Iron-grass Natural Temperate Grassland Offset Management Plan – Stage 1 and Stage 2: [redacted]

Goyder North Wind Farm (EPBC 2024/09929)

Final

January 2026

[redacted]

umwelt

Iron-grass Natural Temperate Grassland Offset Management Plan – Stage 1 and Stage 2: [redacted]

Goyder North Wind Farm (EPBC 2024/09929)

Final

Prepared by
Umwelt (Australia) Pty Limited

On behalf of
Neoen Australia Pty Ltd
ABN: 57 160 905 706

Project Director: Alison Derry
Project Manager: Jessica Skewes
Technical Manager: Emma Tremain
Report No.: 32954/R01
Date: January 2026

112 Hayward Avenue, Torrensville 5031

This report was prepared using
Umwelt's ISO 9001 certified
Quality Management System.

Acknowledgement of Country

Disclaimer

This document has been prepared for the sole use of the authorised recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by Umwelt (Australia) Pty Ltd (Umwelt). No other party should rely on this document without the prior written consent of Umwelt.

Umwelt undertakes no duty, nor accepts any responsibility, to any third party who may rely upon or use this document. Umwelt assumes no liability to a third party for any inaccuracies in or omissions to that information. Where this document indicates that information has been provided by third parties, Umwelt has made no independent verification of this information except as expressly stated.

Document Status

Rev No.	Reviewer Name	Date	Approved for Issue Name	Date
V0.1	Emma Tremain	03/12/2025	NA (internal)	
V0.2	Marina Louter	05/12/2025	NA (internal)	
V1.0	Jessica Skewes	05/12/2025	Alison Derry	11/12/2025
V2.0	Jessica Skewes	10/01/2026	Alison Derry	13/01/2026

Declarations

Declaration of Accuracy

In making this declaration, I am aware that section 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth; Cth) (EPBC Act) makes it an offence in certain circumstances to knowingly provide false or misleading information or documents to specified persons who are known to be performing a duty or carrying out a function under the EPBC Act or the *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth). The offence is punishable on conviction by imprisonment or a fine, or both.

I am authorised to bind the approval holder, Neoen Australia Pty Ltd, ABN: 57 160 905 706, to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed	[redacted]
Full name	Jackson Taylor
Organisation	Neoen Australia Pty Ltd, ABN: 57 160 905 706
Role	Project Manager – South Australia
Date	12/01/2026

Proponent and/or approval holder Conflict of Interest Declaration

I declare that to the best of my knowledge I do not have any actual, potential or perceived conflicts of interest that may affect the assessment of this Offset Management plan, except as set out below.

I undertake to make a further declaration detailing any actual, potential or perceived conflict of interest that may arise during the assessment period.

I agree to comply with any mitigation steps required to address any declared conflict.

Signed	[redacted]
Full name	Jackson Taylor
Date	12/01/2026

Consultant Conflict of Interest Declaration

I declare that to the best of my knowledge I do not have any actual, potential or perceived conflicts of interest that may affect the assessment of this Offset Management Plan, except as set out below.

I undertake to make a further declaration detailing any actual, potential or perceived conflict of interest that may arise during the assessment period.

I agree to comply with any mitigation steps required to address any declared conflict.

Signed	[redacted]
Full name	Jessica Skewes
Date	12/01/2026

Landowner Declaration

I/we declare that to the best of my knowledge I do not have any actual, potential or perceived conflicts of interest that may affect the assessment of this Offset Management Plan, except as set out below.

I/we undertake to make a further declaration detailing any actual, potential or perceived conflict of interest that may arise during the assessment period.

I/we agree to comply with any mitigation steps required to address any declared conflict.

I/we

- agree to the offset being undertaken over my/our land as identified in **Section 4.1**, of this Offset Management Plan
- request the approval of this Offset Management Plan under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- consent to the collection and use of the personal information in this document for the purposes of assessing this Offset Management Plan made under the EPBC Act
- solemnly and sincerely declare that the information provided is true and correct to the best of my/our knowledge and I/we make this solemn declaration conscientiously believing the same to be true
- understand that all information supplied on or with this application form may be disclosed publicly in accordance with the *Freedom of Information Act 1982* and *Evidence Act 1995*.

I/we declare that any non-compliance with the requirements of this Offset Management Plan shall constitute a breach of the terms and conditions of the legally binding mechanism entered into and I/we will take all necessary steps as may be required to accomplish my/our obligations contained in this Offset Management Plan.

Signed	
Full name (please print)	
Date	

Signed	
Full name (please print)	
Date	

Executive Summary

This [redacted] Iron-grass Natural Temperate Grassland Offset Management Plan ([redacted] INTG OMP, this Plan) has been prepared to guide the establishment, implementation, and management of an on-ground environmental offset required for the Goyder North Wind Farm Project (GNWF), specifically to address residual significant impacts on Matters of National Environmental Significance (MNES) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The primary focus of this OMP is the conservation and protection of the Critically Endangered Threatened Ecological Community (TEC), Iron-grass Natural Temperate Grassland of South Australia (INTG).

The GNWF is a large-scale renewable energy project located in the Mid-North region of South Australia, comprising up to 99 wind turbine generators, battery energy storage systems, substations, and associated infrastructure. The Project will result in both permanent and temporary disturbance to native vegetation and fauna habitat, with a total disturbance footprint of up to 536.82 ha, including INTG TEC. Despite extensive efforts to avoid and minimize impacts through project design and mitigation measures, a residual significant impact remains, including the direct loss of up to 6.14 ha of Class B INTG TEC, as well as significant areas of potential habitat for Endangered Pygmy Blue-tongue Lizard (PBTL).

To address this residual impact to the INTG TEC, Neoen is implementing a comprehensive package of EPBC offsets designed to both offset and outweigh the impacts to the TEC. The overarching offset strategy balances risk across two properties and options, each providing unique benefits and management approaches. The offsets will be implemented in a two-staged approach (Stage 1 and Stage 2), aligned with the project's construction phases, detailed in **Section 2.4**. This Plan is related specifically to the [redacted] INTG Offset Area, which fulfils the Stage 1 and Stage 2 offset requirements for INTG TEC and forms a portion of the broader [redacted] Offset Site.

Primary stakeholders in the direct (on ground) offset process include Neoen (the Project proponent), the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW), the South Australian Department for Environment and Water (DEW), involved landholders/current landowners, the Third-party Accredited Provider and/or selected Offset Area Land Manager. Additional involved stakeholders include the Northern and Yorke Landscape Board (NYLB) and Murraylands and Riverland Landscape Board (MRLB).

