evidence to achieve an IS Rating for As Built.<br>Engage with the Community & Stakeholder Manager in a timely manner to identify ISC deliverables which require stakeholder feedback.<br>Support the Community and Stakeholder Director to gather and respond accordingly to stakeholder responses. |
| Sustainability Lead | Effectively lead and manage the development and implementation of a risk-based Sustainability Management System for the Works, including review and continual improvement of this Plan.<br>Develop the SuMP to implement the requirements of the project sustainability objectives, targets and IS v2.1 Rating Tool obligations. |

| Role | Responsibilities |
|---|---|
| | Include adequate environmental and sustainability considerations at Value Engineering Workshops using the Innovation and Continuous Improvement Framework.<br>Oversee the development, implementation, assessment and verification of sustainability measures for the works.<br>Oversee proactive identification, assigning of responsibility, monitoring and review of sustainability and planning risks and performance expectations, goals and standards for managing all potential adverse impacts.<br>Develop, review and support others to implement sustainability initiatives.<br>Report to the AIMT on sustainability-related issues.<br>Assist the procurement team in auditing and assessing major suppliers and subcontractors.<br>Review subcontractors' performance to ensure they fulfil their sustainability obligations.<br>Engage with the Community & Stakeholder Manager in a timely manner to identify ISC deliverables which require stakeholder feedback and support the Community and Stakeholder Manager to gather and respond accordingly to stakeholder responses. |
| Alliance Commercial Manager | Be accountable to the AIMT and provide suitably qualified resources to deliver the procurement and management components of the Design and As-built ISC rating.<br>Possess a recognised qualification relevant to the position and the Contractor's Activities and have at least fifteen years' experience in commercial management on Projects.<br>Engage with the Community & Stakeholder Manager in a timely manner to identify ISC deliverables which require stakeholder feedback and support the Community and Stakeholder Director to gather and respond accordingly to stakeholder responses. |
| People and Culture Director, Health & Safety Manager & | Be accountable to the AIMT to deliver the Workforce related components of the Design and As-built IS ratings.<br>Engage with the Community & Stakeholder Manager in a timely manner to identify ISC deliverables which require stakeholder feedback and support the Community and Stakeholder Manager to gather and respond accordingly to stakeholder responses. |
| Community and Stakeholder Manager | Be accountable to the AIMT to deliver the stakeholder (Sta-1 and Sta-2) components of the Design and As-built IS ratings.<br>Develop and implement the Community & Stakeholder Engagement Plan as well as issue specific sub plans as required.<br>Manage stakeholder expectations, enquiries and complaints.<br>Manage liaison with external stakeholders in consultation with design team to ensure community design integration. This could be achieved through attendance at design meetings.<br>Upload Project interaction, complaints and enquiries into the Project Consultation Manager database.<br>Manage an effective external communications and community relations program.<br>Ensure community consultation lead times are incorporated into the Project programs.<br>Develop, produce and disseminate the Project communications material.<br>Be responsible for managing community and key external stakeholders.<br>Identify and manage opportunities for community and stakeholder engagement / community information sessions / events.<br>Manage the day-to-day community engagement requirements. |
| Engineers/Site Supervisors | Providing and coordinating support, as required, to help the Sustainability Team identify, develop, cost and implement sustainability initiatives and provide evidence to achieve an IS Rating for Design and As Built, in accordance with client requirements.<br>Attending relevant sustainability meetings and programs.<br>Engage with the Community & Stakeholder Manager in a timely manner to identify ISC deliverables which require stakeholder feedback and support the Community and Stakeholder Manager to gather and respond accordingly to stakeholder responses. |

| Role | Responsibilities |
|---|---|
| Suitably Qualified Professional | Undertake Credit specific, Subject Matter Expert (SME) tasks to support the required level and score for each relevant Credit. |
| Independent Suitably Qualified Professional | Undertaking independent and objective review and audit tasks, reports (notably in compliance with ISC v2.1 Credit Lea-1, DL3.1 |
| 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. |

## 3.3. Key Stakeholders and Stakeholder Engagement

The Project's key stakeholders have been identified and are documents in the Program's Community and Stakeholder Engagement Plan [NWHA-PW-MPL-CSR-NWH-0001]. The Community and Stakeholder Engagement Plan is a live document and additional stakeholders shall be added and/or removed based on the evolving nature of the Project.

Sustainability-related engagement requirements for the first 6 months of the Project are outlined in the stakeholder engagement schedule provided in Table 17.

*Table 17: Sustainability- related engagement schedule for the first 6 months*

| Engagement Name | Engagement Type | Proposed Date | Agenda | Invitees | Aligned IS Credits |
|---|---|---|---|---|---|
| Sustainability Workshop (Internal) | Workshop | April 2024 | • Kick Off<br>Sustainability Objectives and Targets for the project<br><br>Significant decisions definition<br>MCA used for significant decisions<br>Review Materiality Assessment | Sydney Water, AIMT, Discipline Leads, Comms lead, Environment Lead, Design Leads, Sustainability Lead | Lea-1 DL1.1, Lea-2 DL1.3, DL1.4, Ecn-1 D/ABL1.1, D/ABL1.2 |
| Sustainability objectives review (External) | Meeting | July 2024 or closest quarterly meeting | Review and feedback on the proposed sustainability objectives for the project | CRG, SRG | Lea-1 DL2.1, Lea-2 DL3.1 |
| Sustainability Risks and Opportunities (Internal) | Meetings | March-June 2024 | • Review of the Risk and Opportunity Assessment for sustainability<br>• Review of Procurement Risks and Opportunities | Sydney Water, AIMT, Discipline Leads, Risk Manager, | Lea-1 DL1.4, Spr-1 DL1.1 |

| Engagement Name | Engagement Type | Proposed Date | Agenda | Invitees | Aligned IS Credits |
|---|---|---|---|---|---|
| | | | | Sustainability Lead | |
| Sustainability Risks and Opportunities (External) | Meeting | July 2024 or closest quarterly meeting | • Review of the Risk and Opportunity Assessment for sustainability<br>• Review of Procurement Risks and Opportunities | CRG, SRG | Lea-2 DL3.1 |
| Climate and Resilience Workshop (Internal) | Workshop | June 2024 | • Identification of climate, natural hazards and resilience risks and opportunities, shocks and stresses<br>• Treatment Options for identified risks | Sydney Water, Discipline Leads, Engineers from each discipline, Risk Manager, Sustainability Lead | Res-1 DL1.3, Res-2 DL1.1 |
| Climate and Resilience treatment assessment (Internal) | Workshop | June 2024 | Assess treatment options using MCA and decision-making process. | Sydney Water, Discipline Leads, Engineers from each discipline, Risk Manager, Sustainability Lead | Res-1, Res-2 |
| Climate and Resilience Stakeholder review (External) | Document review | July 2024 or closest quarterly meeting | Review and contribute to identification of climate, natural hazards and resilience risks and opportunities, shocks and stresses | CRG, SRG, Any additional local facilities and assets, First responders, Impacted infrastructure, Community support agencies | Res-1 DL2.4, Res-2 DL2.1 |
| Supplier Engagement on Sustainability | Meetings | March-May 2024 | Overview of sustainable procurement strategy and | Potential suppliers | Spr-1 D/ABL3.1 |

| Engagement Name | Engagement Type | Proposed Date | Agenda | Invitees | Aligned IS Credits |
|---|---|---|---|---|---|
| requirements (External) | | | requirements as early supplier engagement | | |
| Sustainability Opportunities workshop (Internal)<br>Merged with the Outperfornace workshops | Workshop | April and May 2024 | • Resource Recovery opportunities<br>• Energy Efficiency Opportunities<br>• Water Efficiency opportunities<br>• Ecological enhancement opportunities<br>• Cultural enhancement opportunities<br>• Social outcomes opportunities<br>• Procurement Opportunities<br>• Innovation opportunities<br>• Legacy opportunities | Sydney Water, Discipline Leads, Engineers from each discipline, Risk Manager, Sustainability Lead, Construction Leads | Rso-1 DL.1.2, Rso-4 DL1.1 Supports the requirements of: Ene-1 DL1.3, Wat-1 DL1.3, Wat-2 DL1.1, Eco-1, Leg-1, Spr-1, 2, 3 |
| Adaptability and End of Life Workshop (Internal) | Meetings | May-June 2024 | Taking (some) of the assessment and analysis developed as part of the resilience work, workshop ideas for improving the adaptability of the asset. | Sydney Water, Sydney Water operators, Design Leads, Construction Lead, Someone with adaptability, disassembly or deconstruction experience | Res-5 DL1.1 |

# 4. Sustainability Processes, Systems and Reporting

## 4.1. Sustainability Requirements in Other Management Plans and Documents

To deliver the sustainability requirements, objectives and targets, relevant sustainability requirements, systems and processes will be included in the following management plans outlined in Table 18.

*Table 18: Sustainability inputs in other management plans*

| Management Plan / Document Name | Document number | Description of sustainability inclusions | Relevant ISv2.1 Credit and Deed requirement |
|---|---|---|---|
| Procurement Management Plan | NWHA-PW-MPL-COM-0008 | Sustainable procurement processes and systems | Spr-1, Spr-2, Spr-3 |

| Management Plan / Document Name | Document number | Description of sustainability inclusions | Relevant ISv2.1 Credit and Deed requirement |
|---|---|---|---|
| Construction Environmental Management Plan | NWHA-PW-MPL-ENV-NWH-0004 | Water discharges, air quality, noise, heritage, water use, ecology, contamination, waste management alignment with the IS Credits | Env-1, Env-2, Env-4, Rso-2, Rso-4, Wat-1, Wat-2, Eco-1, Her-1<br>Alliance Contract KPI B2.1 (b)<br>Alliance Contract KPI B2.1 (f) |
| Community and Stakeholder Engagement Management Plan | TBC | The requirements of Design and As Built Sta-1 and Sta-2 | Sta-1, Sta-2 |
| Risk & Opportunity Management Plan | NWHA-PW-PMT-NWH-005 | Alignment with the requirements of Lea-2 | Lea-2 |
| Aboriginal Participation Plan | NWHA-PW-MPL-HUM-NWH-0003 | Alignment with Wfs-3 | Wfs-3<br>Alliance Contract KPI B2.3 |
| Diversity and Inclusion Plan | NWHA-PW-MPL-HUM-NWH-0006 | Alignment with Wfs-3 | Wfs-3<br>Alliance Contract KPI B2.3 |
| Learning and Development Management Plan | NWHA-PW-MPL-HUM-NWH-0004 | Alignment with Wfs-3 | Wf-3 |
| Riverstone Design Management Plan | NWHA-RS-MPL-DES-NWH-0001 | Significant decisions definition, identification and implementation of sustainability initiatives | Ecn-1, Ene-1, Ene-2, Inn-1, Rso-2, Rso-4, Rso-5, Rso-6, Rso-7, wat-1, Wat-2, Her-1 |
| Rouse Hill Design Management Plan | NWHA-RH-MPL-DES-NWH-0001 | Significant decisions definition, identification and implementation of sustainability initiatives | Ecn-1, Ene-1, Ene-2, Inn-1, Rso-2, Rso-4, Rso-5, Rso-6, Rso-7, wat-1, Wat-2, Her-1 |
| Quality Management Plan | NWHA-PW-MPL-QMS-NWH-0001 | Audit requirements | Rso-4, Env-1, Env-2, Env-4, Wat-1, Wat-2, Eco-1, Her-1 |

## 4.2. Sustainability Approach

The Project has adopted John Holland Group (JHG) systems to deliver on its sustainability commitments. These include the JHG Sustainability Policy, which is supported by the JH Sustainability Framework, and the JH Sustainability Management System, which includes the Innovation and Continuous Improvement Process. Further details on each of these are provided in the sections below.

