


BROKEN HILL BESS PROJECT
**BIODIVERSITY MANAGEMENT PLAN
STAGE 1 - BESS**

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Record of Consultation.

Date	Issues Raised	Addressed	Approved
24/06/2022	Document issued to DPI for consultation (Rev 0) Feedback received (DOC22/517552) 15 July 2022	Responses via Rev 1	No
08/08/2022	Document issued to DPI for consultation (Rev 2)		

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Development Consent Sections	Construction Management Plan References												
<p>Vegetation Clearance Schedule 3 – Section 10</p> <p>10. The Applicant must not clear any vegetation or fauna habitat located outside the approved disturbance areas described in the EIS.</p>	<p>Section 4.3.1.1)</p>												
<p>Biodiversity Offsets Schedule 3 – Section 11</p> <p>11. Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset, the Applicant must retire biodiversity credits of a number and class specified in Table 1 and Table 2 below, unless the Planning Secretary agrees otherwise. The retirement of these credits must be carried out in accordance with the <i>NSW Biodiversity Offsets Scheme</i> and can be achieved by:</p> <ol style="list-style-type: none"> Acquiring or retiring ‘biodiversity credits’ within the meaning of the Biodiversity Conservation Act 2016; Making payments into an offset fund that has been developed by the NSW Government; or Funding a biodiversity conservation action that benefits the entity impacted and is listed in the ancillary rules of the biodiversity offset scheme. <p>Table 0-1 - Ecosystem Credit Requirements</p> <table border="1" data-bbox="161 1122 1007 1249"> <thead> <tr> <th>Vegetation Community</th> <th>PCT ID</th> <th>Credits Required</th> </tr> </thead> <tbody> <tr> <td>Bluebush shrubland on stony rises and downs in the arid and semi-arid zones</td> <td>155</td> <td>10</td> </tr> </tbody> </table> <p>Table 0-2 - Species Credit Requirements</p> <table border="1" data-bbox="161 1373 1007 1469"> <thead> <tr> <th>Species Credit Species</th> <th>PCT ID</th> <th>Credits Required</th> </tr> </thead> <tbody> <tr> <td>Australian Bustard (<i>Ardeotis australis</i>)</td> <td>155</td> <td>11</td> </tr> </tbody> </table>	Vegetation Community	PCT ID	Credits Required	Bluebush shrubland on stony rises and downs in the arid and semi-arid zones	155	10	Species Credit Species	PCT ID	Credits Required	Australian Bustard (<i>Ardeotis australis</i>)	155	11	<p>Section 4.2 & Appendix F</p>
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<p>Biodiversity Management Plan Schedule 3 – Section 12</p> <p>12. Prior to commencing construction, the Applicant must prepare</p> <ol style="list-style-type: none"> Prior to commencing construction, the Applicant must prepare a Biodiversity Management Plan for the development in consultant with BCS, and to the satisfaction of the Planning Secretary. This plan must: <ul style="list-style-type: none"> Protecting vegetation and fauna habitat outside the approved disturbance areas; Minimising clearance and avoiding unnecessary disturbance of vegetation that is associated with the construction and operation of the development; Minimising the impacts to fauna on site and implementing fauna management protocols; Rehabilitating and revegetating disturbance areas with species that are endemic to the area; 	<p>Record of Consultation</p> <p>Section 4.3.1</p> <p>Section 4.3.1.1</p> <p>Section 4.3.4</p> <p>Section 4.3.6</p>												

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Development Consent Sections	Construction Management Plan References
<ul style="list-style-type: none"> • Maximising the salvage of vegetative and soil resources within the approved disturbance area for beneficial reuse in the enhancement or the rehabilitation of the site; and • Controlling weeds, feral pests and pathogens; <p>b) Include a program to monitor and report on the effectiveness of mitigation measures; and</p> <p>c) Include details of who would be responsible for monitoring, reviewing and implementing the plan.</p> <p>Following the Planning Secretary’s approval, the Applicant must implement the Biodiversity Management Plan.</p> <p><i>Note: If the biodiversity credits are retired via a Biodiversity Stewardship Agreement, then the Biodiversity Management Plan does not need to include any of the matters that are covered under the Biodiversity Stewardship Agreement.</i></p>	<p>Section 4.3.6</p> <p>Section 4.3.3</p> <p>Section 5.1</p> <p>Section 5.4</p>

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1 INTRODUCTION

Valmec Pty Ltd is committed to continually improving our environmental performance through cost-effective solutions that minimise our environmental impact, prevent pollution and support sustainable development.

In line with our Core Value of Respect – People, Environment, Culture, we:

- Adopt environmental management as a key value, requiring staff and subcontractors to work in accordance with our environmental management plans;
- Identify all significant potential environmental impacts relevant to our operations and implement risk controls to mitigate against such impacts;
- Fulfil all of our compliance obligations relating to legislation, standards, government guidelines and environmental approvals;
- Regularly review our performance, making changes as necessary to ensure ongoing improvement; and
- Monitor advances in environmental controls, technology, and regulatory trends relevant to our operations.

1.1 PROJECT OVERSIGHT AND BIODIVERSITY MANAGEMENT PLAN

The Biodiversity Management Plan has been aligned with the Development Consent Approval under Section 4.38 of the *Environmental Planning & Assessment Act 1979* which has been authorised by the Minister for Planning and Public Spaces and is registered as the Broken Hill Battery Storage System (BESS) Project - Application Number SSD-11437498.

The Development Consent was designed against an initial Environmental Impact Statement (EIS) and assesses the environmental impacts of the project against the activities being conducted also under Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*.

The EIS was prepared in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulations 2000*.

Subsequent to the EIS, a Biodiversity Development Assessment Report (BDAR), (rev12 dated 6 June 2022) has been completed and supersedes all mitigation measures within the EIS.

Components of the Development Consent and BDAR have been integrated within the Biodiversity Management Plan to ensure adequate oversight and control with the design, implementation and monitoring against the projects operational scope with the actual and potential activities that interact with the environment.

This oversight is to ensure all controls established through the Environmental Statutory and Regulatory Conditions have been defined and adequately controlled, supporting sound governance, compliance with environmental practices throughout the project life-cycle. This includes EPC Contract performance measures with biodiversity management for the project.

1.2 OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

In meeting the specific environmental performance criteria established under this Biodiversity Management Plan, the Principle Contractor (PC) must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the development, construction, commissioning and operation of the project.

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This Biodiversity Management Plan shall be implemented as defined in the Construction Environmental Management Plan-4017-PLA-HS-002, which includes further controls for environmental aspects and potential impacts.

1.3 CONTRACTOR TO PERFORM

Valmec Australia Pty Ltd (Valmec) and Fluence Energy Pty Ltd (Fluence) have agreed to establish the Consortium for the purpose of entering into the EPC Contract and performing and completing the Works in accordance with the conditions of the EPC Contract.

1.4 PROJECT DESCRIPTION

AGL Macquarie Pty Limited (AGL) will build, own, operate and maintain a Battery Energy Storage System (BESS) with a capacity of approximately 50 megawatts (MW) and 50 megawatt-hour (MWh) (Facility). The Project would provide a range of network services to augment the reliability of energy supply at Broken Hill. The Project would also provide storage and firming capacity to the National Energy Market (NEM) as well as additional services to assist grid stability including frequency control ancillary services.

The proposed location of the BESS (the Site) is on two lots at 74 to 80 Pinnacles Place, Broken Hill, 2880 (Lots 57 and 58 of DP 258288). The Project would also involve the installation of a transmission connection between the Site and the nearby TransGrid Broken Hill substation, which would traverse Lot 7302 DP1181 and Lot 2 DP 1102040, which forms Stage 2 of this project (also known as The Modification Area within the BDAR consisting of an area of 0.6 ha).



Figure 1: Proposed project boundaries

The Facility shall be constructed and installed by the Consortium within the battery limits defined in the Principal's Requirements (refer Figure 1 above). For more detail on the Project's Scope of Work, refer BHBESS - EPC Contract - Schedule 03 (Principal's Requirements) - Rev 4 FINAL.

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This report relates to the Biodiversity Management requirements relating to the Stage 1 project site only, covering the BESS only (Lots 57 and 58 of DP 258288).

1.5 PURPOSE

The purpose of this Biodiversity Management Plan is to describe the processes and workplace arrangements that the Consortium uses to minimise its environmental impact, manage compliance with project statutory and regulatory conditions, with a project objective of preventing pollution and delivering sustainable development solutions and initiatives.

1.6 SCOPE

This plan applies to all work activities under the scope of the AGL Broken Hill BESS Project, referred to hereafter as “the Project”.