This Plan is informed by and aligned with a range of statutory and policy documents, including the EPBC Act Environmental Offsets Policy, the INTG Recovery Plan, and relevant state and federal legislation and guidelines (**Section 2.6**). Dependencies include the outcome of the EPBC Referral, timely securement of offset properties, engagement of accredited land managers and ongoing consultation with regulatory authorities and scientific experts.

The [redacted] Offset Site and INTG Offset Area management actions are designed to achieve formal protection, enhancement, and long-term viability of INTG TEC. The site was selected due to its proximity and connection to the broader mapped area of INTG which extends into the GNWF Project (the Impact Area), as well as the suitability of the habitat, with opportunity for further improvement.

The expected outcomes for the INTG Offset are:

- Formal protection of the INTG Offset Area for the duration of the action (construction and operation of GNWF). However, protection is likely to be in perpetuity as the INTG Offset Area will be protected via a Heritage Agreement (as outlined in **Section 5.2.2**).
- Management of the INTG TEC Offset Area in accordance with the [redacted] INTG Offset Management Plan (OMP) (this Plan) for the duration of the action (i.e. the life of the GNWF Project) to maintain and increase (where possible) the condition/quality of the INTG Offset Area.

Maintenance and an increase in the condition/quality of the INTG Offset Area will involve maintenance and an increase (where possible) in the following (which are used to determine condition class for INTG TEC, in accordance with EPBC Act Policy Statement 3.7):

- diversity of native species
- number of broad-leaved herbaceous species in addition to identified disturbance resistant species
- number of native perennial grass species (excluding *Lomandra* species)
- perennial native grass tussock density.

However, in addition to the above, maintenance and an increase (where possible) in the condition/quality of the INTG Offset Area will also involve a decrease in the diversity and coverage of weeds.

The expected outcomes outlined above directly align with and will contribute to the following specific objectives of the INTG TEC Recovery Plan:

1. to maintain or improve the condition of remnant INTG and
2. to increase the area of INTG secured and managed for conservation.

Key management actions (**Section 5.0**) include legal securement of the Offset Area, adaptive grassland and grazing management, weed and pest control, fire prevention, and a robust monitoring and reporting program which will be used to inform ongoing adaptive management of the [redacted] Offset Site.

This Plan demonstrates consistency with the EPBC Act Environmental Offsets Policy by ensuring that offsets are proportionate, additional, scientifically robust, and subject to transparent governance and adaptive management (**Section 4.4**). Where relevant, the Plan will be updated to reflect final conditions of approval once issued by the Minister.

Specific objectives of this INTG Offset Management Plan are to:

- Provide general information on the ecology of INTG and factors to consider, including known and/or potential threats to the TEC, when establishing, implementing and managing the [redacted] INTG Offset Area (**Section 3.0**).
- Outline the residual impacts of the GNWF on INTG that require environmental offsets (**Section 3.3.3**).
- Outline the type of offset being implemented (**Sections 2.4** and **4.1.5**).
- Describe the [redacted] Offset Site and INTG Offset Area characteristics (**Section 4.0**)

- Outline the calculation of the required INTG Offset and provide the completed Offsets Assessment Guide (OAG) for the INTG Offset, including discussion/justification for the figures used to complete the offset calculation (**Section 4.2.1**).
- Outline important details of the INTG Offset, including the method of securing and managing the INTG Offset (**Section 5.1** and **5.2**).
- Outline the conservation gain to be achieved by the INTG Offset, including positive management strategies that improve the sites and/or avert the future loss or degradation of INTG (**Sections 4.2.1** and **5.3**).
- Demonstrate how the offset is consistent with the EPBC Act Environmental Offsets Policy (**Section 4.4**).
- Outline the management objectives, management aspects and associated actions (**Section 5.3**) and implementation responsibilities (**Section 5**).
- Detail a monitoring program to assess the success of the management actions and objectives as well as reporting, corrective actions, adaptive management and the review and update schedule associated with this [redacted] INTG OMP (**Section 6.0**).
- Outline the risks associated with securement and implementation of this Plan, and how risks are managed (**Section 7.0**).

Abbreviations

Abbreviation	Description
BAM	Bushland Assessment Methodology
BDBSA	Biological Databases of South Australia
BESS	Battery Energy Storage System
CEMP	Construction Environmental Management Plan
CFS	Country Fire Service
Cth	Commonwealth
DAWE	Department of Agriculture, Water, and the Environment (Australian Government; now DCCEEW).
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Commonwealth)
DE	Development Envelope
DEW	Department of Environment and Water (South Australia)
DF	Disturbance Footprint
DotE	Department of the Environment (Australian Government; now DCCEEW)
DotEE	Department of the Environment and Energy (Australian Government; now DCCEEW)
DRS	Disturbance Resistant Species
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (Australian Government; now DCCEEW)
EBS	Environment and Biodiversity Services Pty Ltd – trading as EBS Ecology (now Umwelt)
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
GNWF Project	Goyder North Wind Farm Project (includes WF and OTL), the Project (also, the action or the impact site)
GNREF	Goyder North Renewable Energy Facility
GRO	General Registry Office
GRZ	Goyder Renewables Zone
GSHREP	Goyder South Hybrid Renewable Energy Project
HA	Heritage Agreement
ha	Hectare(s)
INTG	Iron-grass Natural Temperate Grassland of South Australia Threatened Ecological Community
km	Kilometre(s)
kV	Kilovolt(s)
LSA Act	*Landscape South Australia Act 2019* (South Australia)
m	Metre(s)
mm	Millimetre (s)
MNES	Matter(s) of National Environmental Significance
MRLB	Murraylands and Riverland Landscape Board
MW	Megawatts
MWh	Megawatt hour
Neoen	Neoen Australia Pty Ltd
NPW Act	*National Parks and Wildlife Act 1972* (South Australia)
NYLB	Northern and Yorke Landscape Board
NV Act	*Native Vegetation Act 1991* (South Australia)
NVB	Native Vegetation Branch

Abbreviation	Description
NVC	Native Vegetation Council
OAG	Offsets Assessment Guide (DCCEEW)
OEMP	Operational Environmental Management Plan
OTL	Overhead Transmission Line
PBGW	Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia Threatened Ecological Community
PBTL	Pygmy Blue-tongue Lizard (*Tiliqua adelaidensis*)
PCQM	Point-centered Quarter Method
PDI Act	*Planning Development and Infrastructure Act 2016* (South Australia)
Pers. comm.	Personal communication
PIRSA	Department of Primary Industries and Regions South Australia
PMST	Protected Matters Search Tool
ROL	Risk of Loss
SA	South Australia(n)
SEB	Significant Environmental Benefit
sp.	Species (singular)
spp.	Species (plural)
SPRAT	Species Profile and Threats
ssp.	Subspecies
TEC	Threatened Ecological Community
VA(s)	Vegetation Association(s)
WF	Boundary around the wind farm infrastructure components in GNWF
WTG(s)	Wind Turbine Generator(s)
<	Less than
>	More than
≤	Less than or equal to
≥	More than or equal to
%	Percent / percentage