### 4.2.1. JH Sustainability Framework

The JH Sustainability Framework governs the way the NWHA works through four key pillars (Leadership and Strategy; Our Community and Partners; Built and Natural Environment; and Our People) and 12 Sustainability Elements. The 12 Sustainability Elements focus on the key interactions with our supply chain, customers, communities and the environment throughout the project lifecycle. The Sustainability Framework also enables NWHA to work towards the UN Sustainable Development Goals.

The Sustainability Framework is designed to leverage the NWHA's people and diverse expertise by encouraging a thoughtful, collaborative, interconnected approach to decision making, centring on building resilience. Each component of the Sustainability Framework is interconnected - each of the four pillars and their 12 elements define the NWHA's inclusive and thoughtful approach to decision-making that we see as a 'whole of business' challenge – that is, one we are all working towards together. The Sustainability Framework is provided in Appendix C.

### 4.2.2. JH Sustainability Policy

JH's Sustainability Policy spells out the business' commitment to sustainability through "integrating economic growth, environmental resilience, and social progress as priorities into decision-making at every level of the business, with the ambition to create long-term value."

NWHA endorsed John Holland's Sustainability Policy as the document providing the overarching sustainability principles that the project will operate in accordance with. It provides a framework for setting objectives to maximise the positive social and economic impact for our people and stakeholders that enables long term financial resilience relevant to the context of NWTH. The Sustainability Policy is provided in Appendix D.

### 4.2.3. JH Sustainability Management System

JH's Sustainability Management System (SMS) is applicable to all Infrastructure, Rail and Building Projects and details how sustainability is implemented across all projects, regardless of whether the project is registered to achieve a sustainability rating or not. The SMS 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 JH Intranet and HSES SharePoint Portal.

The SMS, used in conjunction with the Sustainability Framework, provides proven procedures, tools and forms to support the Project to achieve successful delivery with a strong focus on risk and opportunities, resource use (energy, water, waste, materials) efficiency and sustainable procurement. The SMS is provided in Appendix E.

### 4.2.4. Continuous Improvement

#### 4.2.4.1. Operating Rhythm

The operating rhythm is a proactive framework that outlines the regular activities, processes and formal meetings necessary to effectively manage the NWTH Growth Program and establish a high-performing 'one-team' culture. It is designed to ensure that the Senior Representatives, AB, AIMT, Program Management Teams and Project Management Teams (as shown in the functional organisation chart) are aligned on Program KPI's and Project Goals and objectives by planning what formal conversations across the organisation are needed vertically and horizontally, when, at what level and with which team.

Vertical conversations between management levels cascade the delivery strategy down through teams and sub-teams in ever increasing levels of detail. This means that operational teams are empowered and able to drive their own performance and that each sub-team and individual know how they connect to and contribute to collective success. To avoid "silo mentality" horizontal conversations ensure effective cross- team interfaces and that operational teams know where they need to be consistent with the "whole" and where they have freedom of choice.

This also contributes to the governance framework with the essential function is to manage, and deliver scope, quality, time and cost (with particular focus on balancing VFM across all of these elements and delivering Outperformance) additionally these key activities/forums ensure that the Alliance will manage the change process.

#### 4.2.4.2. Continuous improvement Process

Critical to the success of the operating rhythm is the Continuous Improvement (CI) process that the AIMT will support so that the process is fully integrated and managed through the Program and Project Operating Rhythms. All teams at all levels will follow the same CI process. The NWTH Growth Program's Continuous Improvement lead will support the CI process and guide and coach the teams to ensure that we strive to improve from one day to the next. The CI process shown in Figure 3 is based on the operating rhythms and will fit seamlessly into how we work and foster a working environment where we encourage open and honest conversations around performance. This includes both good and poor performance so that the team can learn and progress. These conversations are shared amongst the wider project and program teams to promote learning across the NWTH Growth Program. Our culture is the sum of all our conversations, and building a structure that promotes a high level of quality conversations around performance will lead to an environment where a culture of high performance is encouraged.

#### 4.2.4.3. Frequent collaborative meetings

The frequent collaborative meetings and events shown in Figure 3 facilitate open and honest discussions around performance, enabling continuous improvement across the projects and the program. These discussions also promote recognition and rewards from the Alliance Board, AIMT and Program and Project Management Teams to the wider Program and Project teams.

Frequent meetings and events of the CI process in line with the operating rhythms include:

- Daily project team meetings – design discipline teams, construction area teams/area managers
- Daily project lead team meetings – design discipline leads, construction supervisors/area managers
- Weekly project management team meetings
- Weekly program management team meetings
- Weekly AIMT meetings
- Monthly Alliance Board meetings
- Program events – weekly boardwalks, monthly state of the nation, BBQs and morning teas.

There will also be a series of meetings focussed on milestones, where:

- Milestones are set.
- A session for optimising prior to the start of each milestone.
- After action review meetings held at the end of each milestone.

For further detail on the process see the Continuous Improvement Plan [NWHA-PW-MPL-PMT-NWH-0004].

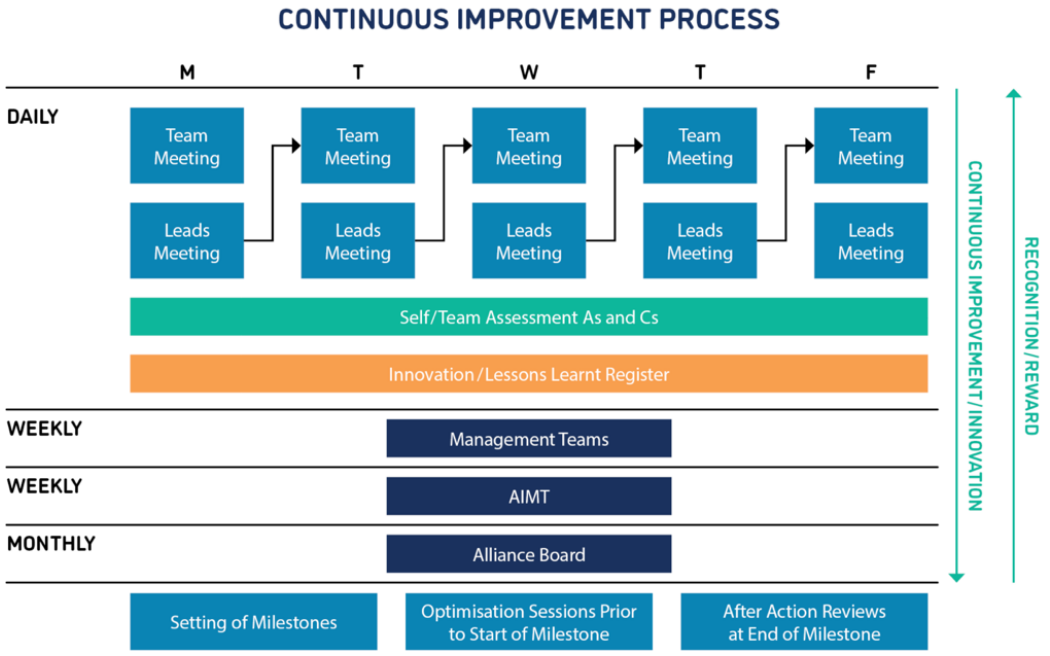



*Figure 3 Continuous improvement process*

#### 4.2.4.4. Continuous Improvement/Lessons Learned Register

Improvements and learnings that can improve the progress and objectives of the program and project will be captured in a live register which will be managed by the Continuous Improvement Lead. A key aspect of the register is that improvements and learnings where applicable will be tracked and followed through by the originator to ensure feedback on the progress is integral to the process. To ensure outperformance opportunities eventuate into genuine Value for Money, cost and/or time savings we will use the following Value for Money opportunity realisation approach see Figure 4.

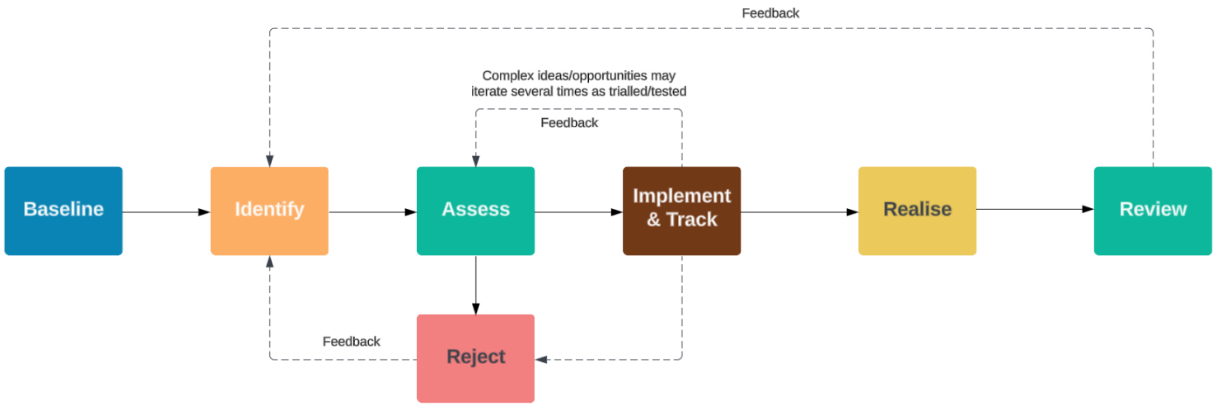



*Figure 4 VfM Opportunity realisation process – a phased approach to realise opportunities identified*

## 4.3. Sustainability Compliance System

A Sustainability Compliance System is in development and will be detailed in a future update. Existing systems that will be utilised on the project are outlined in the sections below.

