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Sequestration to Credits

BLUE CARBON ECOSYSTEM RESTORATION
BIODIVERSITY MANAGEMENT GUIDELINE
Blue Carbon S2C Pty Ltd

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Notice

Document History

DOCUMENT REF: BCO-PLN-200-2023-010						
Revision	Purpose	Originated	Checked	Reviewed	Authorised	Date
0	Project Operations & Maintenance Plan	RP	GW	RM	DvM	07.02.23

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Review

This document should be reviewed annually or, when required. It must be reviewed following significant incidents and updated where appropriate to ensure that it remains relevant and effective throughout Blue Carbon restoration projects and activities. All reviews, changes or updates are to be recorded using the Document History box provided above.

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GLOSSARY OF TERMS

Term	***Meaning / Definition***
BCE	Blue Carbon Ecosystems
BCER	Blue Carbon Ecosystem Restoration
BC-S2C	Blue Carbon S2C Pty Ltd
CEA	Carbon Estimation Area
CFI	*Carbon Credits (Carbon Farming Initiative) Act 2011*
EP Act	*Environmental Protection Act 2019*
EPBC	*Environment Protection Biodiversity Conservation Act 1999*
MRV	Monitoring, Reporting and Verification
NT	Northern Territory
POMP	Project Operations and Maintenance Plan

1 Background

In 2015, the Verified Carbon Standard methodology for tidal wetland and seagrass restoration was released. In 2022, Australian Government *Carbon Credits (Carbon Farming Initiative – Tidal Restoration of Blue Carbon Ecosystems) Methodology Determination* was released.

In response to these methodologies, Blue Carbon S2C Pty Ltd (**BC-S2C**) was formed. BC-S2C is a project developer, financier and trader of carbon credits.

BC-S2C is planning to restore wetland habitats in the Northern Territory (**NT**) Gulf of Carpentaria. Wetland habitats are also known as Blue Carbon Ecosystems (**BCE**) and comprise seagrass, mangroves, saltmarsh, mudflats, and littoral forests.

To support its Blue Carbon Ecosystem Restoration (**BCER**) activities, it has prepared this Biodiversity Management Guideline (**BMG**) that will be used to develop site-specific Biodiversity Management Plans (**BMP**) for each BCER project site.

1.1 Audience

The primary audience for this BMG is biodiversity experts, environmental managers, environmental staff, and operations managers linked to BCER activities. The BMG is intended to compliment the knowledge and skills of biodiversity experts who must be consulted for site specific management priorities on BCER projects owned by BC-S2C.

A second level audience is government regulators, BC-S2C clients, non-government organisations and, community members interested in BCER activities.

1.2 Why is the BMP needed?

BCER activities have the potential to enhance biodiversity. Therefore, this BMG and any future site-specific BMP should serve to:

- **Address** any biodiversity risks that have been identified in BC-S2C's environmental and social impact assessment.
- **Avoid biodiversity loss**, with the principal objective of maintaining the diversity of species, habitats and ecosystems and the integrity of ecological functions within BCE. Appendix A includes maps of protected flora and fauna species across all BC-S2C project sites. These maps must be referenced when developing site-specific biodiversity management procedures during BCER activities.
- **Contribute** towards the remediation or restoration of regional and local biodiversity loss caused by human economic developments and/or natural disasters.
- **Improve** the opportunity for the establishment of local businesses.
- **Respond** to regulatory requirements that may include the management of invasive species, protected species, protected habitats, nature conservation, waste management, soil and water pollution prevention.

2 Context and legal governance

2.1 Context

For the purpose of this BMG, biodiversity is defined as the combination of terrestrial and aquatic flora and fauna within BCE. Biodiversity of BCE are integral to wetland health and a functional ecosystem. Human developments and natural disasters continually put biodiversity under threat. With the development and implementation of BCER projects, biodiversity conservation and enhancement are two major goals for BC-S2C.

BCE biodiversity boosts nature's ability to provide the ecosystem services we all benefit from, such as clean water, pollination by insects, and erosion control. Sectors that benefit from such services include forestry, fishing, farming, tourism, and the medical industry.

There are also many less immediately visible ecosystem services within BCE, such as regulating climate, acting as natural flood defences and, carbon sequestration / storage. Other very important but often less tangible benefits include, cultural ecosystem services associated with religious, social, spiritual and indigenous values.

Therefore, in the context of BCER, biodiversity is critical and a very realistic project co-benefit.

2.2 Legal obligations

BCER projects undertaken by BC-S2C are likely to include biodiversity compliance under the following Acts of legislation:

- Commonwealth *Environment Protection Biodiversity Conservation Act 1999* because there are recorded flora and fauna species that are Matters of National Environmental Significance.
- NT *Environmental Protection Act 2019* because BCER cannot cause significant environmental harm.
- NT *Territory Parks and Wildlife Conservation Act 1976* and associated Regulations (2019) because its objectives are to protect biodiversity and wildlife, control feral animals within land that is classified as a park or a reserve.

2.3 Carbon estimation areas

The ability to sequester soil Carbon over the 100-year permanency period on all BCER projects will be made possible by Carbon Estimation Areas (CEAs). Therefore, this BMG must be used to guide site specific actions within each CEA boundary. CEA boundaries are not yet defined. The final CEA boundary will require evaluation of guiding principles (section 3), the consideration of other environmental management plans linked to BCER activities (section 4.1) and, a step-wise approach to preparing site-specific BMP (see Section 4.2).

3 Principles

- Site specific BMP's for all BCE projects should be 'SMART' i.e., specific, measurable, attainable, relevant, and time-bound
- Biodiversity targets should relate to national or NT biodiversity targets where they exist
- The principal actions required to reach each of the biodiversity targets should be defined
- The outcome of these actions should be monitored by creating a monitoring programme adapted to the BMP; management actions should be adapted based on the monitoring results
- The long-term sustainability of the biodiversity management should be ensured through appropriate partnerships, resourcing and engagement of stakeholders
- The BMP should be aligned with the site's Project Operations and Management Plan (BC-S2C document reference BCO-PLN-200-2023-010), environmental management plan and system (BC-S2C document reference BCO-PLN-200-2023-004).
- The development and implementation of BMPs could also result in various social opportunities and promote sustainable socio-economic activities, such as biodiversity-based tourism.

4 Operational management

4.1 Other management plans

This BMG should be read, where required, in conjunction with the following BCER environmental management plans:

- **Environmental Management Plan** (BC-S2C document reference BCO-PLN-200-2023-004).
- **Project Operations and Maintenance Plan** (BC-S2C document reference BCO-PLN-200-2023-010).
- **Permanence Plan** (BC-S2C document reference BCO-PLN-200-2023-009).
- **Acid Sulfate Soils Plan of Management** (BC-S2C document reference BCO-PLN-200-2023-003).
- **Biodiversity Management Plan** (specific to each BCER site).
- **Biosecurity Monitoring Management Plan** (document reference BCO-PLN-200-2023-011) to control risks from feral animals, weeds, or disease.

4.2 Step-wise approach

The development of site-specific BMP's should take place in stages and requires consultation with a team consisting, as a minimum, Project Manager, and an ecologist (in-house or consultant). Working with expert partners to help define the appropriate targets and actions specific for each site is crucial.

The stages in the development of a BMP are summarised below:

- Stage 1 – Refer to baseline information in Appendix A.
- Stage 2 – Field investigations to target and map habitat types, target species and confirm baseline.
- Stage 3 – Carry out stakeholder engagement to supplement Stages 1 and 2.
- Stage 4 – Determine priority species and habitats and ecosystems based on Steps 1 to 3. Define biodiversity targets and related actions. Prepare monitoring programs to assess and manage effectiveness of actions.
- Stage 5 – Prepare the site-specific BMP that is approved by Executive Management.
- Stage 6 – Review the BMP, adapt actions, communicate changes and report into BC-S2C IMS.

5 Monitoring

Any site-specific BMP should be reviewed annually.

During BCER, a qualified ecologist will be on-site to guide and direct operational staff to avoid any losses to protected flora, fauna, or habitats.

Post BCER, BC-S2C will monitor, report, and verify the success of its projects and biodiversity targets every quarter for the first two (2) years then bi-annually between years 3 and 5 and annually every year thereafter.

Conceptually, this BMG recommends the following monitoring program for BCER actions and MRV actions:

- BCER activities – weekly inspections followed by instantaneous reporting into BC-S2C cloud-based IMS.
- MRV activities – Quarterly for the first two years post completion of BCER project then, bi-annually from years three to five. Then annually every year after year five.

6 Example BMP structure

1. Summary
2. Methodology
3. Biodiversity context
    a. Basic information
        i. Location of the BCER project.
        ii. Context to National and NT biodiversity targets.
        iii. Additional ecological data to baseline.
        iv. Brief site description.
    b. Protected areas.
    c. General description of site-specific BCER actions
4. Objectives and targets
5. Management actions
    a. Actions based on legal / approval requirements.
    b. Biodiversity actions.
    c. Identification of those responsible for the BMP.
6. Implementation
    a. Mechanisms for implementation.
    b. Stakeholders and BCER project partners.
7. Monitoring, Reporting and Verification
    a. Review periods.
    b. Baseline comparison.
    c. Plan Do Check Act – revision of management objectives
    d. Communication
8. Budgets and timelines
9. Reporting
    a. Internal reporting
    b. External reporting
10. References

Appendix (maps, MRV locations etc).

7 References

1. **Australian Government Clean Energy Regulator** (2022)**:** *Carbon Credits (Carbon Farming Initiative – Tidal Restoration of Blue Carbon Ecosystems) Methodology Determination*

2. **Verra** - *VM0033 Methodology for Tidal Wetland and Seagrass Restoration Version 1.0 2015.*

BLUE CARBON ECOSYSTEM RESTORATION

PROJECT ENVIRONMENTAL MANAGEMENT PLAN

Blue Carbon S2C Pty Ltd

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Document History

DOCUMENT REF: BCO-PLN-200-2023-004-EMP						
Revision	Purpose & description	Originated	Checked	Reviewed	Authorised	Date
A	Environmental Management Plan	RP	GW	GW	RP	06.02.23

Completed by: Blue Carbon S2C Pty Ltd
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Review

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Glossary and definitions

Term	*Meaning / Definition*
ALARP	As Low As Reasonably Possible
ASSPoM	Acid Sulfate Soils Plan of Management
ASS	Acid Sulfate Soils
Audit	A systematic and independent examination or review of all or part of a project operation to determine whether activities and related results comply with established systems and whether these systems have been implemented effectively and are suitable to achieve BCER Project EHS objectives.
BC-S2C	Blue Carbon S2C Pty Ltd
BCER	Blue Carbon Ecosystem Restoration
BC-I	BlueCarbon Institute
BIMP	Biting Insects Management Plan
BMP	Biodiversity Management Plan
Client	BC-S2C Pty Ltd
Cloud-based IMS	BC-S2C's Corporate EHS, risk, quality and project management integrated management system database.
CDO	Chief Development Officer
CEO	Chief Executive Officer
COO	Chief Operations Officer
Consequence	The outcome of an event expressed qualitatively or quantitatively, whether a loss, injury, disadvantage, or gain. There may be a range of possible outcomes associated with an event.
Duty of Care	A statutory legal obligation that places a clear responsibility on organisations to ensure the health and safety of their employees and to prevent harm to the environment.
EHS	Environment, Health & Safety
EMP	Environment Management Plan
EMT	Executive Management Team
Environment	The surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, and humans, and the interrelationships of these elements.
Environmental aspect	Element of organisations' activities, products or services that can interact with the environment. A significant environmental aspect is one that has or can have a significant environmental impact and is defined as any aspect having a risk ranking of medium or higher before controls are implemented.
Environmental impact	Any change to the environment, whether adverse or beneficial, wholly, or partially resulting from an organisation's environmental aspects.
EPA	Environmental Protection Authority
EP Act	*Environmental Protection Act 2019*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPBC Regulations	Environment Protection and Biodiversity Conservation Regulations 2000
EPRP	Emergency Preparedness and Response Plan
ERP	Emergency Response Plan