Glossary

Terminology	Definition
Accredited Third-party Provider	An organisation, business, landscape board or similar, which is accredited in South Australia by the Native Vegetation Council under Section 25C of the *Native Vegetation Act 1991* and works with landholders and native vegetation clearance applicants to help deliver Significant Environmental Benefit (SEB) offsets (including establishment and ongoing management).
Action	The Action includes both construction and operation of the proposed Project, and any change from existing activities which are required to undertake these tasks safely and effectively.
Declared weed	A plant that is regulated under the *Landscape South Australia Act 2019* due to its threat to primary industry, the natural environment and public safety.
Department	The Australian Government agency responsible for administering the EPBC Act
Development Envelope (DE)	A 'buffered' version of the Disturbance Footprint that represents the outer spatial extents within which the Disturbance Footprint will occur. Design is well developed and optimised to minimise cut and fill, avoid known areas of significance or value, and to minimise the Disturbance Footprint. The Development Envelope is an extra measure to enable final adjustments to the Disturbance Footprint in alignment with the Mitigation Hierarchy to avoid or minimise impacts on environmental values, cultural heritage or any other potential constraints that emerge during design finalisation and construction.
Disturbance Footprint (DF)	The area in which all Project infrastructure is constructed and operated.
Met mast	Meteorological mast (mast or tower equipped with instruments to measure windspeed and climatic conditions).
Micro-siting	Slight shift or adjustment to the infrastructure design during construction to avoid or minimise impacts to MNES. Micro-siting only to occur if it reduces the impact on MNES.
Minister	The Australian Government Minister administering the EPBC Act including any delegate thereof.
Operation	All activities that occur after the components of the final WTG are installed and the usage of the transmission line and substation for the purposes of transforming and/or redistributing electric current.
Offset Area	The property known as [redacted] which is the EPBC Offset Area for GNWF, and is the subject of this Iron-grass Natural Temperate Grassland Offset Management Plan.
Operation	All activities that occur after the components of the final wind turbine generator are installed and the usage of the transmission line and substation for the purposes of transforming and/or redistributing electric current.
Project	The Goyder North Wind Farm (GNWF) Project, inclusive of Wind Turbine Generators (WTG), overhead power transmission lines, expansion of existing Bundey substation, on-site battery energy storage system (BESS), access tracks and temporary facilities and infrastructure to enable construction. The Project is part of the larger Goyder North Renewable Energy Facility which includes a future stage of development which is not yet defined.
Project Area	The spatial bounds within which the disturbance footprint for the GNWF Project may occur, encompassing all Project components within the GNWF Project including WF and OTL.
Project components	Includes boundaries of GNREF, GNWF, Development Envelope, Disturbance Footprint.
Project elements	Distinct functional elements of the GNWF Project include WF, OTL and Site Access.
[redacted] INTG Offset Area/PBTL Offset Area	An area within the broader [redacted] Offset Site which contains INTG habitat and is the subject of this [redacted] INTG OMP.
[redacted] INTG OMP	The [redacted] Iron-grass Natural Temperate Grassland of South Australia Offset Management Plan, this Plan.
[redacted] Offset Site	The property known as [redacted] which is the EPBC Offset Site for the GNWF Project and is the subject this [redacted] INTG OMP. The property which has been purchased by Neoen and includes offsets for two Matters of National Environmental Significance, including Pygmy Blue-tongue Lizard and Iron-grass

Terminology	Definition
	Natural Temperate Grassland of South Australia TEC as well as additional areas which contribute towards the Significant Environmental Benefit required under the *Native Vegetation Act 1991*, for impacts to native vegetation.
Significant impact(s)	Impacts which are important, notable, or of consequence, having regard to their context or intensity, and assessed within the framework of the Matters of National Environmental Significance – Significant Impact Guidelines 1.1, Commonwealth of Australia 2013.

Contents

Figures

Tables

Photos

Appendices

1.0 Introduction

Neoen Australia Pty Ltd (Neoen) is developing the Goyder North Renewable Energy Facility (GNREF) as part of its wider Goyder Renewables Zone (GRZ) concept. The GRZ is ideally located to complement Project EnergyConnect, a large interconnector transmission line which connects the South Australian (SA) transmission network to New South Wales, currently under construction by ElectraNet and TransGrid (pers. comm. Neoen 2024).

The proposed GNREF is located north-east of Burra and east of the Mount Bryan township in the Goyder Regional Council area. The broader GNREF was originally planned to include up to 1,000 Megawatts (MW) and up to 900 MW / 3,600 megawatt hours (MWh) of Battery Energy Storage Systems (BESS). The GNREF was granted Planning Approval under the *Planning, Development and Infrastructure Act 2016* (SA) (PDI Act) in October 2024, following a public State Commission Assessment Panel hearing. In November 2025 (12 November) the GNWF Project was approved under the South Australian *Native Vegetation Act 1991* (Application Number 2025/3089/422).

The design has since been refined and Neoen now proposes to construct Goyder North Wind Farm (GNWF; the Project; formerly referred to as GNREF Stage 1), comprising up to 99 Wind Turbine Generators (WTGs) and approximately 600 MW and 225 MW/900 MWh of BESS. This design has been referred under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to the Commonwealth Department for Climate Change, Energy, the Environment and Water (DCCEEW) to assess impacts to Matters of National Ecological Significance (MNES) (EPBC 2024/09929) and was determined a Controlled Action to be assessed via Preliminary Documentation in November 2024. Preliminary Documentation was finalised in October 2025, prior to being released for public comment. The GNWF Project will either be built in one or two stages.

A significant impact assessment, in accordance with the *Matters of National Environmental Significance: Significant Impact Guidelines 1.1* (DotE, 2013), for the GNWF Project has determined that the Project is likely to have a residual significant impact on Critically Endangered Iron-grass Natural Temperate Grassland (INTG) of South Australia Threatened Ecological Community (TEC), and Endangered Pygmy Bluetongue Lizard (*Tiliqua adelaidensis*).

As these impacts cannot be fully avoided or mitigated, an environmental offset in accordance with the EPBC Act is required to compensate for the residual significant impacts. To address this, Neoen submitted an EPBC Offset Strategy (Umwelt, 2025a) with the Preliminary Documentation, which outlined a broad strategy to compensate for residual significant impacts to MNES, including establishment of on-ground offset sites. Since then, Neoen has further pursued several opportunities for on-ground EPBC Offsets, with the final overarching offset strategy balancing risk across two properties and options, each providing unique benefits and management approaches. The offsets will be implemented in a two-staged approach (Stage 1 and Stage 2), aligned with the Project's construction phases, detailed in **Section 2.4.**

The [redacted] Iron-grass Natural Temperate Grassland Offset Management Plan (INTG OMP) (this Plan) has been prepared for the INTG Offset at a property known as [redacted] to fulfil the offset requirements for Stage 1 and Stage 2 residual impacts to INTG as a result of the GNWF Project.