1.7 DEFINITIONS

The following definitions apply for the purpose of this plan:

Term	Definition
BAM	Biodiversity Assessment Method.
BDAR	Biodiversity Development Assessment Report.
BCS	Biodiversity Conservation and Science Directorate of the Department.
CEMP	Construction Environmental Management Plan.
Competent	Ability to apply knowledge and skills to achieve intended results from operational experience and education.
Conformity	Fulfilment of a requirement (ie. EIS, Development Consent, EPCC, and CEMP).
DC	Development Consent as required by the Minister for Planning and Public Open Spaces and Section 4.38 of the Environmental Planning & Assessment Act 1979.
EIS	The Environmental Impact Statement for Broken Hill Battery Storage System
Environment	Surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans and their interrelationships.
Environmental Aspect	An element of an organisation's activities, products, and services that interact with the environment. These can include discharges to water, emissions to air, waste and use of natural resources and materials.
Environmental Impact	Any change to the environment, whether adverse or beneficial, resulting from a facility's activities, products, or services (the effect that people's actions have on the environment).
EPCC	Engineer Procure Construct Contract.
Incident	Occurrence arising out of or in the course of work that could or does result in death, injury or ill-health, or equipment or environmental damage. <ul style="list-style-type: none"> • ‘Accident’ refers to incidents incurring injury, ill health, damage or harm. • ‘Near-miss’ refers to incidents not incurring injury, ill health, damage or harm but have the potential to do so.
Material harm	Is harm that: <ul style="list-style-type: none"> • involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; • results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)
Minimise	Implement all reasonable and feasible mitigation measures to reduce the impacts of the development.
Non-compliance	An occurrence, or development that is a breach of this Biodiversity Management Plan but is not an incident.
Non-conformity	Non-fulfilment of a requirement (ie. EIS, Development Consent, EPCC, and CEMP).
PCT	Plant Community Type (Species within the Biodiversity Management Plan Operational Scope).
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements.

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Term	Definition
Rehabilitation	The restoration of land disturbed by the development to a good condition, to ensure it is safe, stable, non-polluting and sustainable.
Significant Environmental Aspect	An Environmental aspect that has significant characteristics in terms of risk impact (ie. Legal requirement, protected species, habit, licence conditions), and if not controlled can cause a significant impact (ie. Pollution, degradation, environmental harm, prosecution, breach, non-compliance and or non-conformity).
Shall	‘Shall’ indicates a mandatory provision within this Biodiversity Management Plan.

2 PLANNING

2.1 HSEQ POLICY AND CORE VALUES

The Consortium and its subcontractors will conduct all work in accordance with the following:

- Valmec HSEQ Policy - VAL-POL-001
- Valmec Core Values - VAL-POL-002

These will be posted on the noticeboard/s on the Project and are freely available to all interested parties via our website www.Consortium.com.au. All personnel are introduced to Consortium policies during their induction.

2.2 CONTEXT OF THE ORGANISATION

The Consortiums executive management and board review and evaluate the context of the organisation with all projects during the planning phases to address risk and opportunity, which relate to external and internal factors, supporting the strategic direction of the business and the needs and expectations of interested parties.

Interested parties are those parties who may receive or be impacted by our products and services, or those parties who may otherwise have a significant interest in the project. Refer to Appendix 1 Interested Party Analysis to address risk and opportunity with stakeholders.

Any project improvement planning is prepared following periodic reviews of any planning arrangements and to assist with any management of change towards compliance and or continual improvement, to ensure the project is meeting environmental performance objectives in line with the project deliverables.

2.3 COMPLIANCE OBLIGATIONS

For the purposes of this plan, the project and subsequently Consortium’s environmental compliance obligations are contained within the following legislation as defined from the EIS, Development Consent and EPC Contract and includes:

- Biodiversity Conservation Act 2016 (NSW)
- Biosecurity Act 2015 (NSW)
- Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)
- Environmental Planning & Assessment Act 1979
- Environmental Planning & Assessment Regulation 2000
- Protection of the Environment Operations Act 1997
- Environmental Subordinate Legislation and Guidelines
- Industry and Governmental Approval Bodies
- Australian and International Standards
- Projects Legal Register

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Actions to address specific compliance requirements have been listed in the relevant sections of this plan inclusive of conditions set by the Development Consent and included in the Projects Legal Register.

Environmental legislation is also accessed through Lawstream via the Consortium intranet, or via the NSW EPA government website. Environmental standards are also through SAI Global via the Consortium intranet, or requested through the Consortium HSEQ team. Other documentation may be requested through the relevant Consortium or AGL representative.

2.4 ENVIRONMENTAL PERFORMANCE INDICATORS

Within the context of Consortium objectives, AGL policy, compliance obligations and community expectations, the following environmental targets have been developed against this plan:

Performance Indicator	Target	Result
<i>General</i>		
Number of major non-conformances identified during audits	0	
Number of environmental incidents notifiable to the regulator	0	
Number of environmental regulator notices, fines or prosecutions	0	
<i>Aspect-specific</i>		
Number of flora degradation outside of the construction area.	0	
Number of fauna injured or killed as a result of construction within the assessment map.	0	
Number of fires started.	0	
Number of noxious weed / seed / pathogen introductions	0	

2.5 ENVIRONMENTAL AWARENESS

The ‘Environmental Induction’ module of the Consortium is an awareness module that introduces employees and subcontractors to:

- The importance of sound and sustainable environmental management;
- The Environmental Policy;
- Biodiversity Management and performance indicators;
- Consortium’s significant environmental aspects and the key risks associated with each aspect;
- The minimum operational controls required for each risk and associated environmental aspect;
- The monitoring of and evaluation of the effectiveness with environmental operational controls;
- The process for responding to and reporting of environmental incidents; and
- Environmental assurance monitoring and reporting within the project.

Project specific environmental requirements including but not limited to Biodiversity Management obligations and associated Environmental Aspect and Impact controls shall be completed during the Project Induction process. All individuals must complete the Project Specific Environmental Induction before working onsite.

Additional refresher training will be conducted on various environmental matters from time to time during dedicated training sessions, emergency drills or periodic toolbox meetings. Subcontractors will be required to participate if they are at the workplace at the time and the content relates to their scope of work.

Training on the environmental aspects specific to everyone’s individual role will be addressed during other training specific to that specific role (ie. Scrubbing and clearing). Training in this context refers to a range of

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methods (e.g. formal in-house work group training and one-on-one coaching), which will be documented against learning outcomes and required competencies.

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2.6 ROLES AND RESPONSIBILITIES

All individuals within the project are responsible for following processes and taking all care to control the environmental conditions within their specific duties and overall obligations. All individuals are accountable for achieving their objectives within the area of responsibility, as a minimum and as outlined below:

2.6.1 Senior Management (Directors, General Managers and Operation Managers)

Responsible for the overall environmental performance of the Consortium including (but not limited to):

- Maintain an awareness of environmental matters relevant to Consortium's scope of work.
- Ensure resources are provided and processes established to minimise environmental risks.
- Ensure processes are in place to ensure reported incidents and other environmental issues are addressed appropriately.
- Ensure processes are in place to comply with legal requirements.
- Verify that resources and processes are in place and being used effectively.
- Monitoring and measurement of Environmental conditions are being evaluated and reported upon.

2.6.2 Project Manager

Overall responsibility for establishing any further Consortium Environmental duties within the project, including (but not limited to):

- Ensure that this plan meets workplace and AGL needs, and is fully implemented.
- Demonstrate visible leadership and lead by example at all times.
- Report and escalate Environmental incidents in accordance with the agreed timeframes.
- Manage relationships within the Consortium, in liaison with Consortium Management and AGL.
- Liaise with the HSE Lead with all areas of this plan, implementation and performance evaluations.
- Action any risks or opportunities with this plan.

2.6.3 Immediate Managers and Supervisor(s)

Responsible for managing the environmental compliance within the project and their work crew(s) with activities, that interact with the environment and controlled through this plan, including (but not limited to):

- Demonstrate visible leadership at all times with Environmental, activities & associated controls.
- Communicate any risks with construction activities that interact with the Environment to work crews at pre-start meetings and identify adequate controls.
- Review authority to work (ATW), safe work method statements (SWMS), job hazard environmental analysis (JHEA) and ensure the key environmental risks (Environmental Aspects) of the crew's work activities are adequately identified and controlled as required by this plan.
- Ensure that any ATW or permit to work issued is understood and Environmental controls applied with the permit holder and the work crews.
- Ensure any Environmental "Hold Points" are listed and detailed on the JHEA.
- Stop work if conditions change or the required Environmental controls are not fully established or not effective in meeting the conditions of this plan.
- Resolve Environmental hazards or concerns that are reported by the work crew and escalate as required.
- Coordinate any local emergency response within the work area for any actual Environmental impacts.
- Work closely with the HSE Lead and HSE Advisor within the project to ensure compliance obligations with activities are understood and achieved within this plan.
- Liaise with the HSE Lead and HSE Advisor with all areas of this plans implementation and performance evaluations.

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2.6.4 HSE Lead

Responsible for ensuring Environmental Management systems and supporting activities meet the conditions of this plan and provides oversight with such conditions within the project with pre-mobilisation, mobilisation, execution, performance evaluation, reporting, incident management, initiatives and improvement activities.