### 4.3.1. Project Pack Web

The Program will capture energy, water, waste and materials quantity data. All data will be uploaded to Project Pack Web (PPW) for internal and external reporting purposes e.g., National Greenhouse gas and Energy Reporting (NGER).

PPW is a document management and forms system that includes functionality for the collection of data. The system will be used to collect the following sustainability related data for the Project:

*Table 19: Project Pack Web data collection*

| Reporting purpose | Data collected |
|---|---|
| Subcontractor reporting | NGER data (fuels, electricity, greases, lubricants, explosives etc.)<br>Water<br>Materials<br>Waste<br>Contract specific requirements |
| John Holland Corporate reporting | Energy (fuel & electricity)<br>Water<br>Materials<br>Waste |

Resource use reporting will be conducted in accordance with the John Holland Resource Use Reporting Procedure. Once the data is captured from PPW it shall be transferred to PowerBI to facilitate sustainability reporting requirements.

### 4.3.2. PowerBI

PowerBI software will be utilised to present consolidated sustainability progress, subcontractor, JH resource usage data. Subcontractors will report on resource usage monthly through the projects Monthly Sustainability & Environment Report, issued through Project Pack Web. The subcontractor specific reporting procedures are further detailed within a Supply Chain Sustainability Specification (NWHA-PW-SPE-ENV-NWH-0001).

### 4.3.3. File Exchange Platform

All Deliverable will be submitted to SW through InEight and/or SW Delivery Portal.

## 4.4. Reporting

The NWHA will provide sustainability reporting to Sydney Water and AIMT to comply with contract requirements. The Project's sustainability reporting requirements are noted below in Table :

*Table 20: Sustainability reporting requirements*

| Report | Scope | Audience | Frequency/ Timing – Design | Frequency/ Timing – Construction | ISv2.1 and/or Sustainability-related Deed requirement |
|---|---|---|---|---|---|
| Monthly Report – Sustainability Section | Summary of key deliverables, risks, innovations, and opportunities | Sydney Water | Monthly | Monthly | N/A |
| Weekly Boardwalk reports | Work planned and completed last week and next week. | Alliance team | Weekly | Weekly | N/A |
| Quarterly Presentation/Report | Summary of performance against the sustainability objectives and targets | AIMT | Quarterly | Quarterly | Lea-1 DL1.2 |
| Annual Sustainability Report | A report outlining performance against material sustainability topics and map performance against SDGs | Sydney Water and to be made public | Annually | Annually | Lea-1 DL2.2, Lea-1 DL3.1 |
| Design Reports | Status and progress against design package specific attention to sustainability related requirements and initiatives | Sydney Water | At design milestones | As Built updates at end of construction (as required) | N/A |

| Report | Scope | Audience | Frequency/ Timing – Design | Frequency/ Timing – Construction | ISv2.1 and/or Sustainability-related Deed requirement |
|---|---|---|---|---|---|
| NGER reporting | Specific reports will be prepared annually to satisfy JH Group NGER data and reporting requirements. | JHG Corporate | Annually (Financial year relative) | Annually (Financial year relative) | N/A |

## 4.5. Audits

Sustainability-related audits are included within the Project Audit Schedule managed under the Quality Management Plan [NWHA-PW-MPL-QMS-NWH-0001]. The environmental inspections and monitoring schedule is included in the CEMP section 3.9.1 and auditing schedule is outlined in section 3.9.3 [NWHA-PW-MPL-ENV-NWH-0004].

Internal sustainability compliance audits will be conducted at the discretion of the Sustainability Lead throughout design and construction.

Separately, there are requirements for several discipline-specific audits / reviews which arise from the Program's ISv2.1 requirements. All persons conducting audits and reviews will be required to confirm they meet the requirements outlined within applicable program requirements of ISv2.1. This may include identification of qualifications and/or meeting the relevant thresholds of "IS Suitably Qualified". More information on discipline-specific audits is provided in Table 21.

*Table 21: Audit requirements of ISv2.1*

| Credit | Requirement | Timing |
|---|---|---|
| Rso-2 Management of Contaminated Material | ABL2.1 *Project-specific targets have been achieved.*<br>Monitoring and auditing of contamination and remediation outcomes must demonstrate that the project specific targets (DL1.2 or updated in ABL1.1) have been achieved. | As required subject to contamination / remediation management program |
| Rso-4 Resource Recovery and Management | ABL2.1 *Resource output data has been audited.*<br>Reported resource output data (ABL1.2) must be audited annually by a suitably qualified professional. The audit must cover both systems and data and include an objective assessment of the accuracy and completeness of reported resource output information and management practices and performance, and include an audit report covering:<br>• A description of the scope, objectives and criteria of the audit<br>• Evidence of the sampled data and sampling methods used, including examples of raw data used for crosschecking, and error checking methodologies<br>• A statement that the resource output data has been checked to ensure accuracy<br>• The reviewer's or auditor's conclusions on the resource output data, including any qualifications expressed or limitations identified. | Annually during construction |

| Credit | Requirement | Timing |
|---|---|---|
| | Remedial actions to address issues or concerns raised in the audit report must be implemented. | |
| Rso-4 Resource Recovery and Management | ABL2.2 *Resource outputs have been tracked all the way to final destination.*<br>An audit of the movement of resource outputs to their final destination must be undertaken at least once every six months for the full As Built phase.<br>Each audit must cover at least 10% (by volume) of the program's resource output footprint over the six month period. Over the life of the program a minimum of 80% of all resource output streams (i.e., all relevant waste streams for the program) must be audited at least once. | Every six months during construction phase |
| Her-1 Heritage Protection and Enhancement | ABL2.1 *A heritage audit or review has confirmed that mitigation or enhancement activities are successful.*<br>An audit or review must be completed to confirm that mitigation or enhancement actions implemented result in the heritage outcomes identified in design. The audit or review must be undertaken by a suitably qualified professional relevant to the heritage aspects present e.g., archaeology, architecture, geotechnology, history, indigenous values.<br>Evidence must be provided to demonstrate that any corrective actions raised in the audit or review have been addressed. | During construction |
| All | Voluntary Sustainability Audits to identify rating risks and opportunities. | Every 6 months |

The Program shall retain documented information as evidence of the implementation of the audit programme and the audit results.

### 4.5.1. Independent Sustainability Review

In accordance with ISv2.1 Credit Lea-1 DL3.2, the Project will engage an Independent Suitably Qualified Professional (ISQP) to conduct reviews of the Project's sustainability performance reporting on an annual basis.

The following process will be applied for the ISQP reviews:

1. A meeting between the Project and the ISQP will be held to discuss the draft Annual Sustainability Report including timeframes and any questions/clarifications prior to the ISQP reviews. The draft Annual Sustainability Report will then be provided to the ISQP for their review.
2. The ISQP will review the report against the Global Report Initiative (GRI, 2016) in accordance with the requirements of Lea-1.

The findings and feedback from the ISQP's review will be documented in an assessment report:

3. A meeting between the Project and ISQP will be held to discuss the findings and discuss approach and timing for the 'close-out' of actions.
4. Once 'close-out' actions are complete, the Project will provide the ISQP an updated assessment report with evidence/updates against each action.
5. The ISQP assessment will be considered finalised when the ISQP accepts the 'close-out' actions are complete.

## 4.6. Document and Records Management

The Project will ensure that documents and records are managed appropriately in accordance with the expectations in Table 22.

*Table 22: Document and Records Management*

| Expectation | Minimum requirements | Responsibility |
|---|---|---|
| Documentation requirements are clearly defined | The Project must ensure that all documents and records referred to and required to implement the SuMP are controlled and maintained according to the Quality Management Plan requirements.<br>Documents will be managed in accordance with Project naming and numbering conventions including those for revision, stage and status. | Sustainability Lead<br>Document Controller |
| Relevant documents and records will be maintained | Relevant documents and records to be used as evidence will be stored and managed using the Project's SharePoint site and Aconex (TBC). The following records will be stored:<br>Sustainability management records:<br>• Evidence of implementation<br>• Meeting minutes/correspondence<br>• Evidence of review and audit<br>• Reporting and case studies | Sustainability Lead |

### Record and Data Storage and Retention

The sustainability management system will rely on the generation, collection, and retention of a significant amount of data and records to inform and demonstrate compliance with Project requirements, objectives and targets. All data and records to be targeted and collected as evidence for the IS rating submissions will be collected on Workbench. These data and records will be managed in accordance with the Quality Management Plan [NWHA-PW-MPL-QMS-NWH-0001].

# 5. Embedding Sustainability Requirements through the Program phases

## 5.1. Sustainability in Decision Making

The decision-making process in accordance with Ecn-1 will be documented here once developed and approved by the AIMT.

## 5.2. Sustainability in Procurement

The Project is targeting four credits relevant to procurement as outlined in Table 23.

*Table 23: Targeted credits relevant to procurement*

| Credit | Target Level |
|---|---|
| Spr-1: Sustainable Procurement Strategy | Level 3 |
| Spr-2: Supplier Assessment and Selection | Level 2 |
| Spr-3: Contract and Supplier Management | Level 2 |
| Rso-7: Sustainability Labelled Products and Supply Chains | Level 0.67 |

The explicit processes and management of the Project's strategy against each of the ISv2.1 supply chain Credits, including all Must Statements, will be documented with three key Project documents (and a suite of supporting documents):

- Procurement Management Plan [NWHA-PW-MPL-COM-NWH-0008]
- Program Supply Chain Risk & Opportunity Assessment [NWHA-PW-RSA-ENV-NWH-0001]
- Supply Chain Sustainability Specification [NWHA-PW-SPE-ENV-NWH-0001]

Compliance and assurance against each targeted level, benchmark and must statement of IS v2.1 Credits, specific to sustainable procurement shall be managed via the Sustainability Compliance System (refer to Section 4.3 of this plan) and outlined in the Procurement Management Plan [NWHA-PW-MPL-COM-NWH-0008].

The Project will ensure sustainable procurement requirements are met, aligned with contractual requirements and benchmark requirements per ISv2.1 Sustainable Procurement Credits, by implementing the following process:

1. Engagement with Project Procurement & Commercial team (1:1 meetings, workshops);
2. Conduct a supply chain Risk and Opportunity assessment on the Program's suppliers of "material" goods and services, in accordance with ISO 20400;
3. Incorporate sustainability requirements into requests for tender (document no. TBC);
4. Establish and include sustainability criteria in tender evaluation process;
5. Incorporate successful tenderer sustainability commitments into contractual agreements and sustainability actions plans;
6. Engagement with suppliers at each stage of the procurement process;
7. Implement ongoing reporting, review and supplier management processes.

This process and the related expectations are detailed in Table 24 below. Further details regarding supplier agreements and compliance are provided in the following sub-sections.