2.0 Background

2.1 Goyder North Wind Farm Project Description

The GNWF Project is proposed to be developed on multiple freehold land parcels, two parcels of Crown Land and several local road reserves. The Project does not align specifically with any future proposed land parcel or easement, as it is acknowledged that negotiations are ongoing with landowners and minor changes to the Project layout are considered likely, to further minimise potential impacts to environmental or cultural values, or because of landholder negotiations. If required, minor adjustments to the final Project layout (known as micro siting) will be contained within what is referred to as the Development Envelope, but only where this results in an equal or lesser impact to MNES. Micro siting, including any adjustments within INTG, will only occur if it does not result in an increase impact on other co-located MNES, such as Pygmy Blue-tongue Lizard (PBTL).

The layout for the GNWF Project is based on the outcomes of multiple technical, environmental, and social studies including wind studies, heritage assessment, visual impact, and environmental and geotechnical assessments.

Components of the GNWF Project include:

- Up to 99 WTGs requiring a concrete footing and hardstand where heavy machinery can operate.
- A 275 Kilovolt (kV) or 330 kV multi-circuit overhead transmission line (OTL) connecting the wind farm substation to the Bundey Substation approximately 48 km south, including approximately 69 transmission towers, OTL Access tracks, stringing corridor, brake and winch sites, helicopter pads (for areas of non-conventional stringing), and temporary construction compounds and facilities.
- A 225 MW/900 MWh BESS.
- Electrical substations including operation and maintenance facilities including two fenced compounds in the wind farm and expansion of Bundey Substation.
- A network of access tracks to each infrastructure component.
- Ancillary infrastructure including construction compounds and facilities, underground cabling, site access, and met masts.

Table 2.1 briefly summarises the infrastructure components for the GNWF Project and associated clearance areas. The Disturbance Footprint areas specified are an upper limit and are intended to provide flexibility for any innovation in component design between now and the time of detailed design and construction.

Table 2.1 Infrastructure Components and Associated Permanent and Temporary Disturbance Footprint

Component	GNWF Specifications	Permanent Disturbance Footprint (ha)	Temporary Disturbance Footprint (ha)	Total Disturbance Footprint (ha)
Wind Farm (WF)	Components include WTGs, BESS, Substation, Access Tracks	267.90	132.95	400.85

Component	GNWF Specifications	Permanent Disturbance Footprint (ha)	Temporary Disturbance Footprint (ha)	Total Disturbance Footprint (ha)
Overhead Transmission Lines (OTL)	A 275 kV or 330 kV multi-circuit overhead line connecting the wind farm substation to the Bundey Substation approximately 48 km south. Transmission lines will also connect the BESS to the wind farm substation (approximately 400 m). Includes access tracks, towers, brake and winch sites, and helicopter pads for non-conventional stringing.	31.60	31.62	63.22
Other – Ancillary Infrastructure components	Predominantly temporary components required for construction of the GNWF Project.	8.05	64.69	72.75
Total Disturbance Footprint (ha):		**307.56**	**229.26**	**536.82**

2.1.1 Construction Timeframes and Project Staging

Construction of GNWF Project is expected to take approximately 24–36 months. The scale of the GNWF means that the Project will likely be developed in two stages. Construction is likely to take place in two stages with the first stage comprising 48 WTGs, BESS, Substation and OTL, scheduled to commence in Quarter 2 (Q2) of 2026, and the second stage expected to commence construction in approximately Q1 of 2027. Construction duration would be extended by 1–2 years if undertaken in two stages. These timelines are subject to the Project gaining all necessary approvals, undertaking a competitive tender process, and acquiring the appropriate level of contracted revenue to enable financial investment decision to occur.

2.2 Environmental Impact

As outlined in the GNWF Ecological Assessment Report – 2025 (Umwelt, 2025g), Project design overlays including the GNWF Development Envelope (DE) and Disturbance Footprint (DF) were used to calculate areas of impact to vegetation associations and subsequently, to preferred habitat for conservation significant species and TECs. Permanent and temporary impact areas are identified, within which varying levels of impact - both direct and indirect - may occur. Direct (i.e. clearance of vegetation) and indirect (i.e. construction and operation disturbance such as dust accumulation) impacts are considered in detail for INTG in the GNWF Ecological Assessment Report (Umwelt, 2025g) and within the **Section 3.3** of this Plan. Types of impacts resulting from the proposed GNWF Project are described in in **Table 2.2**.

Table 2.2 Types of Impact Resulting from the Proposed GNWF Project

Type	Terminology	Definition
Permanent Disturbance: The areas within the GNWF DF (up to 307.56 ha) which will not be rehabilitated following construction.	**Direct Impact**	Adverse impacts that occur as a result of the action either during construction or operation or both. Includes immediate observable effects of the action such as clearance of vegetation, loss of individual flora or fauna species from construction or from operation of WTGs or disruption of fauna behaviours (such as nesting) within the Disturbance Footprint because of noise and increased activity during construction.
	Indirect Impact	Adverse impacts that could reasonably be predicted to follow from the Project during construction and/or operation, whether these impacts are within the control of the proponent proposing to take that action or not. Indirect impacts may include encroachment of weeds into disturbed areas, change in water runoff / catchments, or behavioural impacts as a result of shadow flicker or noise arising from operation of the Project.
Temporary Disturbance: The areas within the GNWF DF (up to 229.26 ha) which will be cleared during construction to enable access of heavy machinery and construction related activities but rehabilitated following construction where it is reasonable and practical to do so	**Direct Impact Rehabilitated**	Vegetation impacts which involve initial clearance followed by dedicated rehabilitation measures to return the cleared area to its previous state or better where practicable and reasonable to do so. Rehabilitation actions will be undertaken within two years of the initial impact, with efforts concentrated in higher quality vegetation associations.

The GNWF Project will have a total Disturbance Footprint of up to 536.82 ha, which consists of 307.56 ha of permanent Disturbance Footprint and 229.26 ha of temporary Disturbance Footprint, as outlines in **Table 2.1**. Of the total Disturbance Footprint, 453.87 ha is remnant native vegetation which is protected under the SA *Native Vegetation Act 1991* (NV Act). This native vegetation represents habitat for a range of native fauna, flora and ecological communities. Impacts to native vegetation and the associated Significant Environmental Offset (SEB) for GNWF, were approved under the NV Act (Application Number 2025/3089/422) in November 2025.