Term	*Meaning / Definition*
ESCG	Erosion and Sediment Control Guideline
ESCP	Erosion and Sediment Control Plan
Hazard	A source of potential harm or a situation with a potential to cause a loss.
HAZID	Hazard identification
Impact	Any adverse change to a procedure, process, operation, or the environment wholly or partially resulting from blue carbon restoration activities, products or services conducted by BC-S2C.
IMS	Integrated Management System
Incident	An event or situation that results in damage or has the potential to cause injury, illness, financial loss or liability, or an environmental impact.
ISO 9001	Quality Management System.
ISO14001	Environmental Management System.
ISO 31000:2009	Risk Management System.
ISO 450001	Health and Safety System.
JHA	Job Hazard Analysis - an analysis of the tasks or activities undertaken in a job or process to ensure any risks associated with the job are identified and controlled.
KPI	Key Performance Indicators
MAP	Major Accident Prevention
MAE	Major Accident Event
Monitor	To check, supervise, observe, or record the progress of an activity, action or system in such a manner as to assess compliance or identify change.
MRV	Monitoring, Reporting & Verification
Non-conformance	A departure from the requirements of a condition of approval, Client approvals, legislation, or procedure.
NT	Northern Territory
Reportable Incidents	Incidents that must be reported to a regulator or other authority.
Risk	The probability of something happening that will have an impact upon project objectives. Risk is measured in terms of consequences and likelihood.
Risk management	The culture, processes and structures that are directed towards the effective management of potential opportunities and adverse effects.
RRP	Reward and Recognition Program
Stakeholder	Individual or group concerned with or affected by the environmental performance of an organisation.
Subcontractor	An individual, or other legal entity that carries out work or performs services pursuant to a contract for service.
SWA	Stop Work Authority
SWMS	Safe Work Method Statements
WFAMP	Weed & Feral Animal Management Plan

1 Introduction

1.1 Purpose and function

This Environmental Management Plan (**EMP**) has been prepared by Blue Carbon S2C Pty Ltd (**BC-S2C or the Client**) to meet the requirements of its environment, Environment, Health & Safety (**EHS**) and Integrated Management System (**IMS**). This EMP incorporates the likely development, construction, monitoring, reporting and verification (operation) environment mitigation controls required to manage potential negative environmental impacts or, environmental harm, associated with Blue Carbon Ecosystem Restoration projects described in the environmental scoping Project Referral Report issued to the Northern Territory (**NT**) Environment Protection Authority (**EPA**) and Commonwealth Department of Climate Change Energy, Environment and Water in February 2023 (document reference **BCH-REP-200-2023-001**).

The purpose of this EMP is to:

- Provide a baseline document that describes the performance expectations for environmental management on proposed Blue Carbon Ecosystem Restoration (**BCER**) projects proposed in the Northern Territory (**NT**) Gulf of Carpentaria (**BCER Projects**).

- Provides guidance to environmental staff, Contractor and construction personnel so that all phases of BCER Projects are undertaken in accordance with relevant BC-S2C and legislative requirements. It is a document that is to be kept on-site and used as a central reference for environmental management.

The function of this EMP is to:

- Provide a framework for plans and procedures that address specific environmental management requirements and control measures.

- Assign environmental responsibilities and training requirements to relevant BCER Project personnel.

- Summarise environmental objectives and key performance indicators (**KPI**) for the Project.

- Provide an overarching structure that ensures the Project environmental outcomes meet Client and relevant legislative requirements.

- This EMP will be revised/updated to reflect the requirements of NT / Federal approvals or any contractual documentation on award of contract.

1.2 Project overview

The Client is proposing to develop BCER Projects along the NT Gulf of Carpentaria coastline inclusive of seagrass, mangrove, saltmarsh, mudflat, and littoral forest habitats. Refer to Figure 1-1.

1.3 Contractual relationship

Client	BC-S2C.
Contractor	BlueCarbon OnCountry (**BC-OC**) including nominated sub-contractors.

1.4 Scope

This EMP applies to all BCER Projects during construction and operation. It also applied to all BCER Project personnel within BC-OC, including sub-contractors and site visitors. This EMP addresses the key environmental aspects as interpreted from the Project Referral Report across key environmental aspects including:

- Terrestrial flora and fauna.
- Aquatic flora and fauna.
- Soils.
- Surface waters.
- Groundwater.
- Air quality (emissions and dust control).
- Cultural heritage values.

This EMP is supported by specific EHS management plans addressing the likely aspects outlined above, which will be developed and implemented as determined by BCER Project risk assessment(s) or contractual requirements.

1.5 Objectives

The objectives of this EMP are to:

- Ensure compliance with relevant industry, Client, and legislative requirements.
- Set out practices and procedures for BCER Projects to effectively manage construction (restoration) and operations (maintenance, monitoring, reporting and verification {**MRV**}) in a way that minimises risks to persons, property, the environment, and the community.
- Ensure that all personnel are trained and aware of risk minimisation requirements.
- Set roles and responsibilities so that lines of communication and decision making are clear and understood by all parties.
- Implement the Client's Target Zero Program on the Project.
- Assist in creating an environment that achieves effective EHS culture and working relationships between all people involved on BCER Projects.

1.6 Revision

This EMP will be reviewed and updated as necessary to reflect any process changes that arise from:

- Modifications to work scope.
- Statutory or other obligations.
- Feedback from risk assessments, inspections, audits, and Project personnel.
- Senior Management reviews.

Revisions will be undertaken in accordance with Client IMS document control procedures.

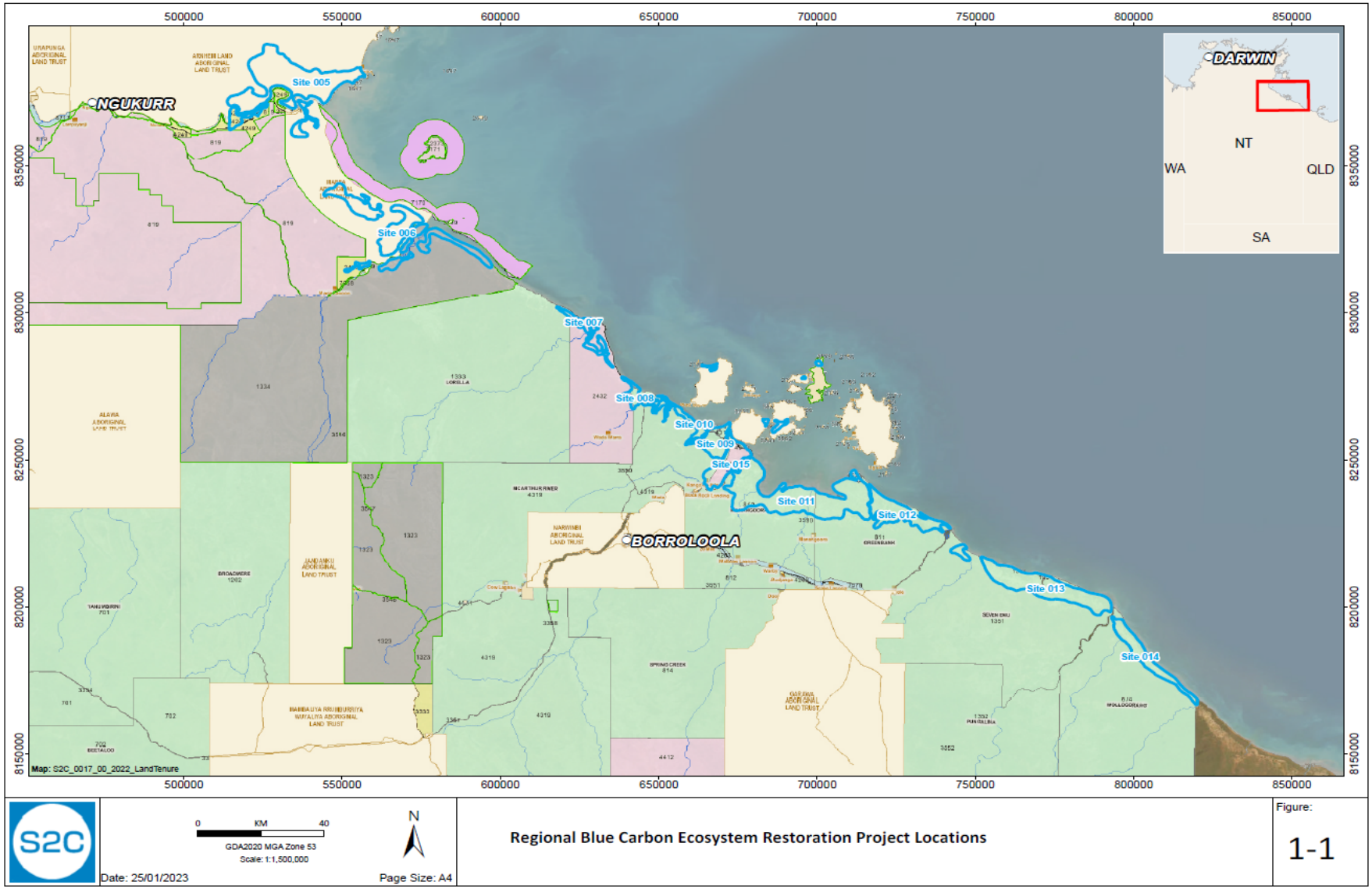

Figure 1-1 Regional BCER project locations.

2 Organisation and accountabilities

EHS personnel positional responsibilities and reporting lines will be defined in the Clients Organisational Chart (**Appendix A**).

The BC-OC Project Manager in consultation with functional General Managers shall ensure that appropriate human resources are always engaged on BCER Projects. A review of resourcing, position descriptions and responsibilities will be scheduled for review during the Project period.

While the management of the environment is every employee and contractor's responsibility, the BC-OC Project Manager has the ultimate responsibility for the management of Health, Safety, Security and Environmental (EHS) issues for BC-S2C on the Project.

BC-S2C recognises that visible leadership is a key element to successful environmental management. The Executive Management Team (**EMT**) will demonstrate commitment to the principles expressed in the BC-S2C Policy for Environment and Sustainability (**Appendix B**).

The objectives and targets defined in this document will be demonstrated and met by:

- Delivering a series of leadership engagement and alignments workshops to set BCER Project environmental management expectations.
- Inductions for all site personnel to verify they are aligned around a common vision and set of objectives within this EMP.
- Ensuring decisions and practices are aligned with the principles and objectives outlined in the Policy for Environment and Sustainability (**Appendix B**).
- Ensuring the EMT and BCER Project team meets on a scheduled basis and provides direction and insight toward achieving a Target Zero Project.
- Providing adequate resources, including personnel, facilities, and equipment, to allow all work associated with BCER Project's to be completed while minimising environmental harm.
- Defining, documenting, and communicating specific environmental roles, accountabilities, responsibilities, and authorities.
- Participating in environmental audit activities, incident reporting and investigations.
- Identifying, assessing, and adequately controlling all foreseeable hazards using risk management processes such as hazard identification (**HAZID**) workshops, restoration activity reviews.
- Carrying out remedial action promptly for all identified hazards to reduce the risk of any adverse impact to the receiving environment.
- Ensuring all employees, subcontractor personnel and visitors comply with the requirements of the Project EMP, Client, and legislative requirements.
- Ensuring that environment meetings are conducted and that relevant personnel attend.
- Ensuring emergency response exercises are undertaken in accordance with the Project's Safety Management Plan, Emergency Preparedness and Response Plan (**EPRP**) (BCH-PLN-200-2023-005).