*Table 24: Sustainable Procurement Expectations Table*

| Expectation | Minimum requirements | Responsibility | Deliverables |
|---|---|---|---|
| Early and effective procurement planning | Sustainability team will provide support to the Procurement and Design teams including:<br>• Articulate the Sustainability requirements for the Project (e.g., contractual and/or any rating tool requirements) to potential suppliers prior to any formal market engagement in accordance with Credit Spr-1 Level 3.<br>• Facilitate the supply chain risk & opportunities assessments in accordance with ISO 20400 and ISv2.1 Credit Spr-1. | Sustainability Lead, Commercial / Procurement Manager | Meeting minutes, presentations, ITT deliverables |

| Expectation | Minimum requirements | Responsibility | Deliverables |
|---|---|---|---|
| | • Assist in the development of procurement packages.<br>• Participate in tender interview meetings for key packages.<br>• Participate in the post tender clarification process | | |
| Sustainability requirements included in Scope of Works & Contracts | A Supply Chain Sustainability Specification will be prepared and incorporated into ITT processes, scope of works, sub-contracts and supply agreements. Supply Chain Sustainability Specification – [NWHA-PW-SPE-ENV-NWH-0001] will be amended depending on the nature of the sub-contract or supply agreement. | Sustainability Lead, Commercial Manager | Sustainability clauses in contract |
| Sustainability considerations incorporated into supplier selection processes | Subcontractors and suppliers during the tendering process are required to complete a sustainability questionnaire as part of their tender returnables prior to selection. Sustainability policies and evidence of implementation will be requested. Supplier sustainability tender responses will be reviewed and included in the subcontractor/supplier selection process. | Sustainability Lead, Commercial Manager, Project Engineers | Supplier sustainability questionnaires<br>Procurement MCAs |
| Engagement with suppliers | Subcontractors and suppliers engaged by the Project throughout the tender, contracting and delivery process to ensure they are familiar with and meeting Project sustainability requirements and expectations, and are encouraged where possible to meet or exceed expectations in relation to their contracted deliverables. | Sustainability Lead, Commercial Manager, Project Engineers | Sustainability clauses in contract |
| Suppliers must report sustainability performance | Suppliers will report periodically on sustainability performance metrics as outlined in their contractual requirements. Compliance with reporting and documentation requirements will be monitored and corrective actions taken where non-compliant. | Sustainability Lead, Commercial Manager | Sustainability performance reporting |

### 5.2.1. Supplier Agreements

All suppliers (includes partners, consultants, sub-contractors) working on the Project will be required to:

- Understand the NWTH sustainability requirements and follow instructions issued by Project management and supervisory personnel.
- Nominate sustainability representatives to liaise with NWHA Sustainability Team with respect to sustainability requirements for their activities and take responsibility for these requirements.
- Adhere to the Project Management System and sustainability program as it applies to their operations.

- Be willing to undergo audits and inspections as may be required by the Project team to check compliance with Project sustainability requirements.
- Provide sustainability documentation to allow tracking of relevant sustainability actions including system compliance (quality, environment, safety), risk management, ethical behaviour, social responsibility, supply chain management, resource use (materials, energy, fuel and water consumption) and waste management.

### 5.2.2. Supplier Performance

Sustainability performance of suppliers will be monitored on a regular basis through a review of sustainability information submitted each month. This monitoring process will allow trends and deviations from specifications and commitments to be identified, and corrective actions developed and implemented. This monitoring may be supplemented by audits and inspections by the Project team to check compliance with Project sustainability requirements.

### 5.2.3. Certification

Suppliers with any certifications (or approved environmental product labelling under ISCv2.1 Rso-7) will be required to supply these certificates, per product supplied to the contractor.

- Certified Suppliers for key construction materials include:
- Steel – certified under the Australian Certification Authority for Reinforcing Steels (ACRS) or a similar association or organisation; manufacturer using energy-reducing processes.
- Timber - recycled timber or from Forest Stewardship Council (FSC) certified suppliers. This will include suppliers of timber adhering strictly and consistently with the chain of custody requirements that form part of the FSC certification.
- Concrete - members of the Cement Concrete and Aggregate Association of Australia (CCAA) or a similar association or organisation
- Polyvinyl chloride (PVC) - signatories to the Vinyl Council of Australia Product Stewardship Program or a similar program.

## 5.3. Risks and Opportunities

The Project's risk and opportunity management framework is governed by the Project's Risk Management Plan. This plan specifies the processes and procedures for the identification, assessment and selection of treatment/implementation measures for risks and opportunities across the Project's lifecycle (i.e. design, construction and operation/hand-over).

This plan has been tailored for the NWTH project and informs activities aligning with the requirements of ISv2.1 Credits Lea-2 Risk and Opportunity (Level 1 and Level 2). This section seeks to summarise the Risk Management Plan as relevant to the assessment of 'sustainability' risks and opportunities.

Environment, Sustainability and Stakeholder/Community risks and opportunities are assessed via the ESC R&O Register. The R&O Register addresses program wide risk and opportunity and 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). Risks and Opportunities that are identified as being rated 'high and above' are then transferred into the Project R&O Register.

The ESC R&O Register will be updated/reviewed quarterly, with the Project R&O being updated/reviewed approximately every 6 months 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 AIMT (or representative)

During the workshop the multidisciplinary team will discuss review the Project 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;
- Persons (or roles) responsible for implementing the treatment options, measurement, monitoring and reporting (where required).

An example / template  ESC R&O Register will be provided in the next update of this plan once it is finalised. The Program will ensure risks and opportunities are reviewed by a multidisciplinary team and updated quarterly as the minimum to satisfy the above John Holland and ISv2.1 Credit Lea-2 requirements as documented within the Risk & Opportunity Management Plan [NWHA-PW-MPL-PMT-NWH-0005].

Compliance and assurance against each targeted level, benchmark and must statement of ISv2.1 Credit Lea-2 is managed via the Sustainability Compliance System (refer to Section 4.3 of this plan).

## 5.4. Sustainability in Design

The Sustainability team will play an active role with the Design team to assist with embedding Sustainability in Design (SuID) principles into each design package. The team will:

- Participate in relevant design team meetings.
- Work with each design discipline to ensure sustainability requirements, inclusive of specific ISv2.1 Credit requirements are incorporated into the relevant design packages / reports and specifications.
- Coordinate with the design team on design related ISV2.1 Credits and Program design related commitments, objectives and targets.
- Coordinate and facilitate SuID modelling for materials (Life Cycle Assessment), energy (energy model covering Scope 1&2 emissions), water (water footprint model), environmental discharges (noise, vibration, lighting, flood, stormwater and air quality) and climate (based on climate projections).
- Facilitate and participate in various multi-disciplinary design workshops (internal and external as required) to identify sustainability opportunities that will allow the Program to achieve sustainability targets and objectives in design, particularly for the key themes of materials, energy, water & innovation.
- Facilitate and coordinate SuID stakeholder engagement in collaboration with Design team and Community and Stakeholder team.
- Evaluate opportunities using the multi-criteria analysis (MCA).

### 5.4.1. Sustainability in Design Approach

The Sustainability in Design (SuID) expectations and deliverables are outlined in Table 25 below.

*Table 25: SuID expectations and deliverables*

| Expectation | Minimum requirements | Responsibility | Deliverables |
|---|---|---|---|
| Define sustainability requirements | Sustainability compliance requirements for the Project are clearly documented in this Plan and via discipline-specific checklists. This includes sustainability rating benchmarks being targeted, as well as specific design deliverables (e.g., percentage (%) materials reduction or incorporation of climate adaptation measures). | Sustainability Lead<br>Environment Lead<br>Design Leads<br>Deliver Manager | This Plan |
| Link sustainability requirements to design packages | Sustainability requirements (notably Project objectives and targets and ISv2.1 design specific Credits) for key design packages will be articulated and communicated with relevant design leads. This involves:<br>• Discussing sustainability requirements and identifying opportunities at Interdisciplinary Design Workshops<br>• Updating and monitoring the status of sustainability deliverables and documentation required during the Design Phase to evidence the delivery of sustainability requirements | Sustainability Lead<br>Design Leads | Design Package Report Reviews<br>Design Reports<br>Design Modelling<br>Design Drawings |
| Sustainability Lead included in Management Meetings | The Sustainability Lead will be included both the Rouse Hill and Riverstone weekly Management Meetings. | Sustainability Lead<br>Construction Mangers<br>Design Leads | Sustainability actions in Action Register |
| Identify and assess sustainability risks and opportunities | Sustainability risks and opportunities will be assessed and documented in the Project Risk & Opportunity Register and Outperformance Tracker and any initiatives identified will be documented in relevant registers (i.e. Resource Efficiency Opportunities Register). | Sustainability Lead<br>Design Leads<br>Program Team | Project Risk Register<br>Project Opportunities Registers |
| Support and review sustainability outcomes and evidence | Review and support will be established. This includes:<br>• Sustainability as an ongoing agenda item for relevant design meetings. | Sustainability Lead<br>Design Leads<br>Project Team | Meeting minutes<br>Sustainability Compliance report |

| Expectation | Minimum requirements | Responsibility | Deliverables |
|---|---|---|---|
| | • The sustainability team as key members of the design review process and workflows to ensure a consistent approach and expected level of accuracy and detail of sustainability compliance in design documentation. | | |

## 5.5. Sustainability in Construction

Sustainability will be embedded into construction by establishing a collaborative working environment between the Sustainability Lead and each Project functional lead so that sustainability requirements (as detailed within this plan) are understood and specified across delivery documentation, including:

- Project, Manager, Alliance Manager and AIMT – Decision making process, risk and opportunity register.
- Commercial and procurement – supply chain risk and opportunity assessment, invitation to tender, subcontractor/supplier evaluation, contracts, performance management (see section 5.2).
- Construction – Inspection test plans, procurement of materials, resource use efficiency, innovation.
- Health, Safety and Environment – Leading best practice safety and environment outcomes, prevention of pollution / discharges and enhancement of the environment including waste, ecology, natural and cultural heritage.
- Communication and Stakeholder – effective consultation, stakeholder management.
- People (HR) & Health & Safety – Health and wellbeing indicators, training and personnel development in respond to skills gap assessment, social inclusion, and diversity.

### 5.5.1. Non-conformity and Corrective Action

Sustainability will be embedded into the Quality Management Plan and Project Management Plan for the Project so that that sustainability deliverables are appropriately implemented, assessed and reported.