A summary of permanent and temporary impacts to different vegetation types within the Disturbance Footprint is provided in **Table 2.3**. This impact to native vegetation will be undertaken in two stages, as outlined in **Section 2.1.1** comprising of 256.96 ha for Stage 1 and 196.90 ha for Stage 2 (**Table 2.4**).

Construction of the GNWF Project is expected to take 24–36 months and GNWF is expected to be operational for approximately 25–30 years. As such, the duration of permanent impact (307.56 ha) is estimated to be up to approximately 33 years (construction and operation). As outlined in **Table 2.3** temporary disturbance which totals 229.26 ha will be rehabilitated, via spreading of topsoil, within two years of the initial impact. A rehabilitation plan and monitoring program is outlined in the GNWF INTG Management Plan (Umwelt, 2025b). However, Neoen have also committed to offsetting both permanent and temporary impacts to INTG to ensure that any potential indirect impacts are captured, and the offset exceeds requirements.

Table 2.3 Summary of Vegetation Impacts Within the Disturbance Footprint

Vegetation Type	Permanent Disturbance (ha)	Temporary Disturbance (ha)	Total Disturbance (ha)
Native Vegetation (protected by the SA NV Act)	261.31	192.55	453.87
Amenity Vegetation	0.03	0.02	0.05
Exotic Vegetation	8.07	9.66	17.73
Cropping	11.56	17.30	28.85
Cleared / Un surveyed	26.60	9.72	36.32
Total	**307.56**	**229.26**	**536.82**

Table 2.4 Staging of Direct Impacts Including Impacts to MNES

Stage	Total Disturbance Footprint (ha)	Native Vegetation Impact (ha)	PBTL (Known and Likely) (ha)	INTG (Class B) (ha)
Stage 1	332.91	256.96	213.09	3.99
Stage 2	203.91	196.90	155.01	2.15
Total	**536.82**	**453.87**	**368.10**	**6.14**

2.3 EPBC Act Approval Conditions

As the GNWF Project EPBC Act approval is still underway, specific approval conditions have not yet been drafted. However, it is anticipated that these conditions are likely to include a requirement for environmental offsets, supported by an Offset Management Plan (OMP) to compensate for residual significant impacts to INTG. The OMP must be approved by the Minister.

DCCEEW have requested an OMP (this Plan) that satisfies the requirements of the EPBC Act, be submitted with the Preliminary Documentation to assist in determining the adequacy of offsets and thus, guide the GNWF Project approval decision and conditions. This document has been prepared to satisfy the requirement for an OMP and outlines the environmental offsets that will be implemented to compensate for residual impact to the INTG, resulting of Stage 1 and Stage 2. As the OMP will be reviewed and commented on by the Department prior to the conditions being drafted, the conditions of approval will not set out the requirements for the OMP. The document will be updated following the outcome of the EPBC Referral decision and finalisation of the offset and associated management, if required..

2.4 GNWF Project EPBC Offset Package and Staging

Neoen is implementing a comprehensive package of EPBC offsets designed to both offset and outweigh the impacts to MNES arising from the GNWF Project. An EPBC Offset Strategy was developed for the project (Umwelt, 2025a), which has now been refined to provide a complete offset package. This EPBC offset package is structured to balance risk across two properties and offset options, each contributing unique benefits and management strategies for the impacted MNES.

The scale of the GNWF Project means that the Project will likely be developed in two stages, with each stage potentially having its own legal entity, construction contracts and financing packages. Impacts to MNES resulting from each stage of development are detailed in **Table 2.4.** Offsets will be delivered in a staged approach, commensurate with the stage of development under construction, however, all offsets for both stages of development have been defined to the satisfaction of DCCEEW to make an

approval determination for the entire GNWF. The GNWF Offset Package including the EPBC Offset Package for the GNWF Project is mapped in **Figure 2.1**.

Legal agreements will be in place with landholders prior to final investment decision, to ensure that the DCCEEW approved offset areas are secured contractually, with financial investment decision and final purchase (securement) of offset sites being undertaken immediately prior to construction of the corresponding stage of the GWNF Project. This effectively allows the financial investment in staged offsets to be aligned with the staged impacts that are being compensated for by the offset.

[redacted]The staged approach to delivering these offsets is summarised in **Table 2**.

The remaining PBTL offset requirement [redacted]%) will be met through compensatory measures, specifically a research component, with details to be determined in consultation with Flinders University, the PBTL Recovery Team and DCCEEW. This diversified approach ensures that offset obligations are met in a robust, transparent, and adaptive manner, maximizing conservation outcomes for the affected MNES, to deliver an overall conservation outcome that improves or maintains the viability of the protected matters (**Section 4.4**).

Table 2.5 Overall EPBC Offset Package Summary

Offset	Type of Offset	MNES Offset	Area (ha)	Total (Stage 1 and Stage 2) Offset Provided (%)	Approximate Value ($)
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Research	[redacted]		[redacted]	[redacted]	[redacted]

Table 2.6 Contribution of Offsets to Each Stage of the GNWF Project

Offset	Offset	Type	Offset Purpose	Area (ha)	% of Offset Provided	Approximate Value ($)
Stage 1	[redacted]					
	[redacted]					
	[redacted]					
Stage 2	[redacted]					
	[redacted]					
	[redacted]					

[redacted] The staging of offsets is detailed in **Table 2** and **Figure 4.1.**

The compensatory offset for residual impacts to PBTL will be in the form of research, to contribute to knowledge of the species, specifically to determine effectiveness of mitigation measures implemented at GNWF (the impact site). This research initiative will be conducted in partnership with Flinders University, focusing on the relocation success of PBTL. The research aims to gather scientifically robust data to investigate the viability of the relocation as a mitigation method to reduce impacts to PBTL. Likely research questions include the survivorship of relocated individuals, their behaviour following relocation (such as dispersal patterns), the impact on local genetics, and the influence of relocation methods (e.g. soft or hard release). A separate, detailed research plan will be developed to guide this component, ensuring transparency, effectiveness, and alignment with best practice offset principles.

Neoen has also acquired an offset property located at 92 Civilization Gate Road, Mount Bryan East, covering approximately 1,297.23 ha to the north of the GNWF Project Area. This property has been approved by the Native Vegetation Council as a Significant Environmental Benefit (SEB) offset under the *Native Vegetation Act 1991* for a portion of the native vegetation impacts arising from the Project. Referred to as the SEB Site – Stage 1, it includes potentially suitable habitat for PBTL, totalling 305.87 ha (comprising native grassland, historically cropped grassland more than 20 years old, and Lomandra grassland), as well as 44.94 ha of Class B and Class C INTG. This site provides additional contingency within the proposed GNWF Project offset package, ensuring flexibility should any currently unrealised impacts arise during the Project, including potential risks of land acquisition as detailed in **Section 7.2**.