- Ensuring worksites are regularly visited by EMT within BC-S2C and the outcomes of management visits are recorded in its IMS.

3 Environmental requirements

Work and documentation shall be managed in accordance with legislative and Client requirements. They shall be completed to meet the requirements of other Client Plans including its Acid Sulfate Soils Plan of Management (**ASSPoM**) (BCO-PLN-200-2023-003), Erosion and Sediment Control Guideline (**ESCG**) (BCH-GUI-200-2023-002), Biodiversity Management Plan (**BMP**) (BCO-PLN-200-2023-006), Weed & Feral Animal Management Plan (**WFAMP**) (BCO-PLN-200-2023-007) Waste Management Plan (**WMP**) (BCO-PLN-200-2023-008) and all other relevant BC-S2C Policies and Operating Standards or Procedures held within its IMS.

3.1 Environmental objectives, targets and KPI

The Client is committed to achieve continual improvement in its environmental performance through the selection of KPI and setting of Objectives and Targets. Each KPI is consistent with its IMS Policies and all legislative requirements.

Progress towards meeting the KPI's will be monitored and reported monthly, as part of the EHS performance report, and will also be monitored during audits and BC-S2C EMT Management Review. Where appropriate, the achievement of KPI may also be incorporated into individual personal accountability and performance appraisal.

The EHS Manager will ensure that environmental performance against the defined objectives, targets and KPI are monitored, reported, and communicated. The BCER Project Manager will be responsible for ensuring the implementation of all targets and objectives. Project specific environmental objectives and targets based upon identified environmental risks associated with the BCER activities are presented in Table 3-1: Environmental Objectives, Targets and Key Performance Indicators.

3.2 Project specific objectives

Project specific EHS objectives will be developed in consultation with BC-OC contractors and sub-contractors in a pre-restoration workshop.

- Educate subcontractors during inductions and regular toolbox meetings regarding the potential presence of threatened flora or fauna species.
- Develop and implement procedures and checklists to minimise impacts on flora and fauna.
- Do not remove or destroy mangrove species.
- Ensure that there is no unauthorised driving off designated restoration activity routes or access points.
- Restrict speed limits on internal access roads to minimise the risk of vehicle strike.
- Regularly monitor the integrity of erected fences to reduce the likelihood of feral fauna accessing operational areas.
- Implement control measures (i.e., physical or chemical) if feral fauna numbers increase in operational areas.
- Manage all waste and rubbish appropriately in line with the Client's WMP. This would include placing all rubbish and scraps in closed containers and taken to the licensed waste facility in Borroloola.
- No feeding of native fauna would be permitted.
- Report sightings or mortalities of conservation significant species in line with the BMP.

Table 3-1: Environmental objectives, targets and key performance indicators

Objectives	Measurable targets		Management programs	Relevant section
	Indicator	Target		
Prevent unplanned impacts to the environment	Environmental incidents resulting in a measurable environmental impact.	Nil incidents	• EHS risk management. • Incident reporting. • Actions management.	• Refer to Section 8.1. • Refer to Section 14. • Refer to Section 16.
To ensure that work is performed in accordance with this environment plan and Contractor Environmental Management System.	Timely reporting of incidents within Client IMS. Close out of Actions from Incident Investigations. Inspections and Observations.	100% reporting as required 100% within agreed timeframes	• Incident reporting. • Actions management. • Environmental monitoring and inspections.	• Refer to Section 15.2. • Refer to Section 16. • Refer to Section 16.
Potential environmental risks/ impacts are identified and provisions are made for their prevention, minimisation and management.	Environmental Risk Register has been developed and Client has had an opportunity to review	Prior to mobilisation	EHS risk management	Refer to Section 8.
To ensure that PROJECT personnel are aware of and able to achieve their environmental targets through appropriate training and awareness programs.	Inductions completed.	100%	EHS inductions	Refer to Section 7.1.4.
	Training completed as per training analysis.	100%	Training needs analysis & management.	Refer to Section 7.1.
	Environmental awareness topics delivered to work group in toolbox sessions.	1 environmental topic per month (minimum)	Environmental awareness program	Refer to Section 7.3.
To maintain and improve the CEMP. To demonstrate the environmental objectives are met.	EMP review. Inspections and audits.	On schedule Actual versus scheduled >90%	• Environmental monitoring and inspections. • Incident Investigation.	• Refer to Section 16. • Refer to Section 15.2. • Refer to Section 16.

3.3 Metrics and reporting

Environmental metrics will be recorded for lead (proactive) and lag (reactive) indicators for the duration of all BCER Projects. The Client will collect Environmental KPI under either one of two Project Management Plans required for Project Registration:

i. Permanence Plan (BCO-PLN-200-2023-009); or
ii. Project Operations Maintenance Plan (BCO-PLN-200-2023-010)

as a way of assessing the performance of the work. It will submit project based KPI reports in accordance with internal EHS procedures and to meet Project Registration MRV reporting requirements.

3.4 Environmental leadership and accountability

3.4.1 Leadership engagement

A gap analysis will be conducted; Client and Contractor leadership programs will be integrated with modifications where appropriate.

BC-S2C has identified three levels of leadership intervention to engage senior managers, frontline managers and individuals to understand their individual and collective accountability.

- **Executives and Senior Managers** – understanding role of Person Conducting a Business Undertaking, Management site visits, Observation and Intervention;
- **Managers, Contract Managers, frontline Supervisors** – defining contract EHS expectations, Observation and Interventions, coaching in the field; and
- **Site based and non-site based general personnel** – personal commitment program, application of personal risk assessment (Take 5) and hazard awareness.

Contractor Target Zero leadership and behaviour programs are detailed in Target Zero Management Plan (under preparation at the time of submitting this EMP).

3.4.2 Leadership engagement workshop

Senior Management shall participate in a facilitated Leadership Engagement Workshop. The Client will be extended an invitation to participate to provide a forum for both Companies to align their EHS Values for the project.

3.5 Stop work authority

BC-S2C and BC-OC employees and sub-contractors have an obligation to exercise their Stop Work Authority (**SWA**) should they believe that continuing with a task would cause risk of harm to themselves, others, the environment, or property.

Through the induction process, all BC-S2C and BC-OC employees and sub-contractors will be advised of their responsibilities and obligations under the SWA to ensure they are aware and capable of implementing their SWA.

BC-S2C's SWA is a no recriminations process that is fundamental to operations and is an integral part of its employee Code of Conduct and Target Zero Management Plan.

When SWA is applied, the information surrounding the stoppage of work and the outcomes will be captured and the lessons learned shared across the Project and, where applicable, to the BC-S2C EMT, BC-OC and its nominated subcontractors.

3.6 Suspension of Work

The Client reserves the right to stop work undertaken by BC-OC or its nominated subcontractors at any time the Client identifies the Work Site as imminently hazardous to persons, property, or the environment or, if the Client identifies that the Work is being done in an unsafe manner, in non-compliance with legislation, Contractor EHS, relevant government approval requirements or Client requirements.

It is understood that this suspension may continue until the Client has investigated and BC-OC has provided reasonable assurance that the appropriate corrective and preventive measures have been duly implemented.

3.7 Reward and recognition program

The Client will implement a Reward and Recognition Program (**RRP**) shall provide the workforce with recognition and reward of good individual or team performance in achieving environmental objectives and targets with a particular emphasis on positive indicators.

The program shall use the environment KPI and could also include:

- Recognition of workers for stopping hazardous works;
- Recognition for good environmental performance;
- Recognition to team for successful audits/inspection.

The RRP will be implemented through all phases of the Project scope.

4 Legal requirements

Legal and other requirements for the Project shall be managed in accordance with BC-S2C Operating Standards and Procedures, as well as legislative and IMS requirements. It shall be completed to meet the requirements of all relevant internal Procedures.

4.1 Legislative and approval requirements

A Health Safety & Environment Legislation and Obligations Register (the **Register**) will be developed within the Client's IMS. It will be implemented to provide an up-to-date register of relevant legislation applicable to all BCER operations and activities in which BCER Projects are involved. This Register is to be updated as needed in accordance with Control of Legal and Other Requirements Procedure (BCH-PRO-000-2023-001).

An appropriate online system will become the Project's legislative and regulation assistant online register. The selected software will provide a current list of relevant legislation applicable to any BCER Project. This program will give updates when changes in legislation come into effect via email and site updates. Any updates will be reviewed by the appropriate personnel within the Client's Organisational Chart to ensure there is no impact to the relevant procedures and plans.

The Client has access to Australian standards online via its Intranet IMS, and codes of practice can be accessed via the relevant NT Worksafe website.

All Work shall be undertaken in accordance with the relevant statutory requirements. The following key legislation is recognised as relevant to the approval of BCER Projects:

- NT *Environment Protection Act 2019*.
- Commonwealth *Environment Protection Biodiversity Conservation Act 1999*.
- Commonwealth N*ative Title Act 1993*.
- NT *Aboriginal Land Rights Act 1976*.
- NT *Pastoral Lands Act*.
- NT *Crown Lands Act 1992*.
- NT *Work Health Safety Act*.

4.2 Client requirements

Where the Client mandates the use of Client procedures, a gap analysis of the existing Contractor or Subcontract EHS Management System and Client requirements shall be conducted. Where required, a bridging document will be produced that will describe how any identified gaps will be controlled.

5 Environmental management system requirements

5.1 Documents and record management

All EHS documentation generated on the Project, whether hard copy or electronic, shall be controlled in accordance with the Client's Folder and File Naming Policy (BCH-POL-000-2022-001) and IMS.

5.2 EHS management system

The Project will use the Clients IMS to achieve EHS performance and with the goal of achieving Zero Harm. The Client's hierarchical approach to EHS processes is shown in Figure 5-1. The Client's Health and Safety Policy and Policy for Environment, Sustainability, and Community establishes its approach to EHS. It represents a commitment to the achievement of the EHS objectives.

5.2.1 EHS management system interface

Contractor's EHS elements shall be assessed by the BC-OC and its appointed lead Contractor against applicable Client Standards to identify any alignment issues or gaps within Contractor's EHS consistent with Section 4.2 – Client Requirements.

BC-OC shall adopt BC-S2C environmental management plans and keep a BCER Project Register for any alignment issues and gaps identified for review and comment by Client. Where selected elements of these EHS requirements are deemed as not applicable, this shall be agreed by Client, documented in contract or associated terms and conditions and approved by the Client.

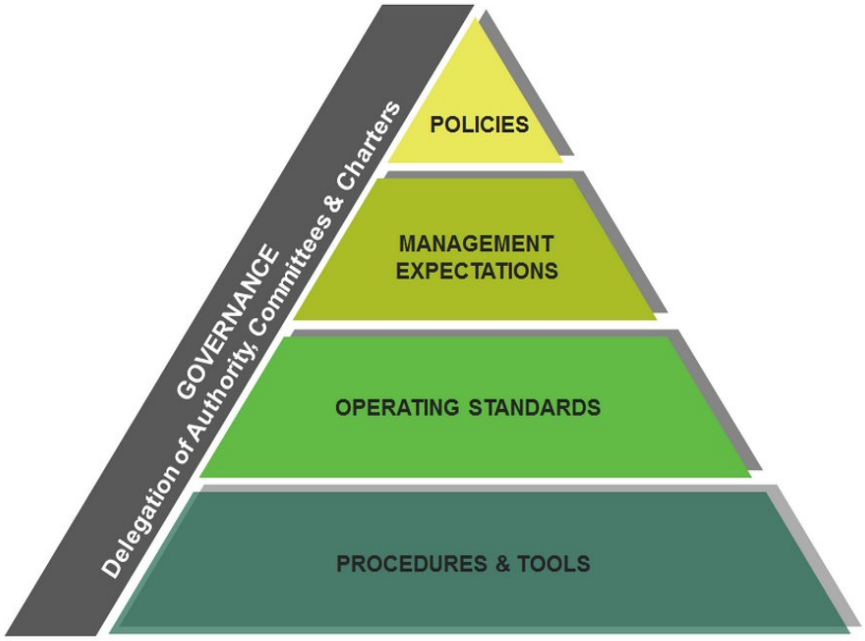

Figure 5-1 Overview of EHS and IMS

5.3 Environment, sustainability and community

BC-S2C will meet its Environmental Policy by:

- Operating in a responsible manner that respects the environment.
- Encourage new ways of minimising environmental impacts via the Plan Do Check Act approach.
- Strengthen partnerships with stakeholders to achieve objectives and obligations.
- Strive to effectively manage resources, reduce waste, and eliminate or minimise adverse environmental effects and risks associated with blue carbon restoration operations and activities.
- Meet applicable environmental laws, statutory obligations, and relevant voluntary codes of practice (i.e., the Carbon Market Institute).
- Protect natural, historic, and culturally significant sites.