In the event that a non-conformity occurs (internally or with the Project supply chain), the Project will:

- React to the non-conformity and, as applicable:
    - take action to control and correct it.
    - deal with the consequences, including mitigating adverse sustainability impacts.
- Evaluate the need for action to eliminate the causes of the non-conformity, in order that it does not recur or occur elsewhere, by:
    - reviewing the nonconformity
    - determining the causes of the nonconformity
    - determining if similar non-conformities exist, or could potentially occur.
- Implement any action needed.
- Review the effectiveness of any corrective action taken.
- When a non-conformance is identified, actions, close-out details and verification will be documented in a non-conformance register in the Program's Quality Management System. Sustainability non-conformances, corrective and preventative actions will be managed by the Sustainability Manager and reported to the LT.
- If the non-conformity is traced to a supplier-related issue, then the following actions be considered:
    - The need for a supplier audit or inspection to trace the source and extent of the non-conformance and its impact on the Project.
    - The need for the supplier to immediately implement corrective action to prevent a recurrence.

- The need for the supplier to demonstrate to the Project that the corrective action has been effective in addressing the non-conformity and preventing its future recurrence.

## 5.6. Sustainability in Commissioning and Completion Phase

Sustainability will be embedded into the commissioning and completion phase through the following activities:

- Initiatives to improve the sustainability outcomes of the plant operations will be included in handover documents.
- A summary report outlining the sustainability initiatives and features of the plants will be developed for the operators.
- Opportunities to reduce water use during testing will be identified and implemented.
- Sustainability processes and approaches will be documented through the Commissioning and Completion Management Sydney (TBC).

# 6. Training, Communication and Knowledge Share

## 6.1. Training

The Project is committed to the ongoing development of its staff and workforce in relation to sustainability knowledge. The People & Culture Manager (or similar SQP), supported by the Sustainability Lead, will assess the following at the start of the Program and as required:

- Determine the necessary skills of persons doing work under its control that affects its sustainability performance and its ability to fulfil its compliance obligations.
- Ensure sustainability is a priority within contractor business operations as a key criterion for selecting contractors.
- Ensure that these persons are competent on the basis of appropriate education, training or experience.
- Ensure that these persons understand the Program's commitments and obligations to sustainability through project specific inductions.
- Determine training needs associated with sustainability.
- Where applicable, take actions to acquire the necessary competence, and evaluate the effectiveness of the actions taken.

The Project will undertake the above initiatives to provide effective sustainability training, awareness and communication in alignment with the Project Training Management Plan [NWHA-PW-HUM-NWH-0005]

The People & Culture Manager shall be responsible for workforce training needs are satisfied in accordance with the Learning & Development Management Plan [NWHA-PW-HUM-NWH-0004]. The Learning & Development Management Plan has also been written with special attention to ISv2.1 Credit Wfs-1 - Jobs, Skills and Workforce Planning which should be read in conjunction with this plan.

Compliance and assurance against each targeted level, benchmark and must statement of ISv2.1 Credit Wfs-1 is managed via the Sustainability Compliance System (refer to Section 4.3 of this plan).

## 6.2. Communication and Knowledge Share

The Project has established the processes needed for internal and external communications relevant to sustainability. When establishing its communication processes, the Project has:

- Considered its compliance obligations as detailed within ISv2.1 Credit Lea-3, Knowledge Sharing.
- Ensured that sustainability information communicated is reliable.

Internal knowledge sharing will occur throughout the duration of the Project through Project newsletters/ updates, training and induction and formal knowledge sharing sessions. These will be discussed and developed with the Project Communications team. Internal communication measures will include:

*Table 26: Internal Sustainability communication expectations*

| Expectation | Minimum requirements | Responsibility | Deliverables |
|---|---|---|---|
| Internal sustainability communications delivered | Project team meetings - Sustainability will be added as an agenda item in key Project team meetings | Sustainability Lead, Project Team | Team meeting minutes, presentations & attendance records. |
| | Project team training and briefings – Trainings and briefings will be provided to the design and construction management team to provide a wider understanding and commitment against the Project objectives, targets and initiatives supporting sustainable outcomes. | | As above. |
| | Toolbox talks and prestart meetings of the wider workforce - The Sustainability Team will coordinate toolbox presentations and awareness sessions to create a high-performing sustainability culture that is built into the Project as required. | | Toolbox talk records of attendance & presentations. |
| | Project sustainability performance reporting - The Project will report to the Client and JH on sustainability performance against objectives and targets through the monthly report and quarterly at the JH leadership team meetings. | | Project Monthly Report<br>Quarterly Presentation |

External knowledge sharing will be undertaken by sharing lessons learned and achievements via the Alliance lessons learnt process and through the John Holland Corporate sustainability knowledge sharing forum. External communication and knowledge sharing measures are outlined in Table 27 below:

*Table 27: External Sustainability communication expectations*

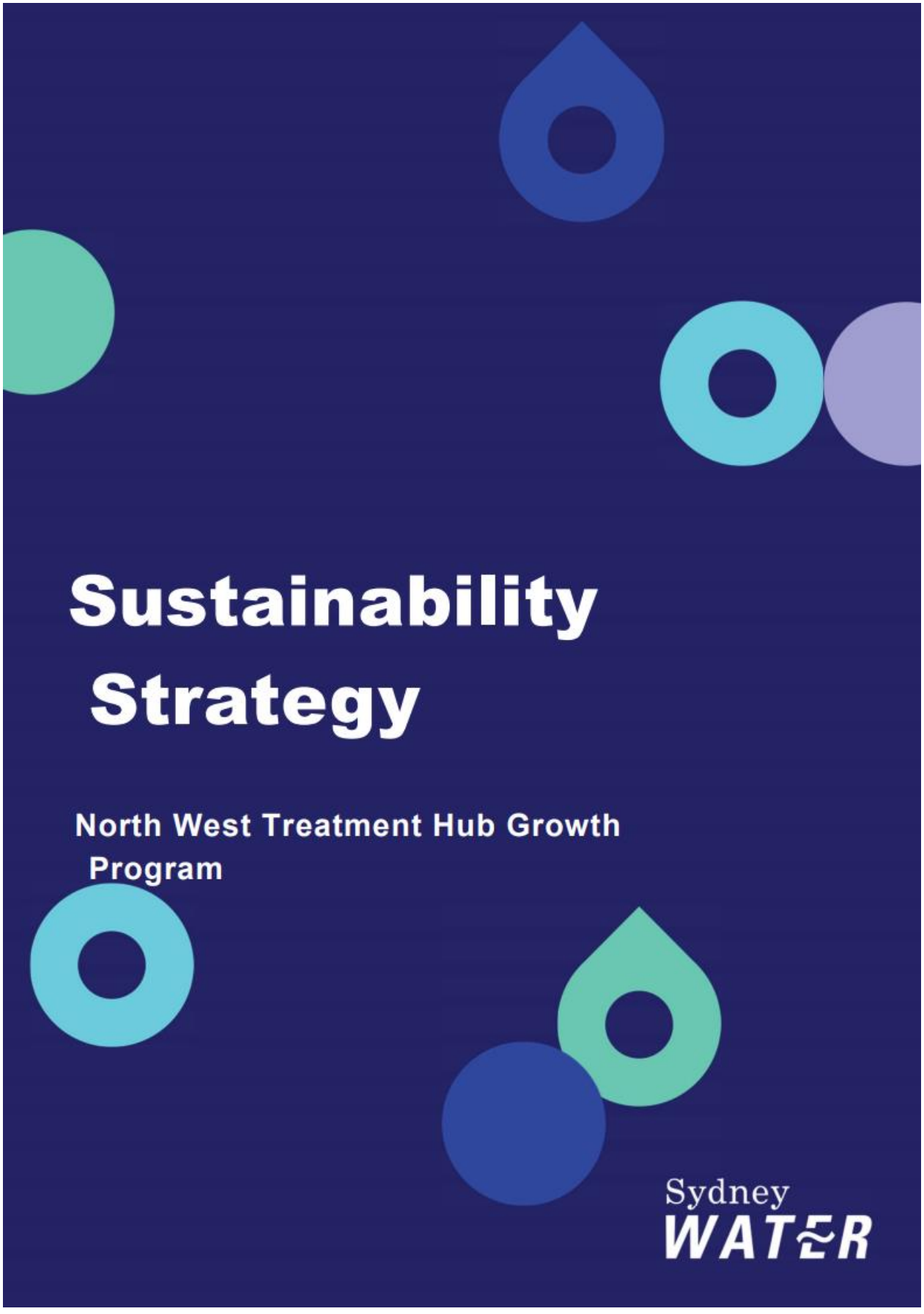
| Expectation | Minimum requirements | Responsibility | Deliverables |
|---|---|---|---|
| External sustainability communications program developed and implemented. | John Holland Infrastructure and Major Projects Sustainability Forums –The Sustainability Manager will participate in the forum to share knowledge. | Sustainability Lead, Stakeholder Manager, Topic SME | Network meeting minutes |
| | Case studies, lessons learnt/HSES SharePoint site - The Project will communicate learnings and Project outcomes with the Alliance, Alliance partners & ISC | | Case studies |

| | | | |
|---|---|---|---|
| | Rating Scheme bodies - Coordinate directly with ISC where technical clarification is required | | |
| | Conferences / forums hosted by Client, published articles, Government authorities, selected industry conferences/ journals, professional online platforms (LinkedIn), academic journals | | |

External communication and knowledge sharing will be approved by Sydney Water and shall be conducted in compliance with the content, review and approval procedures as detailed within the Community and Stakeholder Engagement Plan [NWHA-PW-MPL-CSR-NWH-0001].

Compliance and assurance against each targeted level of ISv2.1 Credit Lea-3, benchmark and must statement is managed via the Sustainability Compliance System (refer to Section 4.3 of this plan).

# Appendix A NWTHGP/Sydney Water Sustainability Strategy



# Appendix B IS Rating Scheme Details

## Infrastructure Sustainability Council

The Infrastructure Sustainability (IS) Rating Scheme has been developed by the Infrastructure Sustainability Council (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.

### The IS Rating Scheme

The Infrastructure Sustainability (IS) Rating Scheme has been designed to help infrastructure deliver the best possible environmental, social, and economic outcomes. The IS Rating Scheme is independently assessed and rewards sustainability at each stage of the infrastructure lifecycle, from early planning through to design and construction, and into the operational state.

In accordance with the above sections of this plan, the Program shall achieve an IS v2.1 Design and As Built rating. In accordance with the Executed Alliance Contract and the IS rating award levels the Program shall achieve a minimum of 40 verified points out of 100 points, with 10 bonus points available for innovation, resulting in a minimum of a “Silver” rating.