Ultimately, the construction schedule will determine when ground disturbance occurs, which will influence the required timing for final securement and implementation of offsets. Offset securement for a particular stage of construction will occur prior to 'breaking ground' for that stage.

Separate site-specific OMP's are provided for each of the direct (on-ground) offsets, for each MNES, and, once the Project has received EPBC approval, a research plan will be developed by Flinders University for the compensatory component.

This document is the [redacted] INTG OMP, which is the direct offset component for Stage 1 and Stage 2 of GNWF [redacted]

2.5 Scope and Objectives of this Plan

The objectives of this [redacted] INTG OMP are to guide the establishment, implementation and management of a portion of the INTG EPBC Offsets for the GNWF Project, and to ensure the relevant EPBC approval conditions are met.

More specific objectives of this Plan are to:

- Provide general information on the ecology of INTG and factors to consider, including known and/or potential threats to the TEC, when establishing, implementing and managing the INTG Offset (**Section 3.0**).
- Outline the residual impacts of the GNWF Project on INTG that require environmental offsets (**Section 3.3.3**).
- Outline the type of offset being implemented (**Section 2.4** and **Section 4.1.5**).
- Describe the [redacted] Offset Site and INTG Offset Area characteristics (**Section 4.0**).
- Outline the calculation of the required offset and provide the completed Offsets Assessment Guide (OAG) for the INTG Offset required, including discussion/justification for the figures used to complete the offset calculation (**Section 4.2.1**).
- Outline important details of the INTG Offset, including the method of securing and managing the offset (**Section 5.1** and **Section 5.2**).
- Outline the conservation gain to be achieved by the INTG Offset, including positive management strategies that improve the sites and / or avert the future loss or degradation of INTG (**Section 4.2.1, Section 4.3** and **Section 5.3**).
- Demonstrate how the offset is consistent with the EPBC Act Environmental Offsets Policy (DSEWPaC, 2012a) (**Section 4.4**).
- Outline the management objectives, management aspects and associated actions (**Section 5.3**) and implementation responsibilities (**Section 5**).
- Detail a monitoring program to assess the success of the management actions and objectives, as well as reporting, corrective actions, adaptive management and the review and update schedule associated with this [redacted] INTG OMP (**Section 6.0**).
- Outline the risks associated with securement and implementation of this Plan and how risks will be managed (**Section 7.0**).

Note that this OMP is separate from the INTG Management Plan (Umwelt, 2025b), which relates to INTG management and mitigation at the Impact Site (GNWF) during construction and operation of the WF.

2.6 Relevant Policies and Documents

This Plan has been prepared in accordance with the following statutory documents (**Table 2.7**) and other relevant documents (**Table 2.8**).

Table 2.7 Statutory Documents Relevant to INTG

Document Name	Where and How the [redacted] INTG OMP Addresses the Document
Approved Conservation Advice for Iron-grass Natural Temperate Grassland of South Australia (DEWHA, 2008). http://www.environment.gov.au/biodiversity/threatened/communities/pubs/37-conservation-advice.pdf	This Plan will include management measures (**Section 5.0**) to address threats to INTG and be consistent with and/or contribute to conservation and recovery actions identified in the Conservation Advice, as much as possible.
National Recovery Plan for the Iron-grass Natural Temperate Grassland of South Australia ecological community, 2012 (Turner, 2012). http://www.environment.gov.au/biodiversity/threatened/recovery-plans/national-recovery-plan-iron-grass-natural-temperate-grassland-sa	This Plan will be consistent with and/or contribute to the objectives of the INTG Recovery Plan as much as possible. For example, it will contribute to: • maintain or improve the condition of remnant INTG • increase the area of INTG secured and managed for conservation • Increase the area of occupancy of INTG across its natural range.

Table 2.8 Other Relevant Documents Related to this INTG OMP

Document Name	Where and How the Strategy Addresses the Document
EPBC Act policy statement 3.7 – Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia and Iron-grass Natural Temperate Grassland of South Australia (Department of the Environment and Water Resources, 2007). http://www.environment.gov.au/epbc/publications/peppermint-box-iron-grass-policy.html	As outlined in **Section 3.3** and **4.1.4.3** all INTG surveys and assessments have been undertaken in accordance with this policy statement, which contains INTG Class criteria.
Guidelines for biological survey and mapped data (Commonwealth of Australia, 2018) https://www.dcceew.gov.au/environment/environment-information-australia/information-policy/guidelines-for-biological-survey-mapped-data	All INTG surveys and data processing have been undertaken in accordance with this guideline. All future surveys and data processing, for example at the [redacted] INTG Offset Area, will also be undertaken in accordance with this guideline.
Guide to providing maps and boundary data for EPBC Act projects (DAWE, 2021). Guide to providing maps and boundary data for EPBC Act projects - DCCEEW	All INTG surveys and data processing have been undertaken in accordance with this guideline. All future surveys and data processing, for example at the [redacted] INTG Offset Area, will also be undertaken in accordance with this guideline.
Native Vegetation Act 1991 (NV Act) and associated *Native Vegetation Regulations 2017* (NV Regulations).	All vegetation surveys and assessments have been undertaken in accordance with the NV Act and associated NV Regulations. A Heritage Agreement in accordance with the NV Act and associated NV Regulations will be implemented for the INTG Offset.
Landscape South Australia Act 2019 (LSA Act)	Management measures within the INTG OMP to control invasive weeds and feral animals will be in accordance with LSA Act requirements.
National Parks and Wildlife Act 1972 (NPW Act)	In accordance with the NPW Act, various Permits for vegetation survey, monitoring and specimen collection are required, and will be held or obtained by the relevant parties prior to undertaking such work.

3.0 Iron-grass Natural Temperate Grassland

3.1 EPBC Legal Status and Associated Documents

The EPBC Act legal status and associated documents for INTG, as provided within DCCEEW's Species Profile and Threats (SPRAT) Database (online), are presented in **Table 3.1**.