The HSE Lead shall be onsite and shall be responsible for operational oversight with assurance audits, Environmental controls and the HSE Advisor for the project, including (but not limited to):

- Assist with the mobilisation and implementation of this plan.
- Demonstrate visible leadership by example at all times within the Environmental function.
- Monitor the implementation of this plan and overall Environmental performance outcomes.
- Assist Line Management to ensure this plan meets the needs of AGL and within the project.
- Ensure that all incidents and non-conformances are investigated according to the level of risk exposure.
- Schedule Environmental assurance audits and inspections to meet project and AGL requirements.
- Assist with reporting on Environmental objectives and performance within the project.
- Monitor the status of corrective actions arising from audits and inspections and evaluate effectiveness.
- Support the Project Team with all Environmental requirements, guidance, and information.

2.6.5 HSE Advisor

The HSE Advisor is responsible for implementing, supporting and monitoring Environmental controls and performance through assisting workplace personnel to meet their Environmental duties within this plan.

The HSE Advisor requirements include (but not limited to):

- Demonstrate visible leadership by example at all times within the Environmental function.
- Assist other workplace personnel in understanding and fulfilling their Environmental responsibilities.
- Maintain Environmental training and awareness to schedule with inductions and onsite activities.
- Facilitate Environmental activities against this plan and monitor effectiveness with operational controls.
- Monitor workplace performance against this plans Environmental objectives.
- Maintain oversight control of all plant, equipment, chemical storage, lay-down and construction areas.
- Coordinate Environmental Emergency Response readiness and activities.
- Conduct Environmental assurance audits and inspections with activities against this plan.
- Maintain Environmental communications relevant to the work scope and project phases.
- Maintaining corrective actions arising from audits and inspections, evaluating effectiveness.
- Liaise with the HSE Lead with all areas of this plan's implementation and performance evaluations.

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2.6.6 All Personnel

All personnel are responsible for taking reasonable care to ensure they understand the requirements of this plan within its operational scope of the project, including (but not limited to):

- Understanding the Environmental risks and associated controls with Bio-diversity Management during construction activities.
- Not proceeding if unsure of environmental responsibilities and requirements and seek advice from their immediate Supervisor, HSE Advisor or HSE Lead.
- Comply with the requirements of this plan, authority to work (ATW), safe work method statements (SWMS), job hazard environmental analysis (JHEA) and ensure the key environmental risks with the work activities are adequately identified, understood and controlled as required by this plan.
- Ensure any Environmental “Hold Points” are listed and detailed on the JHEA.
- Report and control any Environmental incidents that occur from construction activities, immediately to their supervisor for response and escalation.
- Support the implementation of this plan and identify any areas of Environmental Improvement.

2.6.7 Consortium Obligations - Biodiversity Management

Obligations under the Environmental Impact Statement, Development Consent and EPC contract for Biodiversity Management is detailed within Appendix F – Biodiversity Division of Responsibility.

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3 ENVIRONMENTAL ASPECTS, ASSOCIATED IMPACTS AND RISK CONTROLS

Environmental Aspects are elements of Consortium’s activities, products or services that can interact with the environment. Examples of environmental aspects include:

- Project activities that interact with air, land, water, flora, fauna, community, heritage.

Environmental impacts are any changes to the Environment (adverse or beneficial) from the Consortium’s activities, products, or services. Examples of environmental impacts include:

- Pollution, degradation, noise, dust, visual amenity, light, odour, complaints, unauthorised discharges, air quality, water quality, soil quality, erosion, loss of habitat.

Environmental Aspects that are classified as **significant** are those aspects of priority which are required to be controlled. All aspects of significance are listed on the Projects Environmental Aspects Register.

3.1 ENVIRONMENTAL ASPECTS RISK MANAGEMENT PROCESS

The Consortium for the project has developed a Construction Risk Assessment which address all Environmental aspects within the project scope and identify required controls. An Environmental Aspects Register has been defined which specifies such controls for all Environmental aspects within this plan, required by Environmental Impact Statement the Development Consent and EPC Contract.

The Environmental Aspects Register for the project details Biodiversity Management risk factors and associated controls that shall be applied with all construction activities.

Critical controls for Biodiversity risks are to be listed on the authority to work and safe work method statement as a minimum any further controls and hold points are also to be listed within the job hazard environmental analysis (JHEA) with construction activities.

All construction activities and Environmental risks are to be understood and applied by the individuals supervising and conducting such activities, and all Environmental operational controls are to be verified with all personnel prior to activities occurring and when any change with the activities or work scope occurs.

Refer to: Project Environmental Aspects Register.

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4 BIODIVERSITY MANAGEMENT PLAN

The Biodiversity Management Plan describes how the project identifies, protects and manages native vegetation and fauna habitat. The aim of the plan is to provide a schedule of impact mitigation measures along with ongoing conservation, restoration, and maintenance activities for the bushland to be retained and or remediated on the site.

The plan details the activities, processes, and methods to achieve this and includes a description of the measures and timeframes that require implementation for:

- Protecting types of vegetation and fauna habitat outside the approved disturbance areas;
- Maintaining the current site values in retained areas and preventing clearing that would increase threats to biodiversity in better-conditioned areas;
- Minimising clearing and avoiding unnecessary disturbance of vegetation that is associated with the construction and operation of the development;
- Delineation of the Modification Area to ensure there are no impacts outside of the Modification Area boundary;
- Minimising the impacts to fauna on site and implementing fauna management protocols;
- Rehabilitating and revegetating disturbance areas with species that are endemic to the area;
- Maximising the salvage of vegetative and soil resources within the approved disturbance area for beneficial reuse in the enhancement or the rehabilitation of the site;
- controlling weeds, feral pests and pathogens;
- Includes a program to monitor and report on the effectiveness of mitigation measures;
- Provide discussion on staff training, erosion and sediment controls, weed control measures and management and removal of waste; and
- Include details of who is responsible for monitoring, reviewing and implementing the plan.

4.1 BIODIVERSITY ENVIRONMENTAL ASSESSMENT

The project Environmental Impact Statement (EIS) has identified that the majority of impacts on biodiversity would occur during construction from clearing of native vegetation and removal of habitat for a limited range of flora and fauna. The requirements for biodiversity management has since been superseded and updated within the Biodiversity Development Assessment Report (BDAR) (Rev12, dated 6 June 2022).

Construction of the Project would involve the removal of approximately 0.27 hectares of low condition native vegetation, Plant Community Type (PCT) 155 - Blue-brush shrubland on stony rises and downs in the arid and semi-arid zones from the site. Another 0.55 hectares of low condition native vegetation (PCT 155) occurs along the underground transmission line corridor.

One threatened fauna species listed under the EPBC Act has a moderate likelihood of occurrence in the Project Area due to an association with PCT 155: the Dusky Hopping Mouse (*Notomys fuscus*). An Assessment of Significance in accordance with the 'significant impact' criteria for Vulnerable Species under the EPBC Act was undertaken for the species and concluded that it is highly unlikely to occur within the Project Area and be impacted by the Project, given the limited records of this species in this vegetation type, the degraded state of the Project Area, and the absence of tracks or burrows.

No threatened biodiversity at risk of Serious and Irreversible Impacts are known or considered likely to occur in the Project Area or would be impacted by the Project.

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Direct and indirect impacts are proposed to be mitigated primarily through project design, as well as management and mitigation measures, including offsetting. Refer to:

- Appendix B – Biodiversity Study Area Map
- Appendix C – Vegetation Zones - PCT 155 Bluebush Shrubland (Low and Moderate Condition)

4.2 PROJECT CANDIDATE SPECIES BIODIVERSITY CREDITS AND OFFSETS

Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset, the Consortium must retire biodiversity credits of a number and class.

These credit offset requirements include:

- Ecosystem Credit Requirements for Vegetation Community.
- Species Credit requirements for Species Credit Species.

The types of vegetation and species credits are detailed in Appendix 5 – Biodiversity Credit Offsets.

The retirement of these credits must be carried out in accordance with the *NSW Biodiversity Offsets Scheme* and can be achieved by:

- Acquiring or retiring 'biodiversity credits' within the meaning of the *Biodiversity Conservation Act 2016*;
- Making payments into an offset fund that has been developed by the NSW Government; or
- Funding a biodiversity conservation action that benefits the entity impacted and is listed in the ancillary rules of the biodiversity offset scheme.

A calculation of the nature and extent of biodiversity credits (ecosystem and species) required due to ecological impacts associated with the Project has been undertaken using the Biodiversity Assessment Method. Calculator (BAM-C).

The biodiversity credits relate to the following vegetation and credit requirements:

- PCT 155: Bluebush Shrubland (*Sclerolaena* [Copper-burr] and *Maireana*)
- Australian Bustard (*Ardeotis Australis*).

Australian Bustard is a "Threatened Species" and is the only *candidate* species which has been assumed to be present.