Specific actions relating to communication of the EHS policies are outlined in Table 5-1.

Table 5-1 EHS Policy Communication

What	Who	When (How)
Communicate EHS policies to BC-S2C employees.	• BC-S2C Project Manager. • BC-S2C Project EHS Manager.	• Staff induction. • Project induction. • On display at BC-S2C managed work sites. • Project training presentation.
Communicate EHS policies to BC-S2C contractors and sub-contractors.	• BC-S2C Project Manager. • BC-S2C Project EHS Manager.	Prior to commencement of operations.
Apply BC-S2C policies to all BC-S2C activities.	All staff.	At all times.

6 Planning

6.1 EHS deliverables

All EHS documentation is contained within BC-S2C's IMS. It shall be referenced to identify all Project documentation required for the delivery of Blue Carbon Project's and associated activities. In addition, a master project schedule will be developed. It will be reviewed by the Project's EHS General Manager to ensure it is complete and all documentation is issued for use.

6.1.1 Target zero implementation plan

A Project specific Target Zero Management Plan will be developed to describe how the BC-S2C Target Zero program will be implemented on the Project. Target Zero activities will be included within the Project EHS Schedule. BC-S2C and all its subcontractors on the Project will participate in all Target Zero activities. The BC-OC Project Management Team and SLT will lead by example by demonstrating the Target Zero philosophy throughout all stages of the Project.

6.2 Risk management in the planning phase

Consideration of the management of environmental aspects and impacts shall be given throughout the planning phase of the Project. This shall include the following risk management activities, described in detail in section 8.4 Hazard Assessment – Project Planning Phase:

- Identification of Major Accident Event Hazards applicable to the Project scope of work.
- Conduct of Construction Risk Assessment Workshops (CRAW) and Hazard Identification (HAZID) workshops to develop and maintain the Project Hazard (Aspect and Impact) Register.

6.3 Scope of work kick-off meetings

For the execution of restoration activities, BC-S2C shall hold Scope of Work (**SoW**) kick-off meetings prior to each critical phase of the work scope to:

- Identify environmental issues, risks, opportunities, and gaps that can impact its current or future ability to achieve world-class performance.
- Assess and prioritize such environmental issues, risks, opportunities, and gaps using a systematic, cross-functional approach.
- Identify potential risk reduction alternatives (elimination of risks, mitigation of risks and risk segregation) for all identified risks. There shall be prioritised and systematic methods for evaluating risks and alternative risk reduction proposals.
- Agree upon environmental KPI linked to key environmental factors identified in the Project's government Referral Report.

6.4 Pre-mobilisation review

BC-S2C shall conduct a pre-mobilisation review prior to mobilisation to site. This Review shall ensure:

- All environmental risks have been adequately identified and controlled by Contractor to As Low As Reasonably Practicable (**ALARP**);
- All applicable regulatory and Client requirements have been met.
- All identified actions from HAZID Workshop(s), and meetings have been closed out.

7 Training and awareness

7.1 Mobilisation, inductions, and training requirements

BC-S2C and sub-contractors shall comply with relevant Client minimum requirements for mobilisation.

7.1.1 Minimum mobilisation requirements

Contractor personnel requesting mobilisation to the Project site are required to have the following minimum training and induction requirements verified:

- Client / visitor Inductions.
- BC-S2C Inductions.
- Driver's license.
- Legislative construction induction (i.e., Blue/White Card).
- Fitness for Work medical assessment and declaration.

Project and Client specific induction requirements will be documented in BC-S2C's Training Management Plan.

7.1.2 EHS scope of work specific inductions

All personnel working on Project sites will be required to attend an EHS SoW specific induction to the area in which they will be working prior to commencing work. In accordance with site EHS induction, the BC-S2C EHS Manager and delegated trainer will be responsible for conducting inductions for the various work sites. The aim is to ensure all personnel mobilising to site are aware of the work-site specific EHS Management Plans and to familiarise personnel with the key locations on the Project.

Where personnel have been absent from site for a significant period, or where there has been a significant change, site risks, health and safety issues and incidents are communicated.

7.1.3 Short term workers induction

In relation to short term workers, BC-S2C will align its approach to meet these requirements. BC-S2C's general approach is that personnel working on the Project for less than seven (7) days or less will be undertake a short-term workers induction which includes a briefing of their responsibilities as contained in the full induction, a site-specific induction for the work scope they are required to undertake, review of relevant JHA's.

A short-term worker will be supervised by a fully inducted Project Supervisor for the duration of their work scope.

7.1.4 Inductions and training

The Project shall undertake a training needs analysis as applicable to the Project Scope of Works that will be used to develop the Training Matrix, which will identify the target audience and timeframes for each competency to be delivered.

All employees and subcontractors are required to undertake the relevant site inductions and obtain 100% compliance with the environmental requirements, and site rules and regulations, prior to commencing any works on site.

Visitors, not undertaking any work tasks and always accompanied, only require a visitor I=induction. All other visitors must undertake the Project site induction.

7.1.5 Induction and training records

All personnel attending training or induction courses and presentations carried out by BC-S2C throughout the Project will be recorded on Training Attendance Form and, the information on these forms transferred to the Project Training Register. Copies of all external training certificates must be forwarded by the candidate to BC-S2C for recording on the Project training database. A copy is kept on the candidate's personal file in Human Resources.

7.2 Field supervisor training and mentoring

Further to Project inductions and general training requirements, BC-S2C will provide a field supervisor mentoring program to allow for ongoing support, training, and mentoring, which will assist in the implementation of the Project Target Zero plan.

- Supervisory leadership.
- Effective communication and issue resolution.
- EHS responsibilities and accountability.
- Legislative Requirements.
- Project EHS expectations.

7.3 Promoting environmental awareness

In accordance with mandatory Pre-Shift Safety Briefing, prior to the commencement of any shift, the responsible supervisor for each discipline and work group will initiate a pre-shift meeting that will involve all personnel under their control for the duration of the shift.

Pre-shift meetings will be documented and recorded, allowing for review throughout the shift if required. The meetings will allow for discussion of all expected activities for that shift and outline or discuss any applicable hazards and risks and the required precautions to be implemented.

All work sites will hold weekly toolbox meetings with personnel and the immediate supervisors and leading hand. A series of structured environmental campaigns will be delivered in Toolbox meetings to educate and raise awareness on the risk and controls associated within their scope of work. Toolbox meetings shall be conducted by supervisors with support from the Environmental Manager and will be documented and recorded using the Attendance Record Form, with copies of the record available at site locations. Toolbox talks will be displayed on the site EHS noticeboards.

The meetings itemise the work that will be undertaken during the day and includes the following environmental related components:

- Weather observations / forecast.
- Any reported incidents.
- Legislative and Client permits / approvals and any other site-specific conditions relevant to the day's activities.
- Planning and controls required for maintenance of plant and machinery, movement of hazardous materials and waste management for hydrocarbons.
- Environmental focus for the day (e.g., housekeeping / litter clean up, dust control, fauna interaction etc.).
- Feedback on environmental issues / incidents that recently occurred within the area or other areas of the Project.
- Feedback from Environment, Health, and Safety Committee meetings.

Further to this, BC-S2C will endeavour to enhance the awareness of environmental issues pertaining to the site by maintaining the noticeboard with newsletters, posters, signage, and awareness campaigns and bulletins so that site personnel are able to contribute and provide feedback or participate in environmental initiatives.

8 Risk and hazard management

An objective of the Blue Carbon Restoration Project Team is to eliminate or reduce to **ALARP** all hazards and risks. Accordingly, all personnel on Project will be trained in BC-S2C specific risk and hazard management methods and associated tools in the Project induction.

During all restoration activities, BC-S2C's standard hazard identification, risk assessment and risk control techniques will be used as per the EHS Risk Management Procedure (*document reference to be generated*) to ensure that all hazards are identified, and the associated risks are reduced to ALARP.

Controls shall incorporate requirements of relevant legislation, standards, and codes of practice. Risk and Hazard management processes will be evaluated for effectiveness by BC-S2C using its IMS Risk procedures and Project specific tools.

All EHS hazard analysis processes are based on ISO 31000:2009 Australian Standard Risk Management, including steps to:

- Define scope to be assessed.
- Identify hazards and current controls.
- Assess the risks.
- Plan and implement hazard and risk controls strategies.
- Review and monitor effectiveness of control strategies.

A summary of the BC-S2C risk management processes, their purpose, the methodologies used and the stage in the Project lifecycle to which they apply is provided in Appendix C.

8.1 Project specific environmental hazards (aspects and impacts)

Based on analysis of the Project environmental scoping and engineering feasibility, the following environmental hazards (aspects and impacts) have been identified:

- **Water quality** – potential negative impacts on local water quality from runoff, acid sulfate soils contamination.
- **Contaminated land management** – potential ASS, spills from plant, equipment and testing impacting local environment.
- **Erosion and sediment control** – from any civil earthworks linked to the BlueCarbon Institute, exposed or ASS which may impact neighbouring environmental values.
- **Flora and vegetation**: – harmful impacts on vegetation communities, especially flora of conservation significance, and overall impacts to ecological communities.
- **Terrestrial fauna:** – potential negative impacts on local terrestrial or aquatic fauna from emissions, spills or entrapment through clearing or excavations.
- **Pests, pathogens, and biosecurity** – invasive flora and fauna species spread through project related activities, also increasing the risk of disease to personnel and native flora and fauna.
- **Cultural heritage (indigenous and non-indigenous)** – potential negative impact on and interaction with indigenous or non-indigenous (European) items of cultural heritage.
- **Land access and tenure, community, and stakeholder (amenity)** – negative impacts to the local communities and/or landholders which may impact land access;

- **Waste management** – generation of construction waste, including management and disposal of hydro test water, hydrocarbons, and other chemicals;
- **Hazardous materials management** – potential impacts to local environment through handling and storage of hazardous materials.
- **Emissions management** – environmental impacts from noise, light and air pollution from project related activities.
- **Blue Carbon restoration activities** – mismanaged restoration techniques leading to unsuccessful project implementation that may cause environmental harm to sensitive wetland eco-hydrology.

Specific environmental management plans or guidance documents have been prepared to cover the above hazards and risks. They are included listed below and included in Appendix D:

1. Acid Sulfate Soils Plan of Management.
2. Erosion and Sediment Control Guidance.
3. Biosecurity Monitoring and Management Plan.
4. Biting Insects Management Plan.
5. Biodiversity Management Plan.
6. Heritage Protection Plan.
7. Project Operations and Maintenance Plan.
8. Permanence Plan.