### IS Rating Process

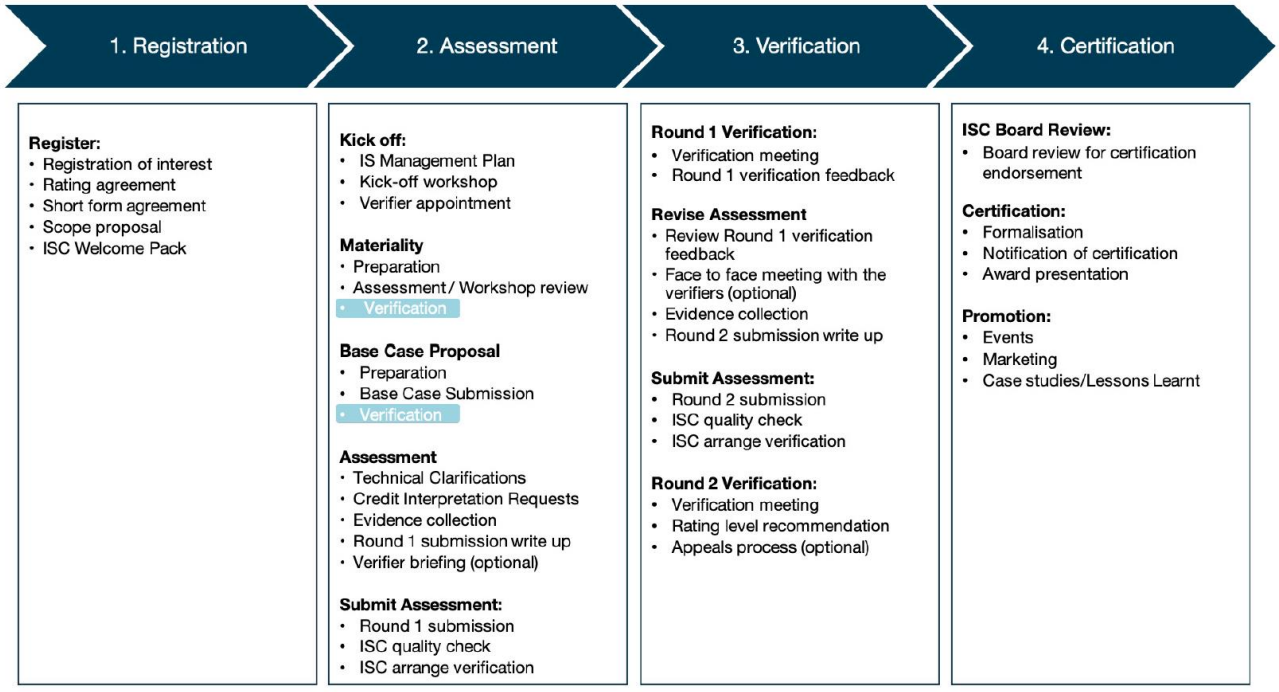



*Figure 5: IS rating process*

### Registration

Registration is the first stage in the rating process. This stage establishes a formal agreement between the Infrastructure Sustainability Council and the Registrant. Key activities that make up the Registration stage include:

Registration of Interest (RoI)
Completion of the IS Rating Agreement
Completion of the Project Detail Form.

The registration of the IS rating covering both Riverstone WWTP and Rouse Hill WRP was completed on 22 January 2024 (refer to Table 15).

### Assessment

The Assessment stage requires the Program to measure and evaluate their sustainability performance and determine their rating achievement using the IS Rating tool and associated guidelines. Assessment will continue as the Project or asset proceeds through the relevant infrastructure life cycle phases (design and construction in this case). The key dates and activities within the assessment stage are summarised in Table 15.

### Base Case and Actual Case

In the Energy and Carbon, Water and Resource Efficiency and Management categories, several Credits adopt an approach of modelling and measuring the performance of the project or asset (in terms of resource consumption or greenhouse gas emissions) and comparing it to a business as usual (BAU) footprint.

The Base Case approach refers to the development of a business-as-usual footprint for energy and carbon, resource inputs, and water use. Footprint means the quantified impact of a certain issue across the infrastructure life cycle. The Program is rewarded based on the percentage reduction that is achieved between the Base Case and their actual design.

#### Base Case

The Base Case is a suitable early design accepted by key stakeholders as a representative of the original concept for Riverstone WWTP and Rouse Hill WRP accompanied by a set of BAU assumptions regarding technologies, materials sourcing and composition. Very early designs may be too high level to allow footprints to be estimated, while later designs may already incorporate beyond-BAU sustainability initiatives whereby such inclusion should be recognised in any measurement of project performance. In the case that a later design is chosen that incorporates beyond-BAU initiatives, a process of ‘extracting’ these initiatives from the selected design can be applied to establish a Base Case.

#### Actual case

For the Design component of the rating, the actual case is the design that is issued for construction at the end of the design phase. For the As Built component of the rating, the actual case is the as built design at the end of construction.

### Technical Clarifications and Credit Interpretation Requests

During the course of the assessment phase projects may find challenges or situations where the manual needs to be interpreted or clarified for their specific context. In these cases, projects can resolve their technical queries by submitting a Technical Clarification (TC) or Credit Interpretation Request (CIR) to ISC.

### Assessment submission

Once the project/asset has reached the end of the assessment stage (for the Design component of the rating this would be at the end of the design, for the As Built component of the rating this would be close to the end of construction), the finalised assessment needs to be submitted to ISC for verification. The submission needs to include:

- a completed IS Scorecard including the level targeted for each Credit
- a completed set of Credit Summary Forms (CSF)
- all necessary evidence.

### Verification & Certification

The verification of the project or asset assessment will be completed over two rounds for each Design and As-Built stages of the rating. Once the rating receives its As-Built rating it shall be certified at a particular rating level e.g. “Silver”.

## Structure of the IS rating

### Themes, categories, Credits and must statements.

The IS Rating Scheme covers four themes: Governance, Economic, Environmental and Social. Each theme has one or more categories, and each category has one or more Credits. Each Credit (other than

Innovation) has up to three levels of achievement and addresses a specific aspect of sustainability performance.

### Scoring and Materiality

To achieve a rating and to measure performance the IS Rating Scheme has a point scoring system that is adjusted to fit the profile of each asset. The highest number of points a project can achieve is 110 points. Default points are allocated to every Credit with the sum total equalling 110 points.

The materiality assessment is a compulsory first step in the IS rating process and identifies the most important (material) sustainability issues for infrastructure projects and assets, and results in an adjustment to the default Credit scores within the IS Rating Tool to focus the tool on delivering outcomes in the context of the project or asset.

The overall score is the sum of the points verified as achieved in all Credits. The rating award level is assigned based on the overall score. The materiality assessment is also an opportunity for projects to identify Credits that will not form a part of their rating.  There are three main steps in the materiality assessment process:

- Preparation.
- Assessment
- Verification.

Once the Materiality Assessment is completed, the IS Scorecard calculates a Materiality Score from 0 to 4 as follows:

- 0 Not material (scoped out)
- 1 Low materiality (half as important as moderate)
- 2 Moderate materiality
- 3 High materiality (50% more important than moderate)
- 4 Very high materiality (twice as important as moderate).

The Materiality Assessment must be verified before the end of the establishment period of the Project. The establishment period is a grace period provided by ISC to facilitate project sustainability mobilisation. The establishment period for the Project concludes on 22 June 2024. Key dates regarding the Materiality assessment and IS rating process for the project are summarised in Section 2.3.1 Key Rating Milestones.

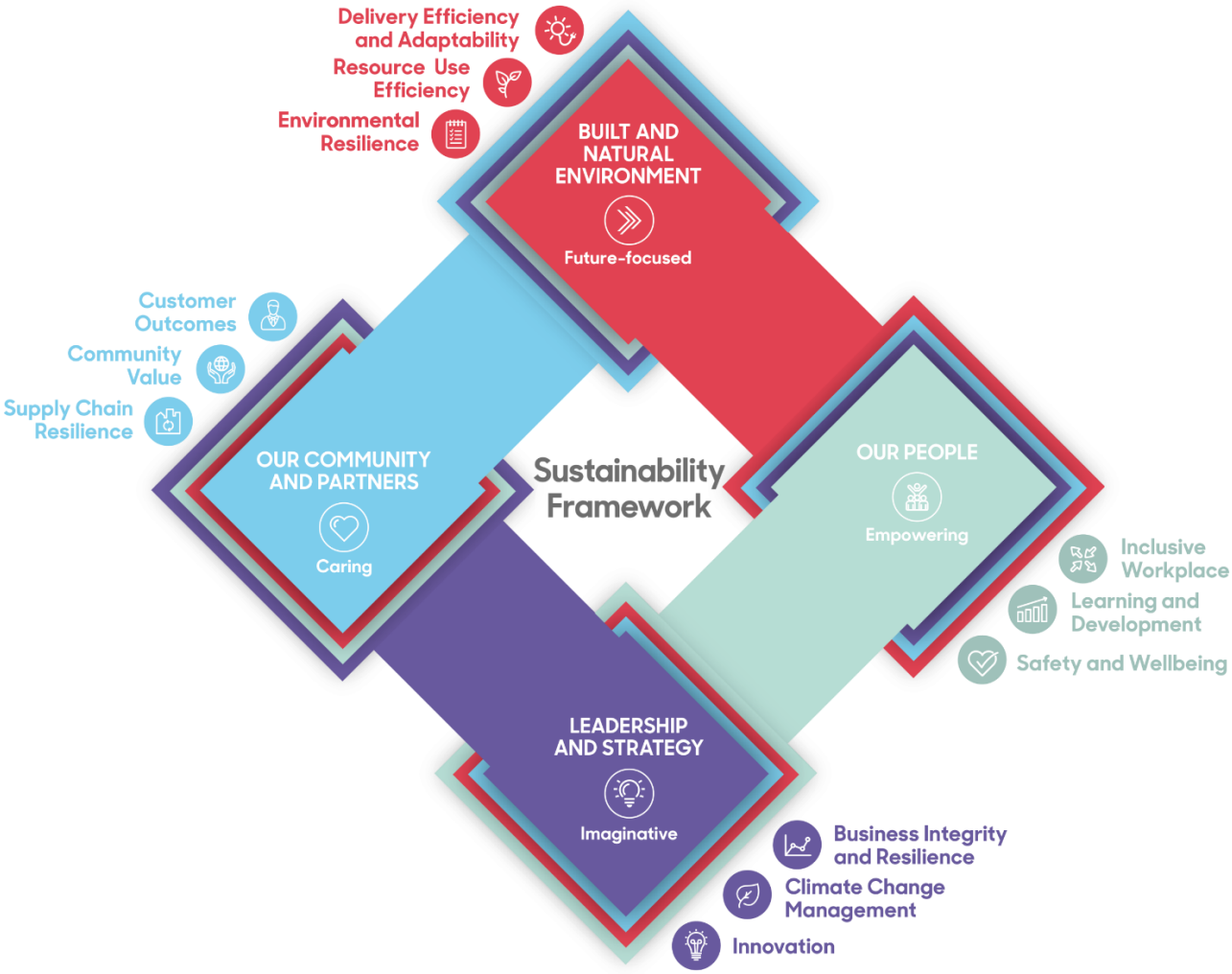
### Scales Credits

Certain Credits in the IS Rating Tool are ‘scaled Credits’ e.g. Ene-1, Rso-7. This means that fractions of points are achievable on a sliding scale depending on the project results e.g. level of carbon reductions. This approach encourages the pursuit of every incremental improvement possible.