Australian Bustard (fauna species) is mobile and wide-ranging and could not be ruled out due to absence of limiting habitat. This species may move throughout the Project Area on occasion. As such, this is the only candidate species which has been assumed present for offsetting purposes.

4.3 BIODIVERSITY MANAGEMENT PLAN AND MITIGATION CONTROL MEASURES

The following Biodiversity Management Plan and mitigation control measures during construction outline the requirements and operational controls that are to be established, monitored and maintained throughout the construction phases, as detailed within the BDAR (Table 15) and shall include the following:

- Pre-construction measures including:
 - Preparation of a Biodiversity Management Plan (this document);

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- Delineation of the site;
- Staff training;
- Weed management strategy;
- Construction phase measures including:
 - Erosion and sediment controls;
 - Hygiene protocols to prevent the spread of weeds or pathogens between affected areas and unaffected areas.;
 - Weed control to manage the potential dispersal and establishment of weeds during construction in accordance with the Biosecurity Act 2015;
 - Excavation through ephemeral stream.

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Table 4-1 Mitigation Measures Summary

Project Stage	Trigger for Action	Monitoring frequency and duration	Monitoring performance criteria	Monitoring completion criteria	Person Responsible	Reporting frequency to organisation	Reporting frequency to DPE	Reference within BMP
Pre-Construction	Preparation of BMP Update of BMP	Monthly As required (due to inspection / audit finding)	Acceptance by DPE	Review monthly for currency	Project Manager	Prior to works and monthly thereafter	Prior to works As required	4.3.1
Pre-Construction	Delineation of site	Prior to first disturbance, weekly inspection thereafter	Completed inspection checklist	Weekly	Site Supervisor / HSE Officer	Prior to works and monthly thereafter	N/A	4.3.2
Pre-Construction	Staff Training	Pre-start Toolbox	Completed Training Register	All personnel must have completed pre-start training prior to commencement of work	HSE Officer / Project Manager	Prior to personnel commencing work onsite and monthly thereafter	N/A	4.3.3
Pre-Construction	Weed Management Strategy	Prior to first disturbance, prior to site entrance by all vehicles	Weed mapping of weeds prior to disturbance, inspection of vehicles for hygiene prior to site entrance	Inspection of all vehicles (project & subcontractor) inspected for hygiene	HSE Officer /Site Supervisor	Prior to personnel commencing work onsite and as required (dependant of vehicle movements offsite)	N/A	4.3.4 Appendix G

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Project Stage	Trigger for Action	Monitoring frequency and duration	Monitoring performance criteria	Monitoring completion criteria	Person Responsible	Reporting frequency to organisation	Reporting frequency to DPE	Reference within BMP
Construction	Erosion and sediment controls	Prior to first disturbance, weekly inspection thereafter	Completed inspection checklist	Weekly	Site Supervisor / HSE Officer	Prior to works and monthly thereafter	N/A	Section 4.6 of CEMP (4017-PLA-HS-001)
Construction	Hygiene protocols	Prior to first disturbance, prior to site entrance by all vehicles	Inspection of vehicles for hygiene prior to site entrance	Inspection of all vehicles (project & subcontractor) inspected for hygiene	HSE Officer /Site Supervisor	Prior to personnel commencing work onsite and as required (dependant of vehicle movements offsite)	N/A	4.3.4
Construction	Weed control	Prior to first disturbance, prior to site entrance by all vehicles	Weed management prior to disturbance, ongoing monitoring weekly thereafter	Weekly	HSE Officer /Site Supervisor	Prior to site disturbance and weekly thereafter	N/A	4.3.4
Construction	Excavation through ephemeral stream	Does not form part of Stage 1 works (refer to 4017-PLA-HS-012)						

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4.3.1 Preparation of a Biodiversity Plan

This plan has been developed in consultation with the BCS to outline the appropriate mitigation measures as established by the latest BDAR (rev12, 6 June 2022). This plan is to be kept current, and reviewed and updated as necessary.

Where changes occur, the following steps to capture and document the changes must occur:

- Documentation and review of changes within the risk and impact assessment matrix, and where required development and implementation of control action;
- Update of any impacted plans (including but not limited to: this BMP and the erosion and sediment control plan, within the CEMP – 4017-PLA-HS-001);
- Toolbox meeting to inform project personnel of changes, and the associated risk assessment and control actions to be implemented/observed;
- Where changes are significant (eg response to legislative changes, updated plans submitted to AGL for review and approval prior to implementation);
- Update to documents that are available for the public via the website, ensuring that the revision and date are updated to clearly identify the most up to date edition.

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4.3.2 Exclusion Zone Controls with Plant Community Type (PCT) 155 – Bluebush Shrubland

On mobilisation the project shall establish an exclusion zone around the area of Plant Community Type (PCT) 155 - Bluebush Shrubland which is in “moderate” condition as identified in the Biodiversity Study Area Map, to ensure it would not be impacted by the Project.

The shrubland shall be assessed on mobilisation with a flora audit with associated criteria; and monitored for compliance and any changes in conditions that may affect the PCT 155 - Bluebush Shrubland.

Construction activities within Stage 1 must not exceed the approved disturbance, which is governed by the property boundaries (Lots 57 and 58 of DP 258288). Whilst the majority of the lots are contained within a highly degraded / cleared zone, there is PCT155: Bluebush low condition mapped areas directly adjacent to the allotments south and west. These boundaries are to be clearly demarcated and signed as an environmental exclusion zone to mitigate any accidental breach of these boundaries.

Upon completion of the demarcation, an inspection will be completed by the Site Supervisor in conjunction with the HSE Officer, who will confirm that no breaches in proposed disturbance limits have occurred. This is to be recorded and signed off on an inspection checklist.

Refer to:

- Appendix B - Biodiversity Study Area Map
- Appendix C - Vegetation Zones - PCT 155 Bluebush Shrubland (Low and Moderate Condition)
- Appendix D – Exclusion Zone – Stage 1

4.3.2.1 Vegetation Clearance

The Consortium must not clear any native vegetation or fauna habitat located outside the approved disturbance. The project site boundaries are to be clearly demarcated and signed to show the project boundary limits. Prior to the clearance of any vegetation, confirmation must be made that all vegetation is clear of fauna, and where necessary a suitably qualified fauna spotter engaged to confirm and/or clear vegetation to mitigate the potential of any accidental fauna strike.

Project vehicles must only traverse the designated access tracks, which for Stage 1 works is from the bitumen road and enter the site via the single point of entry.

4.3.3 Biodiversity Awareness Induction and Ongoing Training

On mobilisation all staff, workers (including contractors and visitors) shall undergo training as part of their onsite approval conditions, which will include the importance of Biodiversity Management and operational controls within this plan, inclusive of roles and responsibilities.

The training will also focus on:

- the Consortiums Environmental Policy,
- Environmental Aspects and associated impacts,
- operational controls inclusive of exclusion zones to protect flora,
- types of fauna within the construction footprint,
- erosion and sediment controls,
- unexpected species and finds procedures.

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which are also supported through the following documentation.

Refer to:

- 4017-PLA-HS-002-Broken Hill BESS Project Construction Environmental Management Plan
- 4017-PLA-HS-009-Aboriginal and Cultural Heritage Management Plan (Stage 1)
- 4017-PLA-HA-010 Soil and Water Management Plan (Stage 1)

Additional refresher training will be conducted on various environmental matters from time to time during dedicated training sessions, emergency drills or periodic toolbox meetings. Subcontractors will be required to participate if they are at the workplace at the time with emphasis on the content relates to their scope of work.

Prior to commencement of any disturbance works, a toolbox meeting will run through all of the required environmental controls to be installed prior to any disturbance and maintained throughout the period of construction which will include;

- The location and presence of exclusion zones;
- The weed management requirements (weed clearance and correct disposal and vehicle hygiene procedures);
- Removal methods of weed species to be completed by mechanical or via controlled substances that are in accordance with Australian Standards;
- Erosion and sediment controls;
- Unexpected finds procedures (stop works and contact details); and
- Fauna management (when fauna spotters are required and emergency contacts for fauna).

All training must be recorded in a register.

4.3.4 Biosecurity Hygiene Protocols (Weed and Seed Management)

Three weeds were recorded during field surveys within the Project Area including:

- African Boxthorn (*Lycium ferocissimum*): listed as a manageable high threat weed (HTW) which can be effectively managed with specific management practices. African Boxthorn is also listed as a priority weed for the western region of NSW.
- Mesquite (*Prosopis spp.*): listed as priority weed for the western region of NSW
- Velvet Mesquite (*Prosopis velutina*): listed as priority weed for the western region of NSW.

Refer to:

- Appendix E – Weeds Identified within Project Area

Weed hygiene objectives, management protocols and associated controls have been developed within the project to prevent the spread of weeds within the project. These include (but not limited to):

- Site point of site entry via shaker grid;
- Inspections with all mobile plant on mobilisation;
- Provision of wash down areas at project commencement;
- Weed and Seed Clearance Certificates to be sighted for each vehicle (inclusive of sub-contractors) prior to site entry;

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- Training of vehicle hygiene and weed management through the induction and ongoing at Toolbox meetings throughout the project duration;
- Documented information (Records);
- Assurance audits.