8.2 Risk assessment competency

All risk assessments shall be conducted by a team of subject matter experts and led by a facilitator competent in the risk management assessment method. All personnel who undertake field work shall be trained and competent to undertake JHA and Take 5 risk assessments.

8.3 Major accident prevention

The BC-S2C Major Accident Prevention (**MAP**) Program shall be implemented on the Project to ensure that all Major Accident Event (**MAE**) Hazards associated with the Project are identified and controlled in accordance with the MAE Hazard Management Procedure (*document reference to be generated*).

MAEs are those events which have the potential to result in major or catastrophic consequences as defined in the EHS Risk Matrix, such as a single fatality from a safety incident.

The MAP Program provides a structured and systematic approach to the identification of MAE Hazards, the communication and implementation of mandatory controls that prevent MAEs and protect personnel from the consequences of them, as well as the monitoring and verification of the implementation of those mandatory controls across all blue carbon restoration Projects.

During the tender phase, the BC-S2C MAE hazards are reviewed to determine those applicable to the activities which make up the SoW for each Program and Project site. These MAE Hazards are recorded in the Client's cloud-based Major Hazard Register and will be included in the Tender Risk & Opportunity Register.

Refer to Appendix C for the MAE hazards identified during project development.

8.4 Hazard assessment – project planning phase

During the planning phase, the contents of Appendix C (major hazard profile) is reviewed and updated where necessary to accurately reflect the awarded Project scope. The Project Manager and Project EHS professional also identify the

EHS risk assessments to be completed for the project in preparation for execution. The nominated risk assessments are included in the EHS project deliverables and are described below.

8.4.1 Project MAP register

The MAE Project Assurance Register Template (*document reference to be completed*) shall be developed and approved during the project planning phase in accordance with the MAE Hazard Management Procedure (*document reference to be completed*). The MAP Register is a project specific document that records:

- Each of the MAE hazards applicable to the project scope of work.
- The preventive and mitigating mandatory controls applicable to each MAE hazard.
- The assurance and verification checks that will be conducted on the project for each mandatory control;
- The project specific document references that define the requirements for each mandatory control.

Once the MAP Register and project targets for the conduct of MAE verification checks are approved, MAE Verification Check Template (*document reference to be completed*) will be prepared for use in the field during the execution phase.

8.4.2 Managing design EHS risks

EHS risks arising from design and engineering of plant are managed in accordance with the Safety in Design Management Procedure (*document reference to be completed*). The Project Engineering Lead will define the assessments to be conducted for the project scope which may include:

- HAZOP.
- HAZID for design.
- Ergonomic / human factor analysis.
- Constructability, operability, maintainability reviews.

BC-S2C's Project EHS professional(s) shall participate in the assessment workshops or as a minimum review the risk analysis and controls with the engineering lead to identify hazards and controls to be carried into the field execution phase of the project. The identified EHS hazards and controls to be carried into the field execution phase of the project shall be documented in individual project Hazard Registers and then incorporated into the project execution phase Safe Work Method Statements (**SWMS**), as applicable.

8.4.3 Hazard identification workshops

HAZID workshops shall be conducted on the Project for all high-risk activities and shall include environmental aspects and impacts. HAZID workshops will be coordinated and facilitated by a member of the BC-S2C EHS Team, and personnel from each relevant project function will be present (EHS HAZID Work Instruction CORP-HSE-WI-G-0037).

HAZID workshops will address elements of the scope of work, and will typically be arranged as follows:

- Project HAZID to review and identify high level Project EHS risks.
- Construction Package Risk Assessment, assessing a particular package or SWMS.
- Subcontractor Risk Assessment, assessing the scope of work allocated to a particular subcontractor.

Each HAZID workshop shall identify hazards, control actions and person(s) responsible for close out of the actions and document these in the Project Hazard Register. The actions shall be closed prior to the work commencing (as required by the Client's cloud-based IMS) and identified controls included in applicable project procedures, engineering documentation or SWMS.

No work except emergency response activities will commence without suitable and sufficient documented hazard identification and risk assessment processes being completed.

8.4.4 Site specific hazard assessments

Site specific EHS hazard assessments are conducted where the activity, location or environment present conditions where the residual risk is high or very high (e.g., disturbance to threatened species habitat, location of known security threat, exposure to infectious diseases). During the planning phase of a project or working in a new location the Site Manager shall, in consultation with the lead EHS professional, identify threat specific EHS hazard assessments to be conducted. For each Project site, these specific EHS Hazard Assessments could include:

- Security Threat Assessment.
- Environmental Impact Assessment.
- Health & Hygiene Risk Assessment.
- Natural Events Assessment.

8.5 Hazard assessment – project execution phase

The adequacy of the planning phase risk management activities will be reviewed and confirmed through SoW kick-off meetings and pre-mobilisation reviews, as described in Section 6.

The outcomes of the HAZID/ENVID and risk assessment processes undertaken during the Project planning phase are communicated to the workforce through the inclusion of controls in work method statements, procedures, and engineering documents. These are supplemented by the following risk assessment activities utilised during the Project execution phase:

- Project MAP Register reviews.
- Management of Change.
- JHA.
- Take 5.

EHS hazards identified from these programs shall be assessed using the Client's cloud based EHS Risk Matrix and documented as described in the relevant procedure or work instruction.

Hazards having a high or very high residual risk level shall be recorded in the project hazard register and a specific risk management plan shall be developed and implemented specific to the EHS hazard identified.

8.6 Management of change

Hazards and risks associated with temporary and permanent change relating to design, standards, regulations, work methods, procedures, facilities, materials and equipment and the Project organisation and its personnel, shall be identified and assessed by personnel competent in risk management and the Management of Change processes captured in the Client's cloud based system for changes that occur throughout the life of each Project.

All significant changes shall be documented and tracked and ensure that all affected personnel are kept informed of the implications and progress of the change. The implication of change shall be assessed by reviewing the original Risk Assessment.

BC-S2C shall revise the original Hazard Register / Risk Assessment and implement any actions to mitigate the risk resulting from the change. The Contractor shall disseminate this information to their workforce.

9 Implementation and operations

Environment hazards (aspects and impacts) identified for the Contractor Scope of Work for the Project will be managed in accordance with the following environmental protocols. These will be reviewed and updated in accordance with management of change (section 8.6).

9.1 Land access, community, and stakeholder management

9.1.1 Principle

To ensure that stakeholder, legislative and Client requirements associated with the Project are understood and implemented in planning and controls for land access.

9.1.2 Commitments

- Ensure that any land access is granted under the relevant NT approval conditions, permits, stakeholder arrangements, Client requirements and this EMP.
- Ensure that all site construction personnel are aware and comply with the relevant land access conditions;
- If applicable, ensure that a Start-up checklist is prepared, assessed, and recorded as part of the land access and approvals.
- All access onto private property is approved.
- No land access until permission is granted from the Land Access / Community and Stakeholder Liaison Lead or Team.
- Communications with relevant stakeholders and/or the community is preferentially made through BC-S2C Land Access / Community and Stakeholder Liaison Teams.
- Any changes to the land access conditions are communicated with construction personnel in the form of pre-start and toolbox talks.
- Ensure that obligations associated with land access are managed in accordance with the BC-S2C Control of Legal and Other Requirements Procedure (*document reference to be generated*).

9.2 Cultural heritage (indigenous and non-indigenous)

9.2.1 Principle

To ensure that any cultural heritage (indigenous or non-indigenous) or archaeological values that may be associated with the site are protected.

9.2.2 Commitments

- Each Blue Carbon restoration Project will adopt and understand the requirements set by the BC-S2C Heritage Protection Plan.
- Any proposed disturbance areas that may contain items of heritage or historical significance as determined in the pre-clearance surveys, heritage monitors and/or archaeologists will be made available for further assessment and on advisement of the Client.
- Ensure cultural awareness appropriate to the site and region is included in site inductions, prestart meetings, and toolbox talks.

- Ensure, where practicable, sites identified as culturally sensitive will be geospatially recorded, flagged or fenced and will be made known to the work force and any subcontractor.
- If artefacts, other archaeological material, or suspected burials are uncovered, work is to cease at that location and the artefacts or other materials are left in situ to allow further assessment.
- Where skeletal remains are encountered, site works at that location will cease and the Client will be contacted immediately. No further works will be conducted at that location until the Client has cleared the area. Any earth removed at the location where the discovery was made will also be left in situ for the investigation;
- Ensure access to any culturally sensitive areas is restricted for all personnel.

9.3 Water quality management

9.3.1 Principle

To minimise the impact on surface water and groundwater quality from Project related construction activities, as well as maintain appropriate water usage during the life of the Project.

9.3.2 Commitments

- Compliance with all NT legislative water quality requirements or as directed by set Project conditions and/or Client instructions.
- If groundwater is required for abstraction, ensure water is taken from an approved source for Project related activities and services.
- Appropriate management of onsite stormwater to avoid detrimental impacts to the surrounding environment.
- Water quality analysis and reporting where required inline with BC-S2C's Acid Sulphate Soils Plan of Management.
- Water usage monitoring and reporting on a monthly basis (as required). Results to be recorded in the Client's cloud based IMS.
- Ensure all spills to water are managed in accordance with the site-specific spill response procedure and in a major spill, the Project Emergency Response Plan (*document reference to be updated*) is followed.
- Compliance with Project related legislative water quality release limits.

9.4 Erosion and sediment control

9.4.1 Principle

To minimise the chance for erosion and sedimentation to occur that may degrade water quality of surrounding water bodies (including groundwater) and surrounding vegetation.

9.4.2 Commitments

- Land disturbance for all restoration activities will be confined to the minimum possible area and be confined to the areas shown on Project Restoration Design Drawings.
- A Project specific Erosion and Sediment Control Plan (**ESCP**) shall be developed in line with the Client's Erosion and Sediment Control Guideline (document reference to be updated) which provides the minimum requirements for the effective management of erosion and sediment control across all restoration Project sites.
- All ESC measures installed for the control of erosion, pollution and drainage are subject to a defined monitoring and maintenance programme. The ESCP will include a schedule of maintenance for management measures;

- Temporary erosion control measures will be used where required when there is a delay between stages of development.
- As far as is practicable, permanent erosion control will be installed on access roads and will be maintained for the duration of the construction period.
- Where required, stock-piled soils and grub will be protected by stabilisation and/or silt fencing and located away from drainage lines and native vegetation. Where practicable topsoil will be stock piled upslope of cleared land. Grubbing includes the removal of stumps, buried logs, stubs, and roots in the assigned work area.
- Stormwater and overland water flow is directed around works and stockpile storage areas via installed drainage.
- Discharge from installed drains is directed and dispersed such that erosion does not occur.
- Existing watercourses are maintained where practicable.
- Existing tracks are utilised wherever practicable. Vehicles will remain on designated access roads and tracks.

9.5 Contaminated land management

9.5.1 Principle

To ensure that all contractual and legislative conditions are adhered to when dealing with already present contaminated land or site works that may contribute to contaminated land causing environmental harm.

9.5.2 Commitments

- Already present contaminated land and other anthropogenic related contamination will be determined prior to site disturbance, with appropriate actions taken to prevent and mitigate impacts on the Project. This will be achieved by complying with all Client and regulatory requirements relating to contaminated land management;
- All contaminated sites are to be recorded, cordoned off to prevent thoroughfare and spread, then location of contaminated land communicated to site personnel.
- Only authorised waste contractors are to be used for the handling and transport of contaminated soils or other materials.
- In the event of a major spill to land from Project activities, follow the requirements of the Client's Emergency Preparedness and Response Plan and the site-specific Spill Preparedness and Response Procedure.
- Spill kits, appropriate to the nature and volume of the material are provided at all locations where pollution causing materials are held and/or used.
- Spills that occur outside a bund or off an otherwise sealed surface, regardless of size, are cleaned up, recorded, and reported as an incident.
- Ensure that spills are recorded in the Incident Reporting System within 24 hours of the incident occurring. Where the incident is a reportable incident (outlined in Table 9-1: Spill Reporting Criteria), BC-S2C's Project EHS Manager and the Construction Manager are to be notified immediately. The Construction Manager will inform the Chief Operations Officer.
- Under no circumstances will a vehicle be left unattended while refuelling.
- No oils or fuels to be dumped to the ground.
- Ensure that all incidents are reported in monthly environmental performance statistics.