Table 3.1 INTG Conservation Documentation

EPBC Status	Listed as Critically Endangered (Date effective 21 June 2007)
Approved Conservation Advice (DEWHA, 2008)	Department of the Environment, Water, Heritage and the Arts (2008). Approved Conservation Advice for Iron-grass Natural Temperate Grassland of South Australia. Canberra: Department of the Environment, Water, Heritage and the Arts. Available from: http://www.environment.gov.au/biodiversity/threatened/communities/pubs/37-conservation-advice.pdf. In effect under the EPBC Act from 16 December 2008.
Listing Advice	Threatened Species Scientific Committee (TSSC 2007). Commonwealth Listing Advice on Iron-grass Natural Temperate Grassland of South Australia. Available from: http://www.environment.gov.au/biodiversity/threatened/communities/pubs/l-effusa.pdf. In effect under the EPBC Act from 22 June 2007. The TEC is eligible for listing as critically endangered under Criterion 1 – Decline in geographic distribution as it has undergone a likely decline in extent of >95%. Similarly, it is eligible for listing as Vulnerable under Criterion 2 and 4, being its restricted distribution subjected to ongoing threats and reduction in community integrity, respectively.
Adopted/Made Recovery Plan (Turner, 2012)	Turner (2012). National Recovery Plan for the Iron-grass Natural Temperate Grassland of South Australia ecological community 2012. Department of Environment and Natural Resources, South Australia. Available from: http://www.environment.gov.au/biodiversity/threatened/recovery-plans/national-recovery-plan-iron-grass-natural-temperate-grassland-sa. In effect under the EPBC Act from 24 July 2012.
Adopted/Made Threat Abatement Plan	No Threat Abatement Plan has been identified as being relevant for this ecological community
Policy Statements and Guidelines (DEWR, 2007)	EPBC Act policy statement 3.7 - Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia and Iron-grass Natural Temperate Grassland of South Australia (DEWR 2007) [Admin Guideline]. Farming and nationally protected Iron-grass Natural Temperate Grassland (Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC 2011c) [Information Sheet]

3.2 Ecology

INTG TEC is classified as a natural grassland dominated by *Lomandra effusa* or *Lomandra multiflora* ssp. *dura* (tussock forming perennial grasses and iron-grasses). Between 10% and 70% of the ground cover is covered by *Lomandra* ssp. with a range of herbaceous plant species in the inter-tussock spaces, and an absence (<10% cover) of trees or shrubs (Turner, 2012). The terms 'Lomandra Grassland' and 'Iron-grass Grassland' are used interchangeably for this ecological community. However, 'INTG' typically refers to the listed TEC, whilst 'Lomandra Grassland' refers to the general community in all its forms, regardless of condition.

The TEC is unique as it is the only recognised temperate grassland community dominated by tussock-forming species that are not true grasses, and the only location where *Lomandra* species occur in sufficient density to form a dominant stratum (Turner 2012). *Lomandra* species are members of the Liliaceae family.

The floristic composition of INTG includes characteristic iron-grasses in addition to perennial native grasses such as *Aristida behriana, Austrostipa* spp., *Rytidosperma* spp. and others. The inter-tussock spaces are filled with herbaceous species which may only be visible seasonally, such as *Arthropodium strictum* (Chocolate Lily), *Bulbine bulbosa* (Bulbine Lily), *Calocephalus citreus* (Lemon Beauty-heads), *Eryngium* spp. (Blue Devil), *Goodenia* spp., *Vittadinia* spp. *Wahlenbergia* spp. (Bluebells) and others. Shrubs form a minor component of some INTG communities, and may include *Bursaria spinosa* (Sweet Bursaria), *Cryptandra Amara* spp. (Long-flower Cryptandra), *Enchylaena tomentosa* (Ruby Saltbush) and others (DEWR, 2007).

A number of threatened flora and fauna species are associated with the INTG TEC including *Aprasia pseudopulchella* (Flinders Ranges Worm-lizard), *Tiliqua adelaidensis* (Pygmy Blue-tongue Lizard), *Cullen parvum* (Small Scurf-pea) and *Dodonaea procumbens* (Trailing Hop-bush) (Threatened Species Scientific Committee, 2007).

3.2.1 Condition Classification

The Iron-grass listing criteria (DEWR, 2007) separates INTG into Condition Classes based on native plant species diversity, composition and native perennial tussock density. Three Condition Class categories have been defined (**Table 3.2**):

- Areas of Class A INTG are considered the highest quality representation of the community.
- Condition Class B INTG areas are also considered of high quality, but do not have the native species diversity of Class A INTG.
- Class C INTG areas are typically significantly degraded (low condition), are not included as the listed ecological community and therefore do not trigger the 'significant test' of the EPBC Act. However, Class C INTG is still considered to be amenable to rehabilitation through measures such as weed control, natural regeneration and protection from grazing.

Table 3.2 Criteria for Listing INTG as a TEC (Adapted from DEWR 2007)

Condition Class	Minimum Patch Size (ha)	Diversity of Native Species[1]	No. Broad-leaved Herbaceous Species[1] in Addition to DRS[2]	No. Native Perennial Grass Species[1] (Excluding *Lomandra* spp.)	Tussock Count[3]
Constitutes INTG TEC					
A	≥0.1 ha	>30	≥10	≥5	≥1/m
B	≥0.25 ha	>15	≥3	≥4	≥1/m
Does not constitute INTG TEC, but amenable to rehabilitation					
C	No minimum	>5	No minimum	≥1	No minimum

[1] Surveyed within a 50 m x 50 m (or equivalent 2,500 m^2) quadrat within a representative area of each patch.

[2] DRS (Disturbance resistance species): *Ptilotus spathulatus*; *Sida corrugata*; *Oxalis perennans*; *Euphorbia drummondii*; *Maireana enchylaenoides*; *Convolvulus angustissimus*).

[3] Average count as measured along a 50 m transect, including all native perennial tussock species i.e. true grasses, as well as species of *Lomandra*, *Dianella*, *Gahnia*, *Lepidosperma* and other perennial sedges and rushes.

3.2.2 Habitat

Remnants of Lomandra grassland generally occur on gentle slopes of low hills approximately 380 m above sea level and predominantly on loams to clay-loams with an estimated clay content of 30–35% (Turner 2012; DEWR 2007). Surface pebbles are common at some sites, including areas of rock outcrop. INTG is associated with a Mediterranean climate, with hot dry summers and cold wet winters with mean annual rainfall ranging from 280–600 mm per year.

An early study by Specht (2007) (cited in Turner 2012) found that *Lomandra* tussocks occurred in the higher altitude regions, with the community extending into broad valleys between the hills, where density of *Lomandra* declined, replaced by a higher dominance of native grasses. A more recent study (Neagle 2008 in Turner 2012) found that in the southern areas of its distribution, *Lomandra effusa* grassland occurred on the higher hill slopes and crests, with *Lomandra multiflora* occurring on the lower slopes.

The species is known to co-occur with or occur adjacent to Critically Endangered Peppermint Box Grassy Woodland (PBGW) of South Australia TEC.