Prior to any site disturbance (inclusive of the project boundaries plus a 20 m buffer area) (preferably a few weeks in advance and again immediately prior to), an inspection of the project site must occur to confirm the presence of any weed species. Where present, a suitably qualified sub-contractor is to be engaged to appropriately remove the weed species with decision informed around:

- Species type;
- Species stage (emerging / flowering / seeding);
- Species location;
- Approved removal methodology.

Where a contact period is required for a herbicide control is required, this is to be clearly communicated to the Project Manager so that the control method can be effectively implemented.

All individuals have a duty to ensure the control measures are applied and understand how to identify and prevent the spread of weeds through hygiene protocols being applied. It is a requirement (Under the Biosecurity Act 2015 NSW) to prevent, eliminate or minimise a biosecurity risk so far as is reasonably practicable.

Activities that generate a risk of transferring or dispersing invasive weeds and seeds are vehicles that enter and exit the project area, which shall be controlled through applying the Consortiums biosecurity hygiene protocols.

Refer to:

- 4017-PLA-HS-002-Broken Hill BESS Project Construction Environmental Management Plan
- VAL-F-348 Vehicle and Mobile Plant Weed Hygiene

4.3.5 Terrestrial Fauna

Native, feral and other animals may enter the workplace during or after-hours, placing themselves and site personnel at risk of harm. The following controls will be implemented to minimise risks associated with fauna entry:

- Food scraps will be securely stored in lidded bins and regularly removed from site to deter fauna.
- Feeding and / or capture of native or feral animals will not be permitted (except by a specialist handler engaged to remove the animal).
- Notification of fauna sightings are to be reported to the Principal Contractor including any habitat(s) to identify if further controls are required (ie. Dusky Hopping Mouse sightings).
- Any fauna vehicle strikes are to be managed in accordance with the Fauna Handling Procedure (Appendix G).
- Any identification of fauna that is listed as a threatened species must be handled in accordance with the Unexpected Threatened Species Finds procedure (Appendix G).

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4.3.6 Erosion and Sediment Control

Disturbed land within the project construction zone have the potential for erosion and sediment runoff, particularly when large areas of land have been exposed, and this can lead to public nuisance, impeded drainage infrastructure and potential impacts to biodiversity ecosystems.

Erosion & Sediment controls shall be implemented as detailed in the Construction Environmental Management Plan (Section 4.2.3) and soil salvaged and stockpiled as per CEMP (Section 4.2.11) and includes at a minimum:

- Quantity of land disturbed at any one time will be kept to the minimum required by the works schedule, and various work schedules will be coordinated to minimise the time that disturbed land remains exposed.
- An erosion and sediment control process shall be approved by the principal and be applied with disturbed land.
- Allow stormwater to pass through the site in a controlled manner and at non-erosive flow velocities.
- All erosion and sediment controls to be inspected before and after significant wet weather events (defined to be greater than 20 mm received within a period of 24 hrs). The inspection to focus on suitability and serviceability of the controls. Additional controls will be installed or repairs made prior to or after wet weather events when required.
- Plant and vehicles will follow designated traffic ways within the traffic management plan to avoid disturbing stabilised cleared land.
- Long-term soil stockpiles will be located away from natural waterways and other sloped areas.
- Where topsoil stockpiles are to be in-situ long term (i.e. greater than 12 weeks) protection of the surface with grass seed and/or soil binder to be considered.
- Minimise negative impacts to land or properties adjacent to the activities (including roads).
- Regular inspections of sediment and erosion controls utilised on the project with any repair works completed immediately to ensure continued serviceability.

4.3.7 Reinstatement and Rehabilitation

All rehabilitation within the project site is managed through the Development Consent and EPC Contract obligations.

As per the setout of requirements shown in Appendix F: Biodiversity Division of Responsibility, the project site must be rehabilitated within 18 months. The project must complete rehabilitation to satisfactorily achieve the following objectives:

- Rehabilitating and revegetating disturbance areas with species that are endemic to the area (i.e. native seed and plantings are to be species from PCT 155); and
- Maximising the salvage of vegetative and soil resources within the approved disturbance area for beneficial reuse in the enhancement or the rehabilitation of the site – this will be achieved by:
 - disturbed areas to be backfilled (with excavated material from the trench);
 - rehabilitated immediately post-construction (as is reasonably practical) with plants endemic to the locality;
 - Any fill material required for the site must be clean fill.

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Stage 1 works of the construction of the BESS site will result in the majority of the site being a hard stand areas (concrete surface). However, all batters around the pad must be stabilised appropriately with the reuse of stripped topsoil and seeded to ensure a successful vegetation coverage to minimise any erosion of the batters. Excess topsoil shall be spread in low stockpiles or berms not exceeding 1 m depth adjacent to roadwork to encourage regrowth from seeds and organic matter in the topsoil. The disposal of topsoil shall not impact on the effectiveness of the drainage systems constructed on the site.

5 MONITORING AND IMPROVEMENT

5.1 PERFORMANCE REPORTING

Performance reporting against environmental objectives and indicators shall be conducted as detailed within this plan, evaluated for compliance and communicated within the Consortium consultation and reporting process.

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As per Table 6-1 Project Monitoring Requirements & Data Recording within the CEMP (4017-PLA-HS-001), the relevant sections of the BMP must be recorded and reported:

Table 5-1 Project Monitoring Requirements & Data Recording (subsection of Table 6-1 - from 4017-PLA-HS-001)

Section	Item	Frequency	Responsibility
Biodiversity	Weed Control – observation of emergence of any identified weed species and appropriate control measures undertaken to reduce potential of spread through construction activities	Weekly inspection	HSE Advisor
Water Use	Record of potable water usage.	Monthly	Construction Manager
Waste	Material tracking measures to track waste and recyclables generated from the Project and removed from the Project area. Material tracking records would include types, volumes and management measures for waste and resources arising from/used for the Project.	Monthly	HSE Advisor
Environmental Alertness	All employees and subcontractors are to complete environmental training prior to commencement of work through the induction process and continuation of training through morning pre-start and toolboxes. This is to be captured through attendance signoff sheets and record keeping to ensure 100% compliance.	Prestart / Monthly	HSE Advisor / Construction Manager
Environmental Inspections	Inspections are to be completed weekly and a focus on each CEMP chapter to be completed monthly. All corrective actions are to be captured on an action list (as per Section 6.2) will completion of identified actions within set timeframes.	Monthly	HSE Advisor / Project Manager
HSE Plan updates	Where corrective actions are identified to make changes to any of the HSE suite of plans (Section 6.5) – this must be completed within set timeframes and submitted to AGL for approval.	Monthly	HSE Advisor / Project Manager

5.2 AUDITS & INSPECTIONS

Conformance with the Construction Environmental Management Plan Assurance and Audit schedule shall be applied with assessment and evaluation activities against the project's Environmental performance outcomes.

Audits and inspections shall be conducted through the following formats:

- Daily / Weekly - the Consortium Construction Supervisor will conduct daily and weekly inspections using the Site Weekly Checklist (VAL-F-027)

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- Monthly - the Consortium HSE Advisor will conduct a HSE audit monthly, using the Hazard Inspection / HSE Audit form (VAL-F-022). The AGL HSE Representative will be invited to participate in monthly audits with all feedback and observations listed on the Hazard Inspection / Health and Safety Audit form.
- Subcontractors should expect to have a sample of their compliance requirements reviewed during each of the periodic audits.
- All non-compliances will be managed through the HSE Database and will be closed out within the time specified. All completed action items will be verified by the Project Manager (or delegate). In the event that the principal identifies a non-compliance with the Environmental Management Plan the non-compliance is to be rectified immediately.

Non-compliance or conformances with this plan shall be treated as a hazard, near-miss or incident, investigated and rectified within agreed timeframes within the Consortium and project.

5.3 INCIDENT REPORTING AND INVESTIGATION

Environmental incidents (including the classifications) will be managed in accordance with the Consortium Incident Reporting and Investigation procedure (VAL-PRO-054) against the AGL Incident Reporting Criteria and investigated to a depth proportionate with the actual and potential environment impacts of the event. All Environmental incidents will be reported to AGL as soon as possible to ensure regulatory reporting timeframes are met.

Table 5-2 provides the established reporting timeframes (as per Table 6-2 in the CEMP - 4017-PLA-HS-001).