Table 9-1: Spill Reporting Criteria

Spill Type	Reporting Criteria	
	Reportable	**Non-Reportable**
Oil spills to water (1)	Spills directly to water or reaching surface water (e.g., creeks, streams, rivers, lakes, ponds, or ocean). Spills from loading/unloading operations reported consistent with the cargo custody or responsibility.	Off-premise, transportation spills where the product is in the custody of a third-party carrier.
Oil spills to land	Spills must contact the soil to be reportable. Spills or leaks from tank bottoms and underground storage tanks. The total volume, in litres or m^3, of oil spilled to the land, regardless of the amount contained or recovered.	Spills inside lined containment or collection areas where there is no contact with soil. Off-property transportation spills where the product is in the custody of a third-party carrier.
Chemical spills to water	Chemical spills directly to water or reaching surface water (e.g., creeks, streams, rivers, lakes, ponds, or ocean*). Note unlikely due to geologic location*. Spills of all non-petroleum derived chemicals (e.g., methanol, sulfuric acid, caustic, stimulation acid, etc.).	Spills of insoluble solids to water that have no environmental impact (e.g., plastic pellets). Off-property, transportation spills where the product is in the custody of a third-party carrier.
Chemical spills to land	Spills must contact the soil to be reportable. Spills of all non-petroleum derived chemicals (e.g., methanol, sulfuric acid, caustic, stimulation acid, etc.). Spills or leaks from tank bottoms and underground storage tanks. Total mass, in kilograms, of chemical spilled to the land, regardless of the mass contained or recovered.	Spills inside lined containment or collection areas where there is no contact with soil. Spills of insoluble solids to land that have no environmental impact (e.g., plastic pellets). Off-premise transportation spills where the product is in the custody of a third-party carrier.

Notes

1) Oil includes all petroleum-derived liquids, such as crude oil, gasoline, diesel fuel, petroleum derived solvents (toluene, xylene, etc.), lubricating or hydraulic oil, asphalt, or any material defined as oil by a regulatory agency.

9.6 Vegetation management

9.6.1 Principle

To ensure that legislative and Client requirements associated with the Project are understood and implemented in planning and controls for disturbance works.

9.6.2 Commitments

- Minimise disturbance to the Project area where practicable;
- Ensure that any clearing is assessed to confirm compliance with relevant legislation, permits, Client requirements and this EMP.
- Ensure vegetation / timber, topsoil and subsoil stockpiles are managed appropriately and in accordance with Client and permit requirements.
- If applicable, any habitat features (hollows or other features with habitat potential) discovered during clearing, shall be preserved where practicable and as directed by the Environment Team.

- Any conservation significant flora known in the proposed disturbance area or Project region will be determined through a pre-disturbance survey or study, with species management procedures prepared and adhered to by all construction teams prior to disturbance or works in the region.
- No clearing or damage to vegetation outside the authorised restoration area unless otherwise approved by the Client.
- Cleared vegetation with habitat potential is retained for fauna, where practicable.
- Avoid clearing large trees.
- Ensure that obligations associated with ground clearing are managed in accordance with the BC-S2C Control of Legal and Other Requirements Register.
- Ensure that there are no unauthorised driving off designated access roads.

9.7 Waste management

9.7.1 Principle

To ensure that waste is managed in an environmentally responsible manner that also protects the health of all employees.

9.7.2 Commitments

- Avoid the production of wastes through the careful procurement of materials.
- Reduce waste production and maximise efficient use, reuse and recycling of resources and wastes.
- Prevent pollution to water/watercourse and land areas.
- Establish waste management procedures and controls consistent with the waste minimisation hierarchy principles of avoid, reuse, recycle, recover, treat, and dispose.
- Remove waste from site and dispose of it as soon as practical to an authorised waste facility in Borroloola.
- Comply with Client and legislative requirements relating to waste management.

9.8 Hazardous materials management

9.8.1 Principle

To ensure that works, including the use and storage of potential pollutants, are carried out in such a way that the potential for environmental impact is minimised and that, where it may occur, contamination is dealt with in a timely and responsible manner.

9.8.2 Commitments

- All materials (of any quantity) likely or known to cause environmental harm are stored in a designated, secure and bunded area that is as far as practicable located away from depressions and drainage lines which carry surface water.
- Hazardous materials are stored, handled, and disposed of in accordance with applicable statutory obligations, dangerous goods management requirements and relevant standards (e.g., AS:1940 or approved equivalent as required by the Client).
- A register of dangerous goods and hazardous materials shall be maintained on site (e.g., diesel fuel station, diesel fuel tanker route). Associated Safety Data Sheets shall accompany the register for ease of reference.
- A log of any contaminated materials for disposal is maintained to record the location the material was removed from, nature of the contaminant, date of excavation, quantity, and destination.

- The refuelling and maintenance of construction equipment is carried out such that waste materials can be confined, collected, and removed off-site efficiently.
- Any disposal or remediation of contaminated materials is in accordance with relevant statutory and Client requirements

9.9 Emissions management

9.9.1 Principle

To minimise the impact of vibration, noise, light, dust and other airborne pollutants from construction or commissioning works on the community and environment.

9.9.2 Commitments

- Planning the transport of plant and equipment to minimise heavy haulage movements.
- Machinery and vehicles are maintained in accordance with manufacturer's specifications.
- General vehicular movements around Project sites are kept to a minimum and only when necessary.
- Machinery and vehicles are in good repair and fitted with noise suppressors and emission control equipment.
- Progressive reinstatement of disturbed areas as soon as practicable to minimise potential sources for dust generation.
- Visual monitoring of dust occurs. Where visible dust is noted additional dust treatment (e.g., water trucks) will be applied.
- Dust suppression is carried out as required and in a regular and timely fashion such that dust does not create a nuisance for the workplace or nearby communities.
- All activities occurring at night to follow all legislative and Client conditions to minimise impacts of light pollution on the environment and community.
- Burning of wastes should be avoided.
- All community complaints are logged and recorded within the Client's social impacts cloud-based software.
- Any noise related complaint is logged and responded to.

9.10 Fauna management

9.10.1 Principle

To minimise the potential impacts on terrestrial and aquatic fauna values (including habitat loss and degradation) within, and adjacent to the Project site.

9.10.2 Commitments

- Vehicle access and movement of equipment is restricted to designated access tracks.
- The disturbance area is clearly demarcated prior to the commencement of works, in accordance with land clearing requirements.
- Monitor the integrity of the fences regularly to reduce the likelihood of fauna accessing operational areas.
- The Start Up Checklist is completed and approved prior to commencement of disturbance activities.

- Any conservation significant fauna known in the proposed disturbance area or Project region will be determined through a pre-disturbance survey or study, with species management procedures prepared and adhered to by all construction teams prior to disturbance or works in the region.
- Ensure that an experienced fauna spotter/handler is present on-site during clearing activities to conduct checks of vegetation to be cleared and to retrieve fauna, if necessary. The fauna spotter would operate under the relevant licence requirements and would be responsible for all activities related to the protection and welfare of individual fauna.
- No clearing or damage to vegetation outside the authorised disturbance area unless otherwise approved by the Client.
- Cleared vegetation with habitat potential is retained for fauna, where practicable.
- No fires on-site unless otherwise authorised by Client and a permit is in place.
- No feeding or handling of wildlife unless permitted or licenced to do so.
- No pets on site.
- Restrict speed limits on internal access roads to minimise the risk of vehicle strike.
- Injured or dead wildlife because of operational activities will be recorded. Where possible, this report should include the common and/or scientific name of the animal, the location the animal was found, and the action taken. Any conservation significant fauna will be recorded as a more severe incident and require more comprehensive reporting.

9.11 Pests, pathogens, weeds, and biosecurity management

9.11.1 Principle

To ensure pests and pathogens are managed correctly, and that biosecurity is maintained in compliance with the requirements of relevant legislation and Client approvals.

9.11.2 Commitments

- To avoid the introduction of new pest flora and fauna species to the Project site and adjacent areas, including access routes and receiving watercourses.
- Ensure vehicle and machine hygiene procedures are practiced managing and contain the spread of weeds across the Project site and neighbouring properties.
- Ensure correct storage and handling of wastes on site to minimise the likelihood of attracting pest fauna and vermin to offices, camps, and other areas of the Project site.
- No feeding of pest fauna.
- To avoid the threat of injury or contracting disease, no handling of pest fauna unless authorised, preferably by a licenced pest contractor.
- Undertake regular reporting of pest management activities and advise of new infestations as required.

9.12 Reinstatement and rehabilitation

9.12.1 Principle

To ensure that any sites that are temporarily disturbed are reinstated and rehabilitated and comply with relevant regulatory requirements and/or industry best practice.

9.12.2 Commitments

- Removal of all wastes, inclusive of liquid and solid waste, equipment, surplus materials and supplies just prior to reinstatement taking place.
- Ensure topsoil and subsoil stockpiles are maintained while cleared sites are left open prior to reinstatement.
- Where required, temporary work areas shall be reinstated and rehabilitated progressively.
- Disturbed sites to be reinstated back to original landform and stabilised.
- Utilise native soils for reinstatement and native seedstock or tube stock for revegetation if required.

10 Environmental management plans and procedures

This EMP will be supported by site specific subsidiary environmental management plans or procedures associated with the relevant environmental aspects and impacts outlined in Section 9. These sub-plans will be developed for the relevant aspects that are considered high risk in relation to the Project's SoW. In combination, this EMP and associated sub-plans will ensure compliance with all applicable Project conditions that are in line with Legislative and Approval requirements (Section 4.1).

Where identified from regulatory approvals for the Project, or the Project risk assessment, the following supporting Environmental Management Plans / Guidelines / Procedures may be required to be developed for the scope of work:

- Acid Sulfate Soils Plan of Management – Refer to Appendix D.
- Biodiversity Management Plan (refer to Appendix D).
- Biosecurity Monitoring Management Plan – Refer to Appendix D.
- Biting Insects Management Plan (refer to Appendix D).
- Community and Stakeholder Management Plan (refer to Appendix D).
- Cultural Heritage Protection Plan (refer to Appendix D).
- Emergency Preparedness and Response Management Plan (refer to Appendix D).
- Erosion and Sediment Control Guideline (refer to Appendix D) that will eventually be supported by site-specific Erosion and Sediment Control Plans.
- Permanence Plan (refer to Appendix D).
- Project Operations and Maintenance Plan (refer to Appendix D).
- Waste Management Plan (refer to Appendix D).

Other relevant BC-S2C corporate plans to be referenced at each stage of a Project's lifecycle are the:

- Crisis Management Plan.
- Safety Management Plan (refer to Appendix D).
- Quality Management Plan.

11 Communication, consultation, and engagement

An integral component of the BC-S2C EMS is ensuring open communication of information between all levels of management and employees (EHS Communication Guidelines *document reference to be completed*). All Project personnel are required to actively participate in effective environmental consultation, communication, and reporting processes.

11.1 Internal communications

11.1.1 Employee engagement

BC-S2C will implement a process for ensuring personnel involvement in the development of site-based restoration activities adopt the principles of this EMP and its associated procedures. This will include:

- Participation in HAZID workshops.
- Participation in risk assessments.
- Communicating EHS alerts and presentations.
- Delivering environmental training.
- Hazard reporting.
- Actively communicating this EMP to the wider work force.