### Evidence

Evidence is required for each Credit criterion, to demonstrate that the Credit performance benchmarks (levels) are being met. Guidance on evidence can be found within each Credit.

# Appendix C JHG Sustainability Framework



# Appendix D JHG Sustainability Policy

Policy

JOHN HOLLAND

## Sustainability Policy

### Our commitment

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

### Our approach

John Holland will undertake its business in a manner that maximises positive social and economic impact for our people and stakeholders. We are adopting a resilient and enduring strategic approach to meet and mitigate the existing and emerging challenges for society and our infrastructure environment. John Holland acknowledges that sustainability enables long term financial resilience.

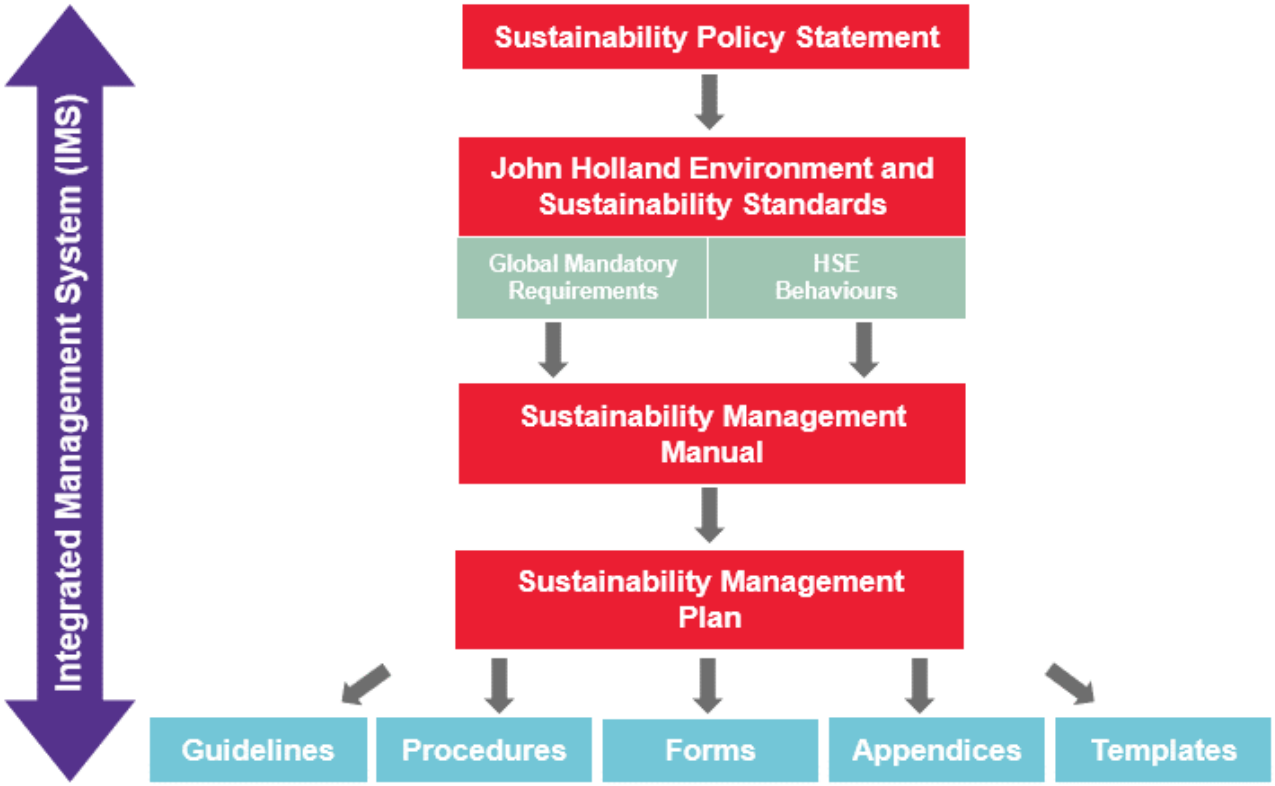
### Sustainability Policy in practice

- Create a sense of place for communities, by making a positive and meaningful difference to the community by genuinely engaging with the community and stakeholders
- Work closely with our customers to achieve optimal and resilient outcomes for users and society
- Decision making to integrate economic, social, environmental and governance aspects, and seek to achieve positive outcomes in each
- Minimise whole of life asset impact by future proofing our assets and responding to climate change
- Address environment considerations in a manner that is sensitive to the needs of our stakeholders and the environment, creating enhanced environmental outcomes wherever practical
- Be recognised as an industry leader in making our workplaces safer through innovation, collaboration and effective planning and management of risks
- Enhance workforce health and wellbeing and inclusion and diversity, through employee empowerment to deliver sustainable outcomes
- Source sustainably and ethically, including prioritising local industry participation, social procurement initiatives and a commitment to avoiding modern slavery
- Encourage innovation amongst our delivery teams and supply chain to achieve sustainable outcomes
- Manage all activities ethically, measuring and reporting the sustainability performance of the project
- Govern for sustainability by implementing project systems and processes to ensure the effective and efficient delivery and operation of the project
- Support the UN Sustainable Development Goals

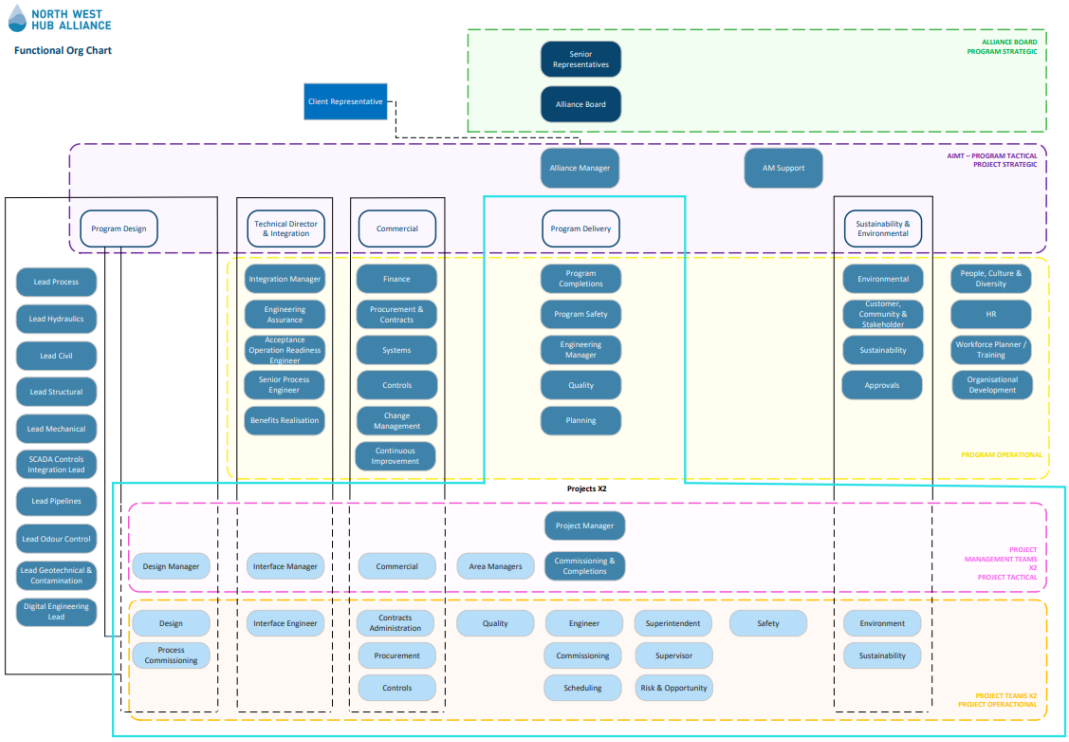
**Joe Barr**
Chief Executive Officer
John Holland Group Pty Ltd
January 2023

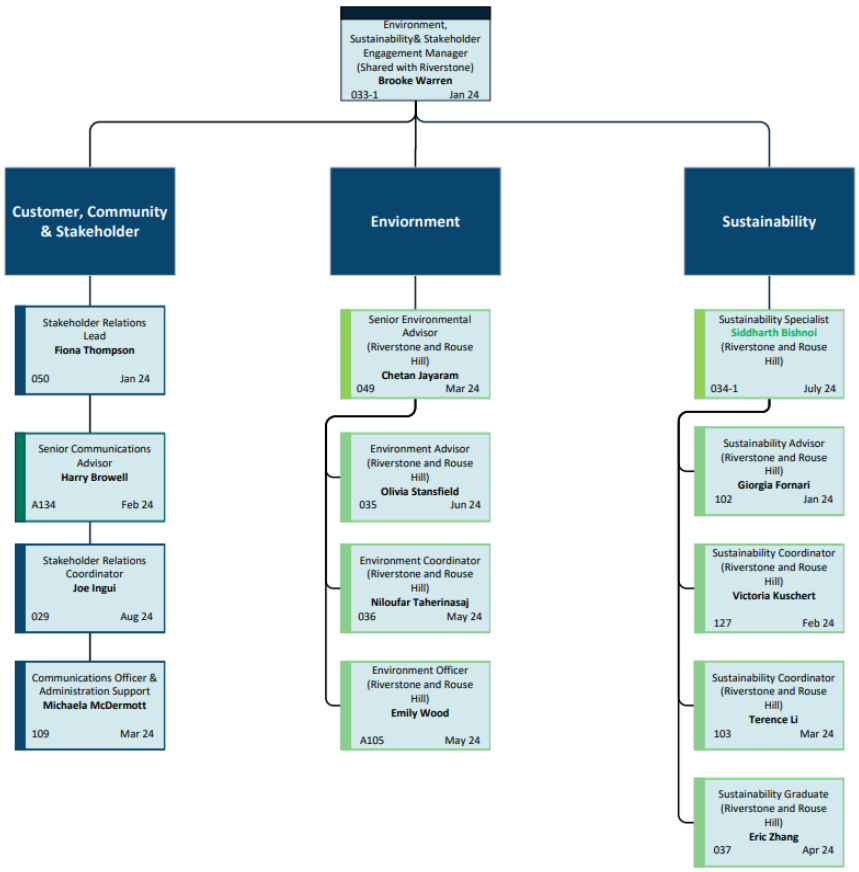
Caring
Empowering
Imaginative
Future-focused