Table 5-2 Incident Verbal and Initial Report Timeframes

Incident Type	Verbal Notification	Initial Incident Report
Near Miss (FIRM Low Risk Incident)	Immediately	Within 24 hours
Near Miss (FIRM Moderate Risk Incident)	Immediately	Within 24 hours
First Aid	Immediately	Within 4 hours
Medical Treatment Injury/Illness	Immediately	Within 2 hours
Lost Time Injury/Illness	Immediately	Within 2 hours
Environmental: causes or threatens material harm	Immediately	Within 2 hours
Environmental: does not cause or threaten material harm	Immediately	Within 24 hours
SIF	Immediately	Within 2 hours
SIF Potential	Immediately	Within 2 hours
High Potential (FIRM High Risk and Above Incident) and Regulatory Notifiable Incidents	Immediately	Within 2 hours

5.4 MANAGEMENT REVIEW

The Consortium Leadership will review the environmental program and its performance at planned intervals to ensure continued system effectiveness and alignment with policy and objectives. Various methods include:

- Environment will be a standing agenda item at all Senior Management Team (SMT) meetings. Items to be discussed include significant issues or improvements and any reported incidents and near-misses.

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- The HSE Lead will issue a HSE report to the SMT each month detailing HSE performance. Items will include current leading and lagging indicators; any incidents, near misses; any regulatory changes; and progress against HSE improvement plans.
- HSE management meetings will be held weekly and monthly to review the status of Consortium's HSE management system. Items to be discussed include Consortium's HSE objectives and performance, the current status of iMACS, and the planned HSE strategy for the next period.
- Additional review meetings will be held whenever a significant issue or trend is identified that requires SMT-wide action.

5.5 CHANGE MANAGEMENT

This BMP is to be treated as a continually evolving document that is subject to changes in:

- Project infrastructure (in terms of components and size);
- Methodology of construction;
- Changes to legislative requirements and any amendments to the Development Consent (SSD-11437498);
- Changes to the Biodiversity Assessment Report;
- Equipment and machinery usage (whether for fit for purpose or availability reasons); and/or
- Project personnel changes.

Where changes occur, the following steps to capture and document the changes must occur:

- Documentation and review of changes within the risk and impact assessment matrix, and where required development and implementation of control action;
- Update of any impacted plans (including but not limited to: erosion and sediment control plan, this BMP);
- Toolbox meeting to inform project personnel of changes, and the associated risk assessment and control actions to be implemented/observed;
- Where changes are significant (eg response to legislative changes, updated plans submitted to AGL for review and approval prior to implementation);
- Update to documents that are available for the public via the website , ensuring that the revision and date are updated to clearly identify the most up to date edition.

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APPENDIX A: INTERESTED PARTY ANALYSIS

Interested Parties	Requirements /Expectations	HSEQ MS Processes
Community	<ul style="list-style-type: none"> - Noise /Dust - Traffic - Local content - Charities 	<ul style="list-style-type: none"> - Environmental policies - Traffic management plans - Sustainability programs - Consortium charitable work
Consortium	<ul style="list-style-type: none"> - Provision of quality service - "Product" delivered on schedule & budget - Safe /operational product being delivered - Clear documentation detailing processes - Clear understanding of contractual requirements - Client specifications being met 	<ul style="list-style-type: none"> - HSEQ certification, policy and processes - Project Execution plans - Compliance with client specifications / technical procedures and verifying documents/document control process - HSEQ Management Plans - Contract process, contract/tender reviews/ Internal kick off meetings - Technical procedures and verifying documents/ internal audits - Risk workshops
Employees	<ul style="list-style-type: none"> - Payment for work - Performance feedback - Safe work environment - Training - Access to information - Clear instruction 	<ul style="list-style-type: none"> - Payroll/DCR - Employee evaluations - HSEQ Processes - In-house/External training programs / VOC - Consortium Intranet/ iMACS - On boarding
Government/Regulators	<ul style="list-style-type: none"> - Compliance with legislation - Environmental legal requirements 	<ul style="list-style-type: none"> - EIS, Development Consent EPC Contract Lawstream - Environmental policies & procedures - Environmental Monitoring
Management	<ul style="list-style-type: none"> - Clear instruction on company direction - Access to information - Management of client requirements/expectations - Suitable information for planning and execution - Assessment of progress 	<ul style="list-style-type: none"> - Management meetings and feedback - Consortium Intranet/ iMACS - Progress meetings / Weekly / monthly reports - Reporting programs to clients, business and board
Share Holders	<ul style="list-style-type: none"> - Financial return - Company growth - Risk reduction 	<ul style="list-style-type: none"> - Financial processes - Quality controlled product - Marketing/Sales/Promotion
Suppliers	<ul style="list-style-type: none"> - Clear understanding of contractual requirements - Clear understanding of product required - Applicable documentation - Specifications being met 	<ul style="list-style-type: none"> - Subcontractor management process/ Kick off meetings - Detailed purchase orders - Supplier deliverables/ document control process - External audit by Consortium - Monitoring of supplier processes - Technical procedures and verifying documents

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APPENDIX C: VEGETATION ZONES – PCT 155 BLUEBUSH SHRUBLAND



Vegetation zones and plot locations
Broken Hill Battery Storage BDAR

Figure 3

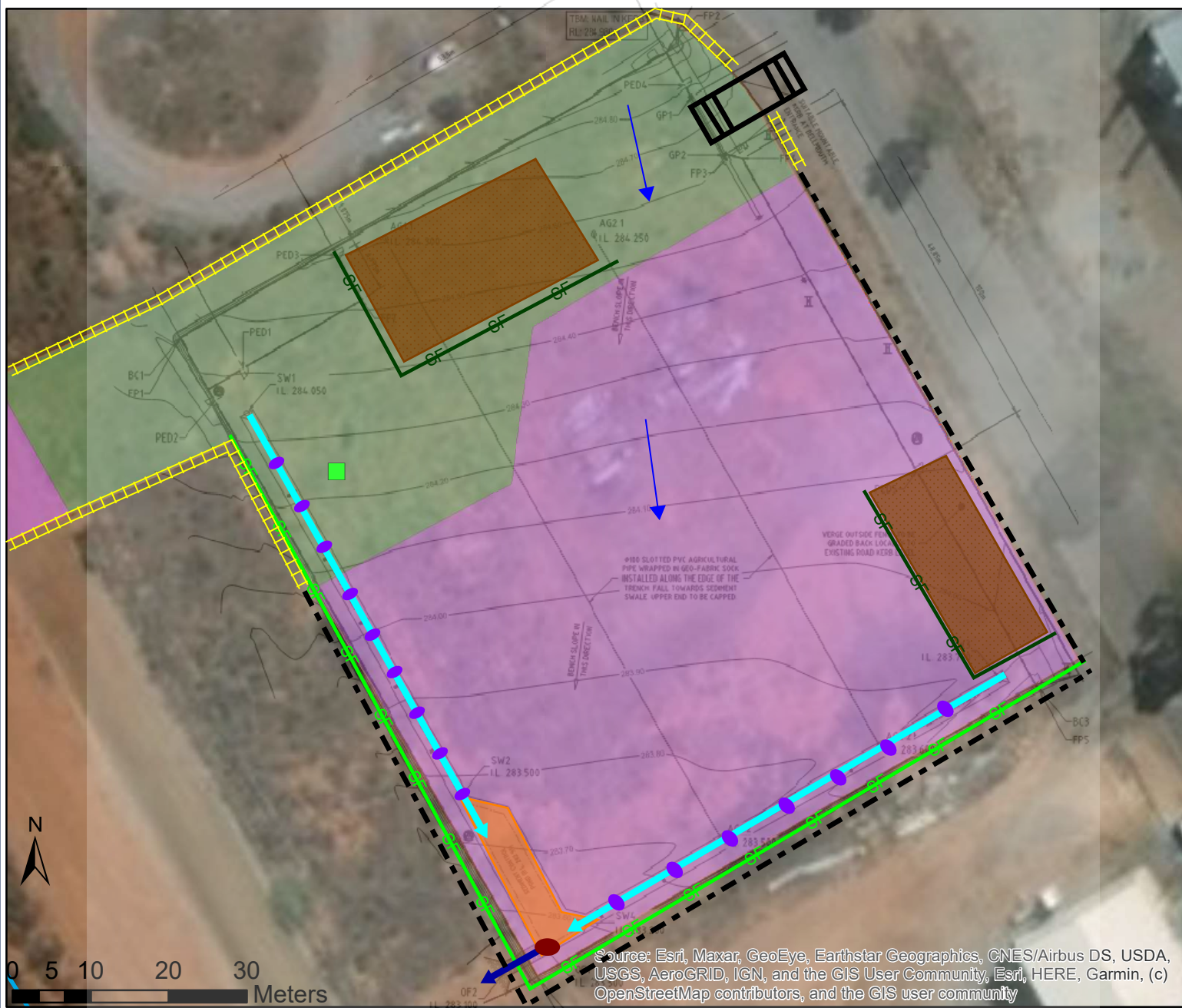
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APPENDIX D: EXCLUSION ZONE – STAGE 1

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LEGEND

- Highly degraded / cleared (No PCT)
- Bluebush Shrubland - Low Condition
- STOCKPILE LOCATION²
- SECURITY FENCE
- SEDIMENT FENCE
- (Refer to PSD1742-33A-050-01)
- SHAKER GRID
- SEDIMENT CONTROL SWALE (BY OTHERS)¹
- CULVERT (BY OTHERS)
- ROCK RIFFLE (spacing to be every 10m - see typical swale drain section)
- ROCK FILTER
- EXCLUSION ZONE
- HIGH THREAT WEED



Notes:
 1. Refer to PSD1742-33A-050-01
 2. Stockpile location may be moved to suit current construction phase on the basis of:
 - not to be located within sediment control swale or sediment control pond and
 - is bunded on the downstream side (as shown) with sediment fencing to avoid any transportation of sediment into the sediment control swale.