11.1.2 Hazard reports

Hazard reports shall be conducted by personnel at the work site when hazards are identified as part of their normal duties. All personnel are required to identify the hazard, take remedial action to secure the work area, report the hazard to their immediate supervisor and record the details on the Client's cloud-based health and safety platform risk register.

The Project Supervisor is then responsible for identifying further preventative actions and assign responsible persons. Actions from hazard reports shall be recorded in the Client's cloud-based EHS database until closed out.

11.1.3 Health, safety, and environment reference material

Project management will ensure appropriate environmental resources are provided at the work site and are available to all personnel in hard copy or electronically.

11.1.4 Environmental notice boards

Environmental notice boards will be displayed in prominent positions around each Project restoration site. The notice boards will display the information shown in Table 11-1.

Table 11-1: EHS Reference Material for Notice Boards

Material	Maintained by	When
Environmental Policies	Site Environmental Representative	As updated
Environmental advice and alerts	Site Environmental Representative	As received
Environmental incident information and statistics	Site Environmental Representative	Weekly
Target zero observations	Site Environmental Representative	Weekly
Topical environmental information	Site Environmental Representative	Minimum monthly
Meeting minutes	Site Environmental Representative	Weekly
Emergency response contacts and requirements	Site Environmental Representative	As required, but minimum weekly

11.1.5 Environment meetings

Environment meetings are used as a communication tool for the workforce to identify environmental issues, plan upcoming events and communicate environmental concerns. The meetings shown in Table 11-2 will be undertaken. The Table below outlines the requirements in relation to the formal communication and consultation methods and schedules that will be used on each restoration project.

Minutes of all environmental meetings will be kept and circulated to the Project Team. The action column will reflect the name of the person responsible for performing the corrective action and the target date for completion.

The Project Manager will review minutes of meetings to ensure that items raised are appropriately responded to and added to the agendas of subsequent meetings.

The minutes of the environmental meetings will be posted on site notice boards.

Table 11-2: EHS Meeting

Communication Process	Schedule	Participants	Leader
Pre-Start Meeting	Daily	All site based employees including contractors	Construction superintendent, or supervisor
Toolbox Meeting	Weekly	All site based employees including contractors	Construction superintendent, or supervisor, Project Environmental professional
Environmental representatives meeting	Monthly	All environmental representatives from site by location Project Management Representative Client Environmental professional	Project Environmental professional

11.1.6 Pre-start meetings

Prior to the commencement of any shift, the responsible supervisor for each discipline and work group will initiate a pre-shift meeting that will involve all personnel under their control for the duration of the shift.

Pre-shift meetings will be documented and recorded within the Client's cloud-based EHS software, allowing for review throughout the shift if required. The meetings will allow for discussion of all expected activities for that shift and outline or discuss any applicable environmental hazards and risks and the required precautions to be implemented.

All leaders who are required to conduct pre-start meetings will receive training as part of their role development.

11.1.7 Toolbox meetings

All work sites will hold weekly toolbox meetings with personnel and the immediate supervisors and foremen. A series of structured environmental campaigns will be delivered during inductions and in Toolbox meetings to educate and raise awareness on the risk and controls associated within their scope of work.

Toolbox meetings shall be conducted by supervisors with support from the environmental team, and will be documented and recorded using an Attendance Record Form, with copies of the record available at site locations. Toolbox talks will be displayed on the site EHS Noticeboards.

11.2 External communications

All external environmental communications, including with government authorities, shall be undertaken in accordance with Client specifications and requirements. The Client's Community and Stakeholder Management Plan and associated procedures shall be used as the guiding documents for all staff wishing to communicate externally.

12 Environmental hazards and risks

Environmental hazard/risk assessments shall be undertaken as outlined in Section 8.

These assessments shall take into consideration the output of the Client's environmental desktop and field baseline investigations, Environmental Assessment), provisional Environmental Management Plans, previous HAZIDs and ENVIDs undertaken during Front End Engineering Design and any applicable environmental approvals, permits, licences or consents obtained or required to be obtained to complete restoration work.

13 Emergency management

BC-S2C's Emergency Preparedness and Response Management Plan shall interface with the contractor's Project Emergency Management Plan / Procedure. This must include arrangements being in place for the effective management of security and emergencies.

13.1 Emergency preparedness and response plan

A site-specific Emergency Preparedness and Response Plan (**EPRP**) will be developed and implemented to reflect the requirements of the mandatory controls identified in the Project MAP Register and Crisis Management Plan (document reference to be completed).

The site EPRP shall be integrated with the applicable contractor Emergency Management Plan.

The EPRP shall document the specific location of emergency response equipment and materials and the actions to be implemented to control further loss during and after an emergency. (e.g., shut down of equipment, security and protection of undamaged property, barricading area to ensure there are no more personnel interaction, the safe rendering of hazardous materials or explosives employed, etc.).

14 Incident reporting and investigation

The classification, notification and investigation of all incidents will be conducted in accordance with the BC-S2C EHS Incident Notification, Investigation and Reporting Procedures contained within its cloud-based EHS system. The Procedure applies to all BC-S2C operations and activities including those carried out by contractors engaged in activities under BC-S2C operational control.

15 Reporting and notification

All environmental incidents that occur on the Project, including near miss incidents, regardless of how minor, must be reported to a supervisor and recorded in the Client's cloud-based EHS software by personnel involved or witnesses to the incident as soon as practicable after the incident occurs. The site EHS Advisor or Environmental Representative (depending on the nature of incident) will be notified as soon as possible of any significant incident, or by the end of the shift for all other incidents.

Formal, documented reporting of incidents and injuries will be completed using the cloud-based EHS software and will be submitted within twenty-four (24) hours of the incident / event occurring. Sub-contractors must also complete the Client's cloud-based EHS software form to ensure all data required by BC-S2C is captured consistently. All sub-contractor incidents are to be reported to the Project EHS Advisor within 12 hours of it occurring.

The classification, notification and investigation of incidents are conducted in accordance with BC-S2C's EHS Incident Notification, Investigation and Reporting Procedure contained on its cloud-based system. The Procedure applies to all Contractor operations and activities including those carried out by contractors engaged in activities under Contractor operational control and include:

- Fatality.
- Lost time Injury.
- Restricted duties injury.
- Medical Treatment Injury.
- First aid Injury.
- Occupational illness.
- Near M\miss.
- Property damage.
- Environmental incidents causing environmental harm.
- Security incidents.

15.1 Regulatory reporting

Unless otherwise required by legislation or licence conditions, all regulatory reporting for the Project shall be made by the Client. This shall include notification of reportable incidents, injuries. and diseases to the appropriate regulatory bodies.

All events relating to a breach of regulatory obligations the EHS Manager shall be notified and inform the Client on the event and management actions taken.

Where the Project is notified by government agencies of a violation of regulatory requirements the Client Environmental Manager shall be immediately notified.

15.2 Incident investigation

Incidents will be investigated in accordance with the EHS Incident Notification, Investigation and Reporting Procedure. The incident investigation will be initiated immediately by the Project Supervisor and Project EHS professional. The investigation will be conducted in a timely manner and will include all evidence, such as photographs, statements, measurements, and drawings.

Responsibility and deadlines for approved close out actions will be clearly identified on the incident and injury investigation report form. The Consortium Manager will ensure the action items are closed out in an efficient and timely manner.

15.3 Consequence management

All personnel behavioural non-conformances on work sites incorporating breaches of regulations, procedures and processes will be managed in accordance with Discipline and Termination Procedure (*document reference to be updated*).

Behavioural non-compliances will be reviewed by the BC-S2C EMT.

15.4 Data entry

All incident notifications and investigations shall be entered into the BC-S2C cloud-based incident management system. This system shall also act as the Incident Register and allows the Project to monitor and analyse incident trends.

16 Work site environmental audits and inspections

16.1 Audits

Regular audits are conducted in accordance with the Client's Quality Management Plan (*document reference to be updated*) to establish the effects on identified environmental aspects, to ensure that established controls are being implemented and to measure the overall effectiveness restoration activities and environmental management. The audits will be performed as per the Project Compliance Audit Procedure (*document reference to be updated*) and use the Project Self-Assessment EHS checklist (*document reference to be updated*). The frequency of the audits will be identified in individual Project schedule's and will outline all required documentation to be audited for the lifecycle of the Project.

Personnel required to performing restoration EMP audits and inspections will prepare by:

- Review of the appropriate sections of the
- EMP and subsidiary documentation and the ISO 14001 standard.
- Check previous audit and inspection records for the Project and the status of outstanding follow-up actions.
- Check any complaints or known problems related to the area under review.
- Prepare an audit checklist.
- Plan the time to be allocated to the audit to ensure that all necessary checks can be accomplished.
- Audits will be conducted in accordance with the Assurance Procedure (*document reference to be updated*).

16.2 Inspections

Scheduled and regular workplace inspections will be undertaken in accordance with the Client's cloud-based IMS environmental inspection procedure to identify potential environmental hazards and to initiate corrective actions to ensure compliance with this plan.

Site visits by BC-S2C EMT members shall be completed in accordance with the Client's Site Induction. Inspection requirements apply to all Project personnel including its sub-contractors.

The inspections that will take place are outlined in Table 15-1: Planned Project Inspections.

Table 15-1: Planned Project inspections

Type	When	Who	What is Inspected
Daily workplace inspections	Daily	Supervisors	Immediate work area and equipment in work area
Weekly workplace inspections	Weekly	Supervisors, Project EHS Advisor	All site areas
Pre-start equipment inspections	Daily	Equipment / Machinery Operators	The equipment / machinery being used
EHS walkthroughs	Weekly	Senior Site Management	All areas
Management site visit inspections	Quarterly (as a minimum)	Corporate Senior Management	All site areas

16.3 Non-conformity and corrective actions tracking

The findings, conclusions and recommendations of all inspection, testing, audits, and other reviews of the implementation of the Clients EHS systems, incident and injury investigations, hazard reporting or any other risk or hazard management process used are:

- Documented.
- Have corrective actions identified.
- Have a person nominated as responsible for actioning.
- Have a date nominated for close-out.
- Monitored until closed out.

The BC-OC Management Team is responsible for monitoring action items, ensuring that all corrective and preventative actions have been implemented and that there is systematic follow-up to ensure effectiveness.

The Client's IMS will be used to record, monitor and follow-up on action items. Actions will also be entered into the Client's cloud-based Project Management system as required.

The Client shall also log all hazards into its IMS, ensuring that the hazard is risk assessed and appropriate controls and any actions are assigned to manage the hazard.

Close-out of high and medium severity actions will be approved by the BC-OC Project Manager.

An Action Tracking Report will be developed from the Client's IMS that will include:

- Number of actions closed in the last reporting period (month).
- Total number of actions added.
- Total number of actions.
- Number of actions overdue for closure.

Any changes to Project systems and procedures because of corrective and preventive actions are managed according to the work site Management of Change Procedure.

17 Project close-out

17.1 Lessons learned

Throughout the operational period of all BCER Projects, a Lessons Learned Register inside the Client's shall be maintained to capture information that can be used on future Projects. This shall be issued to the Chief Operations Officer (**COO**) in conjunction with the End of Project Report.

17.2 Demobilisation

Prior to demobilising from site, BC-S2C shall ensure the completion of a Contractor Demobilisation Checklist which will be recorded in the Client's cloud based Project Management EHS system.