# Appendix E JHG Sustainability Management System



# Appendix F Organisational Chart



# Appendix G ISv2.1 Compliance Table

This Sustainability Management Plan (SuMP) is intended to satisfy Sydney Water contractual requirements and the requirements of Infrastructure Sustainability Council's (ISC) Infrastructure Sustainability rating v2.1 (ISv2.1), and in particular credit Lea-1. This SuMP shall be implemented throughout design and updated for construction and commissioning. It shall be reviewed and endorsed by the Alliance Integrated Management Team (AIMT) and in alignment with Lea-1 DL1.1.

| Requirement | Section in this document |
|---|---|
| Project scope and Boundary | Section 1.2 Project Description |
| **Lea-1 DL1.1** Sustainability objectives, targets, responsibilities and a reporting framework have been developed (or reviewed and updated). | Section 2.2.3 Updated Project Sustainability Objectives and Targets |
| **Ruling Lea-1.01 (TC)** Sustainability objectives and SMART sustainability targets must respond to the project's most important sustainability topics (informed by the verified materiality assessment – including UN SDG impacts and priority Credits). If verification was yet to occur at the time of establishing targets, a working IS or comparable materiality assessment involving an appropriate multi-disciplinary team is acceptable. | Section 2.2.2 Materiality Assessment<br>Table 8: Three Materiality Assessment scenariosMaterial *IS Credits and Associated Material UNSDGs*<br>Table 7: Most material IS Credits and their associated SDGs |
| **Lea-1 DL1.1** The sustainability objectives and targets must be approved by the senior management team. | Section 2.2.3.4 Approval and Publishing of Sustainability Objectives and Targets |
| **Lea-1 DL2.1** Sustainability objectives and targets have been reviewed with key external stakeholders and include their input. | Section 2.2.1 North West Treatment Hub Growth Program Sustainability Strategy<br>Table 17: Sustainability- related engagement schedule for the first 6 months |
| **Lea-1 DL1.2** A sustainability management plan must be developed for the design and construction phases and include the following:<br>- Project description, including the project program and IS Rating boundary<br>- The project's most important sustainability topics (at least those IS credit categories identified as very high and high in the verified materiality assessment)<br>- Sustainability goals or objectives and targets (as per DL1.1) and actions plans relevant to the project<br>- Roles and responsibilities for overall sustainability management and all sustainability targets<br>- Reporting and review requirements across the project life cycle. | Section 1.2 Project Description<br>Section 2.2.2 Materiality Assessment<br>Section 2.2.3 Updated Project Sustainability Objectives and Targets<br>Section 3.2 Project Roles and Sustainability Responsibility |
| **Lea-1 DL1.2** Performance against sustainability objectives and targets must be reported to the senior management team on a quarterly basis for the duration of the design phase. | Section 4.4 Reporting |
| **Lea-1 DL2.1** Sustainability objectives and targets have been reviewed with key external stakeholders and include their input. | Table 17: Sustainability- related engagement schedule for the first 6 months |
| **Lea-1 DL2.2** Sustainability targets are publicly stated and performance against these targets is publicly reported. | Section 2.2.3.5 Approval and Publishing of Sustainability Objectives and Targets<br>Section 4.4 Reporting |
| **Lea-1 DL3.1** Public reporting of sustainability performance includes contribution to the UN SDGs. | Section 4.4 Reporting |

| Requirement | Section in this document |
|---|---|
| **Lea-1 DL3.2** Sustainability performance reporting has been independently reviewed by a suitably qualified professional. | Section 4.5.1- Independent Sustainability Review |

# Appendix H Objective and Targets Gap Assessment

*Table 28: Table for completion to outline gaps in coverage of the existing sustainability objectives*

| NWTHGP Theme | NWTHGP SS Objectives | Relevant Deed requirements | Annexure C Objectives | Annexure C Target/ Measure | IS Required Targets | Relevant IS Credits | Material Sustainability Topic | Associated Material UNSDGs |
|---|---|---|---|---|---|---|---|---|
| Leadership & Governance | Promote a supportive and high performing work culture that embraces behaviours that contribute to sustainable and improved environmental outcomes and embraces innovation. | Target pathway – a conservative pathway to achieve a 'Silver' rating (40 points), including Credit criteria most applicable to wastewater and Sydney Water processes, and focused to drive sustainability outcomes aligned with Sydney Water sustainability objectives | Develop a Net Zero and Sustainability Management Plan | | Sustainability objectives and SMART sustainability targets must respond to the project's most important sustainability topics (informed by the verified materiality assessment – including UN SDG impacts and priority Credits). | Lea-1, Wfs-3 | N/A | N/A |
| | | Stretch pathway – a more ambitious pathway for a 'Gold' rating that includes levels and points which are more challenging and will incur more change and potential cost to project planning, tender and delivery | | | | | | |
| | | | | | A workforce action plan must be developed and implemented to address recruitment, retention and training requirements, and fill the skills needs identified in the analysis | Wfs-1 | | |

| NWTHGP Theme | NWTHGP SS Objectives | Relevant Deed requirements | Annexure C Objectives | Annexure C Target/ Measure | IS Required Targets | Relevant IS Credits | Material Sustainability Topic | Associated Material UNSDGs |
|---|---|---|---|---|---|---|---|---|
| | | | | | (DL1.1) and include the following:<br>• SMART targets to fill identified skills needs and support retention and training…. | | | |
| | | | | | The (Culture and Well-being) program must outline objectives and SMART targets. An action plan must be developed outlining how the objectives and targets will be achieved, and who has responsibility for the action and outcomes. | Wfs-2 | | |
| | | | | | A Diversity and Inclusion program must be developed, and include:<br>• Commitments, objectives and SMART targets related to improving diversity, and providing equal access to opportunities and fair treatment in the workplace…. | Wfs-3 | | |
| Energy and Carbon | Best practice energy efficient processes and assets (new and existing). | Achieve 10% - 30% reduction in energy use and carbon emissions compared to 'agreed Base Case (to be developed by the | Implement Sustainable Solutions<br>• Minimise carbon footprint… | Minimise operational carbon footprint at Rouse Hill WRP by adopting MBR technology. | | Ene-1 | Climate and Resilience | SDG 7, 11 |

| NWTHGP Theme | NWTHGP SS Objectives | Relevant Deed requirements | Annexure C Objectives | Annexure C Target/ Measure | IS Required Targets | Relevant IS Credits | Material Sustainability Topic | Associated Material UNSDGs |
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| | | Alliance)' during construction. | | | | | | |
| | Contribute to net zero carbon for Sydney Water Operations (Scope 1 and 2 carbon emissions) | | | | | Ene-1, Ene-2, Ene-3 | | |
| | Contribute to the decarbonisation of the supply chain (scope 3 carbon emissions). | | | | | Rso-6, Rso-7 | | |
| Circular Economy | Maximise resource value and support a circular economy by responsibly managing energy, water and materials, and minimising waste creation | Achieve circular economy outcomes through delivering a Resource Efficiency Strategy and Plan. This must address Biochar and works collaboratively with Sydney Water to identify the most feasible use for the waste product. | Implement Sustainable Solutions<br>• Contribute to Circular Economy – recycled water and beneficial reuse of biosolids….. | Diversify biosolids product to be able to re-use 100% of produced bio solids for beneficial purpose. | The RES must outline project-specific resource efficiency SMART targets for the project through each phase of the infrastructure life cycle, considering both resource inputs and outputs | Rso-4, Rso-6, Rso-7 | Circular Economy | SDG 11, 12, 17 |
| | | | Develop a Biochar Reuse Strategy | N/A | | Rso-4 | | |
| | | | | | SMART contamination remediation and management stretch targets must be developed (according to potential location, classification or type, and volume of contaminated | Rso-2 | | |

| NWTHGP Theme | NWTHGP SS Objectives | Relevant Deed requirements | Annexure C Objectives | Annexure C Target/ Measure | IS Required Targets | Relevant IS Credits | Material Sustainability Topic | Associated Material UNSDGs |
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| | | | | | material) and take into account previous site investigations and any other baseline contamination information. | | | |
| | | Achieve the following waste diversion targets:<br>> 85% diversion of clean/inert excavation spoil<br>> 50 - 60% diversion of office waste<br>> 70% diversion of other inert resource outputs. | | | SMART resource output targets for Design & As Built must be developed for achievement at Levels 2 and 3 (according to location, type, and volume). | Rso-4 | | |
| | | | | | Based on the outcomes from the adaptability workshop, a strategy or management plan (or equivalent) must be created including:<br>• Project objectives and SMART targets for adaptability and end of life…. | Rso-5 | | |
| Climate & Resilience | Take a systems approach to address climate-related risks and other shocks and stresses through improved resistance, reliability, redundancy, | | | | | Res-1, Res-2 | Climate and Resilience | SDG 9, 11,13 |

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| | response and recovery. | | | | | | | |
| Sustainable Procurement | Make supply chain decisions that are sustainable and socially responsible. | | | | Sustainable procurement objectives and SMART targets must be developed and included in the project's sustainability management reporting and assurance processes. | Spr-1 | N/A | N/A |
| | | | | | Sustainability commitments and compliance management mechanisms (e.g. SMART sustainability targets) must be written into contracts where there is a material sustainability risk or opportunity. | Spr-3 | | |
| Customer and the Community | Operate in a socially responsible manner and proactively engage and partner with stakeholders, customers and community groups to achieve positive environmental outcomes. | | | | | Sta-1, Sta-2 | N/A | N/A |
| Environmental Protection | Protect, restore and enhance natural and heritage assets. | | Implement Sustainable Solutions<br>• Maintain or enhance | Compliance with the WWTP and WRP EPL and NSW EPA's 2019 Hawkesbury Nepean Nutrient Framework in accordance with the limits and targets of the | SMART water discharge and receiving water quality goals must be established for the project considering the baseline data (DL1.1) and predicted project impacts | Env-1 | Environment | SDG 6, 11, 13 |

| NWTHGP Theme | NWTHGP SS Objectives | Relevant Deed requirements | Annexure C Objectives | Annexure C Target/ Measure | IS Required Targets | Relevant IS Credits | Material Sustainability Topic | Associated Material UNSDGs |
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| | | | waterway health and amenity<br>• Comply with EPL requirements…. | Performance Specification. | (DL1.2) and cover both construction and operational phases. | | | |
| | | | Minimise Service Disruption<br>• Reliable recycled water supply to Rouse Hill Recycled Water Scheme | Increased recycled water production capacity and improve reliability that contribute to reduce portable water top up in Rouse Hill RWP to 10%. | | Wat-1 | | |
| | | | | | SMART noise goals must be established for the project considering the baseline data (DL1.1) and modelled impacts (DL1.2) and cover both construction and the operating asset. | Env-2 | | |
| | | | | | SMART air quality goals must be established for the project considering the baseline data (DL1.1) and modelled impacts (DL1.2) and cover both construction and operational phases. | Env-4 | | |