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

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APPENDIX E: WEEDS IDENTIFIED WITHIN PROJECT AREA

Weed Images	Type	Listed As	Controls
	<p>African Boxthorn (<i>Lycium ferocissimum</i>)</p>	<ul style="list-style-type: none"> • Prohibited and Category 3 restricted invasive plant • Manageable High Threat Weed • Priority weed for the western region of NSW. 	<p>Effectively managed with specific management practices (correct identification, hygiene protocols, clearing, cultivation, biological controls and herbicides for re-growth).</p>
	<p>Mesquite (<i>Prosopis spp.</i>): listed as priority weed for the western region of NSW</p>	<ul style="list-style-type: none"> • Prohibited and Category 3 restricted invasive plant • Priority weed for the western region of NSW. 	

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Velvet Mesquite (*Prosopis velutina*): listed as priority weed for the western region of NSW.

- Prohibited and Category 3 restricted invasive plant
- Priority weed for the western region of NSW.

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APPENDIX F: BIODIVERSITY DIVISION OF RESPONSIBILITY

Entity	Responsibility
Principal	Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset, the Applicant must retire biodiversity credits of a number and class as specified within this plan and as per Schedule 3 of the Project Approval of the EPC Contract.
Principal	Prior to carrying out any development, the Applicant must develop and implement a Remedial Action Plan prepared in accordance with the relevant guidelines produced or approved under the Contaminated Lands Management Act 1997 as per Schedule 3 of the Project Approval of the EPC Contract.
Principal	Within 18 months of the cessation of operations, unless the Planning Secretary agrees otherwise, the Applicant must rehabilitate the site to the satisfaction of the Planning Secretary and associated objectives as per Schedule 3 of the Project Approval of the EPC Contract.
Principal Contractor	Prior to commencing construction, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Planning Secretary as per schedule 4 of the Project Approval of the EPC Contract.
Principal Principal Contractor	With the approval of the Planning Secretary, the Applicant may submit any strategy, plan or program required by this consent on a progressive basis. The Contractor is responsible for the development and preparation of the plans and programs as per schedule 4 of the Project Approval of the EPC Contract.
Principal Principal Contractor	Prior to commencing the construction, operations, upgrading or decommissioning of the development or the cessation of operations, the Applicant must notify the Department in writing via the Major Projects website portal of the date of commencement, or cessation, of the relevant phase. The Contractor must inform the Principal with sufficient notice to allow it to comply with this condition, as per schedule 4 of the Project Approval of the EPC Contract.

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APPENDIX G: PROCEDURES

HSEQ POLICY

VALMEC is an Australian energy services group providing specialised packaged equipment, construction, maintenance, and commissioning and integrity maintenance services to the oil and gas, resources, energy and infrastructure sectors.

Through effective leadership, we will continuously strive to be the industry leaders in Health, Safety, Environment and Quality management and performance.

Our success requires shared dedication and active participation by each of us, and a commitment to our Valmec Core Values:

- ✔ **SAFETY** > We will not compromise
- ✔ **INTEGRITY** > We do what is right
- ✔ **COLLABORATION** > We work better together
- ✔ **ACCOUNTABILITY** > We deliver on our promises
- ✔ **RESPECT** > We value diversity, community & the environment

Valmec is committed to:

- Meeting our client's requirements and striving to exceed service delivery expectations.
- Providing a safe and healthy workplace where employees are supported and are not exposed to harm.
- Preventing pollution and minimising environmental impacts.
- Continual improvement of our people, systems and operational performance.

We will achieve our commitments by:

- Understanding our clients' needs and communicating requirements throughout Valmec.
- Complying with legislation, standard, codes of practice and other applicable requirements.
- Living and working by the standards defined by our Code of Conduct.
- Identifying and managing risk through a systematic risk management framework.
- Providing certified management systems and operating within these.
- Developing achieving measurable and challenging objectives and targets at all levels.
- Delivering quality projects safely, on schedule, and on budget.
- Developing and maintaining personnel competencies to meet current and future needs through training and coaching.
- Leveraging the skills and knowledge of the entire workforce through consultation and delegated authority.
- Assessing and understanding our performance through structured review.
- Empowering our people to make decision to create a safe workplace and authorising them to stop work to make a situation safe when needed.



Steve Dropulich
Managing Director
31st July 2019





SAFETY > We will not compromise



INTEGRITY > We do what is right



COLLABORATION > We work better together



ACCOUNTABILITY > We deliver on our promises



RESPECT > We value diversity, community & the environment

TO BE COMPLETED PRIOR TO MOBILISATION

Plant ID:	Reg:	Machine Type:
Make & Model:	Job Number:	Owner:
Inspected By:	Date	Hour Meter/Odometer:

✓ Passed. X Work required. NA= Not applicable

The following areas have been inspected & are free from dirt & vegetation at the time of inspection:	Inspection result	Comments
Internal areas (cabin)		
External areas (panels, trays etc.)		
Radiators and filters		
Air Cleaner / Pre Cleaner		
Sump / engine guard		
Buckets / blades / tines etc.		
Running gear / bash plates		
Tyres / wheels / wheel arch / tracks		
Undercarriage / other		

Subject to Project/ client requirements

Vehicle/Plant wash down (Plant Exiting and area declared Weed hygiene contamination risk. Should be reinspected prior to departure, cleaning should be undertaken if required.)	Required	Comments
Vehicle/Plant wash down completed		

Inspection Completed by

Name: _____
 Signature: _____
 Date: _____

Site Valmec Acceptance Sign-off

Name: _____
 Signature: _____
 Date: _____

Form to completed and emailed to workshopteam@valmec.com.au a hard copy should also accompany the Machine

This form must be completed for all vehicles and mobile plant entering Valmec Projects, where plant will be operated on site and for all vehicles and mobile plant exiting weed risk areas.

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UNEXPECTED THREATENED SPECIES FINDS PROCEDURE

The Consortium Project Manager will retain the overall responsibility for implementing the unexpected threatened species finds procedure for all construction works undertaken within, or near, the project area.

1.1 MANAGEMENT OF UNEXPECTED THREATENED SPECIES FINDS

The purpose of this procedure is to detail the actions to be taken in the event that an unexpected actual or potential threatened species or endangered ecological communities is encountered during project works.

This procedure is applicable for the following:

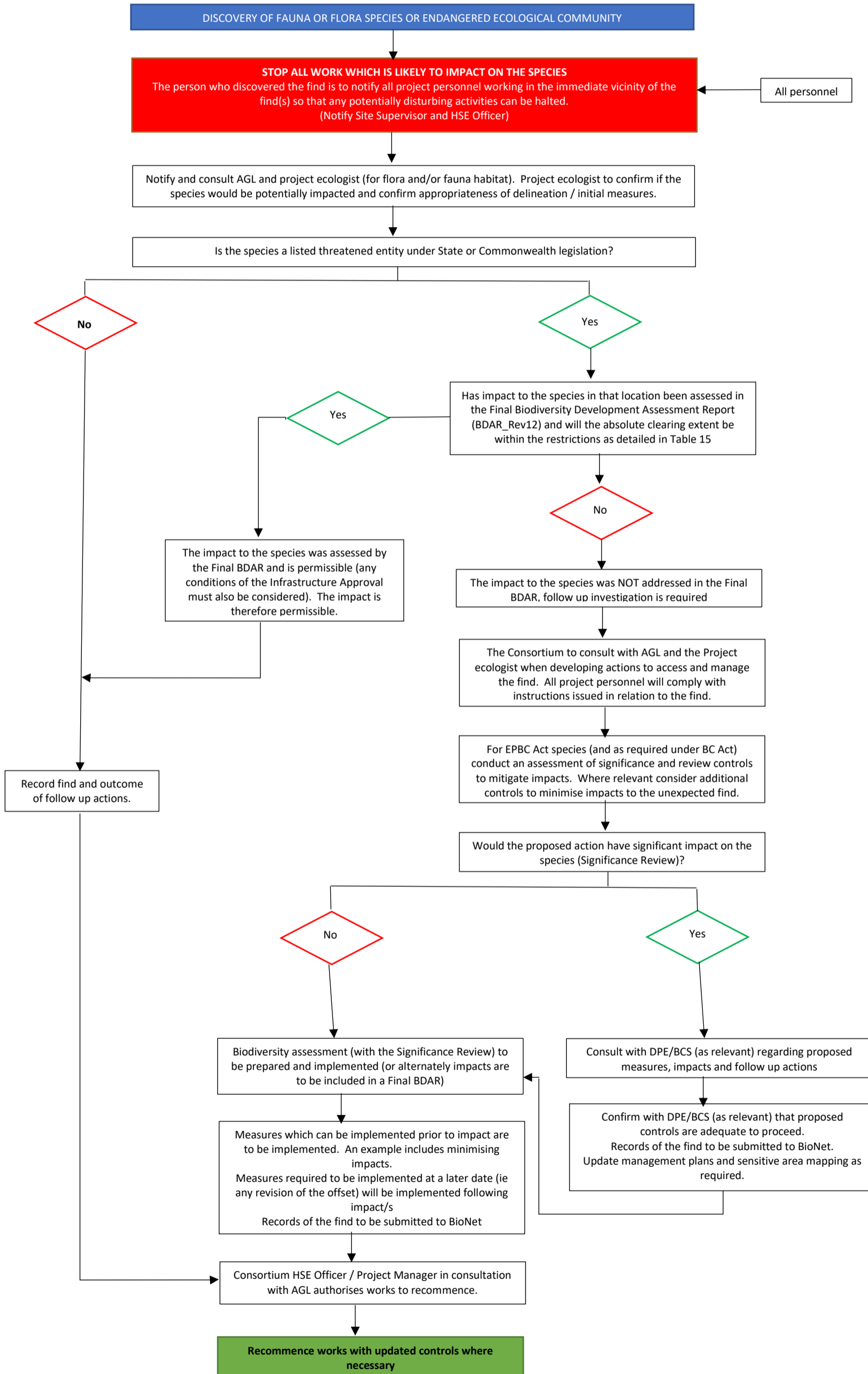
- all activities conducted by site personnel (including sub-contractors) that have the potential to encounter unexpected threatened species finds (usually during pre-clearing inspections and construction);
- where the project does not have approval to impact the threatened species; and
- where mitigation measures for managing the disturbance (apart from this procedure) are not contained in the environmental impact assessment.

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1.2 UNEXPECTED FINDS PROCEDURE

In the event that a person on-site identifies an unexpected find, the Consortium will undertake the actions presented in Figure 1.1 below.



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2.0 ENVIRONMENTAL CONTROL MEASURES AND COMPLIANCE

2.1 ROLES AND RESPONSIBILITIES

In addition to those detailed in the EMS & CEMP, the roles and responsibilities presented in Table 5.1 are relevant to the Unexpected Finds Procedure.

Table 2.1 Roles and Responsibilities

Role	Responsibility
HSE Officer	Provide training at commencement of project of potential of Unexpected Finds and the requirements under this procedure.
Site Supervisor	Communicate discovery and nature of unexpected finds to contamination consultant.
Project Manager	Stop Works, ensure area is isolated and Unexpected Finds Procedure is implemented.

2.2 TRAINING

All site personnel (including subcontractors) will undertake an induction which will include details relating to this procedure. Training may also occur through toolbox talks, pre-starts and targeted training as required.

2.3 MONITORING AND INSPECTION

Monitoring and inspection will be conducted in accordance with sections 7.1 and 7.3 of the Broken Hill Battery Energy Storage System Project EMS. Results and actions of monitoring and inspection are to be recorded as specified within the CEMP.

2.4 AUDITING

Internal and external audit requirements will be conducted as outlined within section 7.3 of the Broken Hill Battery Energy Storage System Project EMS.

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FAUNA RESCUE PROCEDURE

1.0 INTRODUCTION

This procedure is applicable to the handling of any fauna encountered during construction if required. Handling of fauna may be necessary when they are encountered and need to be relocated or if injured, taken to a vet or wildlife carer. Fauna handling should be undertaken either by the project ecologist or a person skilled in handling the species of fauna encountered.

Should any threatened species be identified, the Unexpected Threatened Species Find Procedure would be implemented.

2.0 SCOPE

This procedure is applicable for the following:

- all activities conducted by site personnel (including subcontractors) that have the potential to encounter fauna; and
- vegetation clearing and land disturbance.

3.0 GENERAL FAUNA HANDLING REQUIREMENTS

Fauna may be encountered in a variety of situations during delivery of the project.

During clearing activities, any fauna handling will be carried out by the project ecologist or a trained fauna handler.

During other construction activities (when the project ecologist or fauna handler may not be present on site), fauna may require monitoring by other project personnel until such time that suitably qualified personnel can attend.

If fauna is handled or moved during clearing activities, this will be recorded in clearing reports. A Fauna Handling Record Sheet will not be required to be completed during these activities. During other times of project delivery, if fauna is handled or moved, the Fauna Handling Record Sheet is to be completed.

If fauna is struck by a vehicle this is recorded by the Environment team in the Fauna Strike Register.

3.1 FAUNA STRIKE DURING TRAVEL

Due to the linear nature of the project, there will be a range of different roads and access tracks in which project personnel or subcontractors are likely to encounter fauna within and to and from worksites, ancillary areas and camps. The likelihood of encountering fauna during dawn and dusk is increased.

If during travel to and from the project on nominated project road or access tracks, project personnel or subcontractors accidentally strike fauna, the following is to occur:

- where safe to do so, direct the vehicle to a slow stop in a safe location with clear visibility to other oncoming vehicles;
- if the animal is deceased, where safe to do so, and if physically possible, move the animal off to the side of the road as far away from the road edge as practical. This will prevent any further fauna strike to other animals feeding on the carcass. If it is not physically possible to move the

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animal (due to size, nature of impact or safety concerns), leave it in place, note the location of and report the event to the Supervisor on return to the work site. The Supervisor is to report the strike to the Environment team who will record the event in the Fauna Strike Register;

- if the animal is alive, and escapes into adjacent habitat, note the location of the impact and the report the strike to the HSE team;
- if the animal is alive but injured, first aid should be provided and the Environment team should be contacted. The animal should be taken to a Veterinarian for further assessment and treatment;
- if the animal is alive but too dangerous to assist (e.g., a raptor such as a Wedge-tailed Eagle), note the location and report the event to the Supervisor on return to the work site or camp. The supervisor is to report the strike to the HSE Team; and
- if the animal is deceased but has an orphan in the pouch, contact the Environment team who will seek advice from the project ecologist regarding the best way to remove, store and transport the orphaned fauna. If the joey's mouth is attached to the teat, do not try to detach them, but instead, if possible, take the deceased mother, or cut off the teat. Where possible and safe to do so, recover the animal, keep warm in blanket or towel and transport in an aerated box to the work site or camp. Personnel to report immediately to the supervisor who will report the strike to the HSE team who will complete the Fauna Handling Record Sheet and manage the animal in accordance with advice from the project ecologist.

3.2 FAUNA ENTRAPMENT WITHIN TRENCHES

- Prior to commencement of works, where trenches have remained opened overnight, they should be inspected for the presence of wildlife;
- Where wildlife is spotted, contact suitably qualified personnel to inspect and clear work area, and completed necessary registers (Fauna Handling Record Sheet);
- At the end of the days, prior to completion of work, a decision should be made whether a trench can be partially or completely backfilled, and
- if backfilling of a trench is not practicable, fencing established around the open trench to mitigate larger species from entering the trench and fauna escape ramps established at the ends to enable smaller species to escape.

4.0 ROLES AND RESPONSIBILITIES

In addition to those detailed in the EMS & CEMP, the roles and responsibilities presented in Table 5.1 are relevant to the Unexpected Finds Procedure.

Table 2.1 Roles and Responsibilities

Role	Responsibility
HSE Officer	Provide training at commencement of project of potential of Fauna Impact and the requirements under this procedure.

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Foreman	Communicate discovery and nature of unexpected finds to contamination consultant.
Project Manager	Stop Works, ensure area is isolated and Unexpected Finds Procedure is implemented.

2.2 TRAINING

All site personnel (including subcontractors) will undertake an induction which will include details relating to this procedure. Training may also occur through toolbox talks, pre-starts and targeted training as required.

Training will include the need for fauna handlers to be appropriately licensed or approved under relevant legislation. This includes the need for:

- those handling reptiles to have a Biodiversity Conservation Licence under the Biodiversity Conservation Act 2016; and
- any injured native fauna to be taken to a vet or to a licensed wildlife rehabilitation provider. The wildlife rehabilitation provider must hold a Biodiversity Conservation Licence (Wildlife Rehabilitation Licence) under the Biodiversity Conservation Act 2016.

2.3 MONITORING AND INSPECTION

Monitoring and inspection will be conducted in accordance with sections 7.1 and 7.3 of the Broken Hill Battery Energy Storage System Project EMS. Results and actions of monitoring and inspection are to be recorded as specified within the CEMP.

2.4 AUDITING

Internal and external audit requirements will be conducted as outlined within section 7.3 of the Broken Hill Battery Energy Storage System Project EMS.