18 Appendices

Appendix A – Nominal Roles and Responsibilities

Appendix B – Policy for Environment, Sustainability & Community

Appendix C – Project Hazard and Risk Profile

Appendix D – Environmental Aspects and Impacts Management Plans

Appendix A: Roles and Responsibilities

Who	EHS responsibilities	Reports to
Project Manager	Overall environmental performance of the Project.	Chief Development Officer (**CDO**) under Development phases. The COO during restoration, monitoring, reporting and verification (Operation phases).
	Contribute to the development, review, approval, and implementation of all Project environmental management systems and standards in the field.	
	Provide leadership in the implementation of all Project environmental initiatives, including Target Zero.	
	Specify and make available resources to enable execution of Project environmental management activities, including Target Zero.	
	Specify and make available resources to enable execution of Project emergency and crisis response systems.	
	Ensure personnel delegated responsibility for environmental management are adequately trained and competent to implement the requirements of this EMP under development and operational phases.	
	Ensure resources are specified to eliminate or minimise Project environmental hazards.	
	Participate in target-setting.	
	Coordinate and participate in Project environmental incident investigations and review reports and findings.	
	Arrange for and participate in HAZID workshop.	
	Ensure Project procedures consider the outcomes of HAZID workshops	
	Ensure compliance of subcontractors with the Project environmental standards and statutory requirement in the field, including duty of care.	
	Participate in Target Zero commitment workshop.	
	Participate in regular workplace inspections.	
	Review environmental audit findings and ensure items requiring corrective action are followed up and close-out reports are issued.	
	Review overall Project environmental performance.	
	Ensure subcontractors conduct their environmental responsibilities as required in the contract.	
	Attend and participate in environmental meetings as appropriate.	
	Review and monitor quality of subcontractors' environmental management activities.	
	Review work planning requirements to ensure they include adequate identification, assessment, and control of environmental hazards.	

Who	EHS responsibilities	Reports to
	Review environmental performance of subcontractors.	
	Review environmental standards and plans developed for each Project to ensure that BC-S2C and legislative requirements are met.	
	Review overall environmental performance and report to the Project Management and Corporate EHS Manager.	
	Interface with major subcontractors and client management, and with environmental personnel as required regarding environmental matters.	
Project Environmental Manager	Specify resources to enable execution of environmental activities on site.	Project EHS Manager. Project Manager.
	Specify resources to enable execution of emergency response systems on site.	
	Arrange for and participate in HAZID workshops.	
	Provide Environmental Advisors, Project line management, and BC-S2C with feedback on environmental performance.	
	Participate in the Target Zero commitment workshop.	
	Receive and circulate relevant environmental information.	
	Coordinate and participate in scheduled environmental audits and reviews.	
	Statistical analysis and environmental incident trend reviews.	
	Develop training and induction schedules and content.	
	Attend and participate in EHS meetings as required.	
	Coordinate and participate in workplace inspections.	
	Record, monitor and follow up close out of action items inside the Client's clou-based IMS.	
	Manager is responsible for the overall environmental performance of the site.	
	Ensure implementation of this EMP in the field.	
	Provide leadership in the implementation of all environmental initiatives.	
	Specify and make available resources to enable execution of environmental activities.	
Site / Construction Manager	Ensure resources are specified to eliminate or minimise environmental hazards.	Project Manager.
	Participate in incident investigations and review all incident reports.	

Who	EHS responsibilities	Reports to
	Arrange for and participate in HAZID workshops	
	Ensure construction procedures consider the outcomes of HAZID workshops.	
	Ensure compliance in the field of subcontractors with this EMP and relevant statutes.	
	Ensure compliance with statutory requirements, including duty of care.	
	Participate in workplace inspections.	
	Review audit findings and close out reports	
	Review overall Project environmental performance	
	Attend and participate in EHS meetings	
	Participate in HAZID workshops as required	
	Participate in Target Zero commitment workshop.	
	Ensure subcontractors conduct their EHS responsibilities as required in the Contract.	
	Attend and participate in EHS meetings as appropriate.	
	Review and monitor quality of subcontractor environmental activities.	
	Review work planning requirements.	
	Review overall Project environmental performance.	
	Review environmental performance of subcontractors.	
	Review audit reports and ensure items requiring corrective action are followed up.	
	Evaluate and incorporate new design initiatives.	
	Remain abreast of all relevant environmental laws, permits and standards.	
	Provide construction and field management and supervisors with environmental information current to their requirements.	
	Ensure environmental standards developed for each activity meet with BC-S2C requirements	
	Review overall Project environmental performance.	
	Schedule and coordinate site-based environmental activities.	
	Interface with Client environmental personnel during their site visits.	

Who	EHS responsibilities	Reports to
	Conduct periodic drills and reviews of emergency response systems and procedures.	
	Provide Project line management with feedback on environmental performance.	
Site Environment Team	Conduct workplace inspections	Project EHS Manager
	Participate in HAZID reviews	
	Record, monitor and follow up close out of action items	
	Update EHS notice boards	
	Be accountable for the environmental performance of all personnel under their control	
	Select and delegate environmental assignments to supervisors	
	Be accountable for ongoing development and implementation of Project environmental activities and practices	
	Confirm and make available resources to enable execution of environmental activities	
	Ensure corrective actions are implemented	
	Participate in Target Zero workshops	
	Comply with statutory requirements, including duty of care	
	Liaise with supervisors on relevant environmental issues	
	Attend and participate in EHS meetings	
	Review and close out environmental incident reports	
	Provide leadership to all supervisors through positive discussions on environmental initiatives	
	Conduct weekly workplace inspections	
	Deliver inductions as directed	
	Supervise and guide employees to perform their work in an environmentally conscious manner	
	Report all incidents and hazards to management	
	Monitor the use and maintenance of spill kits at all work sites	
	Ensure that all responsibilities for emergency response are clearly identified and understood by all personnel in a work group	
	Ensure work group employees participate in relevant environmental activities	

Who	EHS responsibilities	Reports to
	Comply with statutory requirements, including duty of Care	
	Monitor and enforce employee adherence to environmental requirements	
	Investigate and report all incidents.	

Who	EHS responsibilities	Reports to
Superintendents	Participate in HAZID workshops and audits	Site / Construction Manager
	Motivate employees to report all environmental incidents	
	Participate in Target Zero workshops	
	Conduct inspections of their work area per the Audit and Inspection Schedule	
	Plan for and incorporate environmental management into all work plans and activities	
	Open and maintain external communication during emergencies	
	Maintain a log of communications sent and received during an emergency	
	Report all incidents and hazards to management	
	Comply with statutory requirements, including duty of care	
	Report hazardous conditions	
	Participate in any relevant environmental training	
	Provide suggestions to improve environmental management on the Project	
	Report any near miss or environmental incidents	
	Participate in site EHS meetings as required	
	Participate in Target Zero four-hour training	
Supervisors	Plan for, and incorporate environmental management into all work plans and activities;	Superintendents
	Participate in workplace inspections	
	Ensures that instructions are issued and adequate information is provided to field-based employees which relate to environmental risks on site	
	Participate in any relevant environmental training	
	Report any near miss or environmental incidents	
	Provide suggestions to improve environmental management on the Project	
	Participate in Target Zero four-hour training	
All personnel, including subcontractors	Complies with all legislative requirements including this CEMP	Line Supervisor
	Participate in any relevant environmental training	

Who	EHS responsibilities	Reports to
	Report any near miss or environmental incidents to their Supervisors	
	Provide suggestions to improve environmental management on the Project	

Appendix B: Policy for Environment, Sustainability & Community

Appendix A: ROLES AND RESPONSIBILITIES

A.1 Roles and responsibilities

Project positions and responsibilities during all stages of Blue Carbon Ecosystem Restoration activities.

Appendix B: ENVIRONMENT AND SUSTAINABILITY POLICY

B.1 Environment and sustainability policy

Appendix C: PROJECT RISK AND HAZARD PROFILE

C.1 Project risk and hazard profile

Risk matrix completed at pre-development. A dynamic risk and hazard profile that is intended to be updated at major project milestones and, where incidents occur.

Risk assessment process	Description of risk or hazard	Methodology	Application						Reference procedures	
			Corporate	Business Division	New Opportunity	Project Planning	Project Execution	Project Close-out		
Business Risk Assessment - EHS Impacts	Identify, assess and control potential EHS impacts of conducting BC-S2C business	Bow-tie	■	■	■	■			Risk Management Procedure	TBC
Major Accident Event Hazard Assessment	Identify, assess, and control Major Accident Events Hazards	MAE Bow-ties	■		■	■	■	■	MAE Hazard Management Procedure	TBC
Technical EHS assessments										
Design risks	Identify, assess and document inherent design risks	HAZID, HAZOP, FMEA			■	■		■	Safety in Design Procedure	TBC
Design reviews - construction, operation, maintenance	Identify, assess and mitigation of EHS hazards introduced by the design when facility being constructed, operated, or maintained	HAZID, HAZOP			■	■			Safety in Design Procedure	TBC
Human Factors analysis	Identify, assess and control potential ergonomic, health impacts of operation as part of design	Human Factors Analysis Study			■	■			Safety in Design Procedure	TBC
Fire & Explosion analysis	Identify, assess and control potential sources of fire & explosion, and consequence mitigation through design	Fire and Explosio n Study			■	■			Safety in Design Procedure	TBC
Threat specific EHS hazard assessment (where applicable to Project)										
Security Threat Assessment	Identify, assess and mitigate security threats - travel and site based	Threat Assess ment	■	■		■			EHS Risk Management Procedure	TBC
Health Risk Assessment	Identify, assess, and mitigate health exposures - travel and site based	HRA	■	■		■			EHS Risk Management Procedure	TBC

Risk assessment process	Description of risk or hazard	Methodology	Application						Reference procedures	
			Corporate	Business Division	New Opportunity	Project Planning	Project Execution	Project Close-out		
Environmental / Social Impact Assessment	Identify, assess, and mitigate environment and community impacts	EIA, HAZID, Social Impact Study							EHS Risk Management Procedure	TBC
Natural Disasters Assessment (Emergency Events)	Identify, assess and mitigate potential natural disaster events which may affect the site (e.g., cyclone, wildfire, tsunami)	HAZID							EHS Risk Management Procedure	TBC
Crocodile attack	Sudden and unprovoked attack on staff or visitors at project restoration sites or, at the BC-I.	HAZID							Health & Safety Plan. Emergency Response Plan.	
Task based EHS hazard assessment										
Project EHS Assessment	Identify, assess and control potential EHS impacts specific to the Project & Site	HAZID							EHS Risk Management Procedure.	TBC
Construction Package EHS Assessment	Identify, assess and control potential EHS impacts specific to the Construction package	HAZID							EHS Risk Management Procedure.	TBC
Subcontractor EHS Assessment	Assess the EHS capability of subcontractors to inform management strategy Identify, assess and control potential EHS impacts of contract scope	PRE-QUAL / HAZID							EHS Risk Management Procedure.	TBC
Work Team Task Assessment	Work teams identify, assess and control EHS hazards of planned work	JHA							EHS Risk Management Procedure.	TBC
Personal Task Assessment	Individuals identify, assess and control EHS hazards of planned task	TAKE 5							EHS Risk Management Procedure.	TBC

Appendix D: Environmental Aspects and Impacts – Environmental Management Plans

D.1 Environmental aspects and impacts – environmental management plans

Bespoke environmental management plans (EMP) that address specific environmental hazard and risks identified during environmental scoping of Blue Carbon Ecosystem Restoration activities.

The following BC-S2C EMP and/or Guideline documents support this EMP:

- Acid Sulfate Soils Plan of Management.
- Biodiversity Management Plan.
- Biosecurity Monitoring Management Plan.
- Biting Insects Management Plan.
- Community and Stakeholder Management Plan.
- Aboriginal Heritage Protection Plan.
- Emergency Preparedness and Response Management Plan.
- Erosion and Sediment Control Guideline.
- Permanence Plan.
- Project Operations and Maintenance Plan.
- Waste Management Plan.