No Critical Habitat as defined under section 207A of the EPBC Act has been identified or included in the Register of Critical Habitat for INTG. However, the Recovery Plan (Turner 2012) states that given the small area remaining, all sites that meet the criteria for the listed ecological community should be considered habitat critical to the survival of the ecological community. The following additional criteria is considered when assessing the significance of remnants:

- Moderate to high native species diversity in the remnant as a whole.
- Presence of different age cohorts of *Lomandra* including signs of regeneration and recruitment.
- Presence of different vegetation strata within the grassland.
- Native fauna species diversity and presence of grassland fauna habitats.
- Presence and condition of microphytic/cryptogamic crust.
- Variations in grassland structure, including open spaces and bare patches.
- Presence of one or more listed threatened species.
- Presence of grazing sensitive species.
- Remnant size and shape.
- Connectivity with other remnants of the ecological community and/or remnants of other ecological communities.
- Low weed density, species diversity and/or limited distribution in remnants.
- Potential for restoration.

3.2.3 Distribution and Abundance

The INTG TEC is endemic to South Australia, where it predominantly occurs in the Flinders Lofty Block bioregion with smaller occurrences in Kanmantoo, Eyre Yorke Block and Murray Darling Depression Bioregions (Turner 2012).

The area of INTG at the time of European settlement has been estimated at between 750,000 to 1,000,000 ha (Specht, 1972; Hyde, 1995; Turner, 2012). At the time of listing under the EPBC Act in 2007, the remaining area of INTG of any condition, including highly degraded remnants, was thought to be less than 50,000 ha (Department for Transport, Urban Planning and the Arts, 2000; Turner, 2012), whilst the area meeting the criteria for the listed threatened ecological community is thought to be substantially less and may be less than 5,000 ha (Hyde 1995; TSSC 2007 in Turner 2012). As much of the remaining grasslands (up to 95%) occur on privately owned land tenures, knowledge of the area and condition of INTG is not complete (TSSC 2007; Turner 2012).

Temperate native grasslands were once dominant across the region, however due to land clearing practices for agriculture, are now mainly confined to non-arable hills and ranges, rocky slopes and rocky areas in arable paddocks. Similarly, agricultural grazing practices have altered the composition of grasslands through the introduction of introduced annual grasses and weeds.

Broadscale mapping of INTG is problematic as they are difficult to distinguish from other grassland or pasture types in aerial imagery and, many are largely inaccessible by road and therefore unable to be verified on ground. Additionally, the condition assessments are further limited by the seasonal nature of herbaceous species which require on ground assessment, often during good seasonal conditions, to detect.

3.2.4 Known and/or Potential Threats

The main identified threats to INTG listed in the Approved Conservation Advice (DEWHA, 2008) are land clearing, grazing and weed invasion. More specifically the Recovery Plan lists the following threats of concern to INTG, many of which interact and further compound impacts:

- General lack of awareness and recognition of native grasslands, including INTG, as native vegetation.
- Changes in land use such as grazing stocking rates, cropping expansion, use of chemical pesticides and herbicides, and changes to location of feed-lots and water supplies.
- Weed invasion causing degradation of the community.
- Exotic animals and overabundant native species degrading grassland habitats, spreading weeds and predating on associated fauna.
- New infrastructure and development.
- Inappropriate or altered fire regimes and damage to vegetation from fire suppression activities.
- Ongoing and intensified stress and degradation due to fragmentation of the community and resulting loss of ecological processes such as seed dispersal and pollination.
- Climate change resulting in plant stress and intensified impacts of existing grazing practices, or failure to adopt best practice grazing strategies due to lack of feed for livestock.

3.3 INTG Occurrence Within the GNWF Project Area

The INTG TEC is known to occur within the Disturbance Footprint, Development Envelope and broader Project Area. The GNWF Project Area occurs on the eastern edge of the mapped extent of the INTG

ecological community. INTG has been mapped across the WF component of the Project Area, with scattered patches occurring along the OTL alignment.

INTG within the GNWF Project Area has been heavily impacted by historical clearance for cropping, and by ongoing impacts of livestock grazing. Additionally, a large swathe of INTG within GNWF was subjected to a grass fire in summer 2023. Coupled with dry conditions and grazing, the INTG within this area has struggled to regenerate over the last two years, and is generally in poor condition.

Since 2022, surveys have mapped the occurrence, extent and estimated Condition Class of INTG and other vegetation associations within the Project Area. The precautionary approach was adopted for early designs as surveys were not targeted to assessing the Condition Class of INTG as set out under the Criteria for listing INTG as TEC (DEWR, 2007). However, additional targeted surveys were undertaken in spring 2024 to classify the Condition Class of patches of INTG occurring in the Disturbance Footprint, according to the criteria and methodology set out in the *EPBC Act Policy Statement 3.7* (DEWR, 2007) and National Recovery Plan (Turner, 2012).

A total of 23 sites were surveyed for INTG Condition Class within the Project Area, with one site determined to be Class A INTG, 14 sites Class B INTG and eight sites Class C. Given the dry conditions and ongoing grazing practices, the precautionary principle was applied to sites where the criteria were close to being met, with sites upgraded to Class B in these situations (Umwelt, 2025b)

Within the GNWF Project Area, a total of 1,931.24 ha of vegetation has been mapped as VA6: Lomandra Grassland, of which 1,498.09 ha has been assessed as meeting the criteria for listing as INTG TEC (**Table 3.3**). Of this, 8.59 ha is within the Disturbance Footprint, including 6.14 ha of INTG TEC (Class B). A further 1,619 ha of Lomandra Grasslands are mapped within the broader GNREF, however these areas have not been subject to targeted assessments.

Although there is one patch of Class A INTG TEC in the GNWF Project Area, this patch is not within the Disturbance Footprint or Development Envelope, and no direct or indirect impacts to it are expected as a result of the Project.

The areas of impact are displayed in **Figure 3.1** and **Figure 3.2**.

Table 3.3 Occurrence of INTG within the GNWF Project Area and Disturbance Footprint

INTG Class (A, B or C)	INTG TEC (yes/no)	GNWF Project Area (ha)	GNREF Total (ha)	Impacted by DF (yes/no)	DF (ha)	% of GNWF INTG impacted
INTG Class A	Yes	18.02	18.02	No	0.00-	0.00
INTG Class B	Yes	1,480.07	1,923.32	Yes	6.14	0.42
INTG Class C	No	307.63	307.63	Yes	2.44	0.79
Unsurveyed Lomandra Grassland	-	125.51	858.38	No	0.00	0.00
Total Area of Lomandra Grassland in GNWF		1,931.24	3,107.35	-	8.59	0.44
Total Maximum Confirmed TEC (includes Class A, B)		1,498.09	1,941.34	-	6.14	0.41

A summary of the likely direct impacts and potential indirect impact pathways to INTG TEC associated with development (i.e. construction) and/or operation of the GNWF Project, is presented in **Section 2.1.1**, in **Table 2.1**.

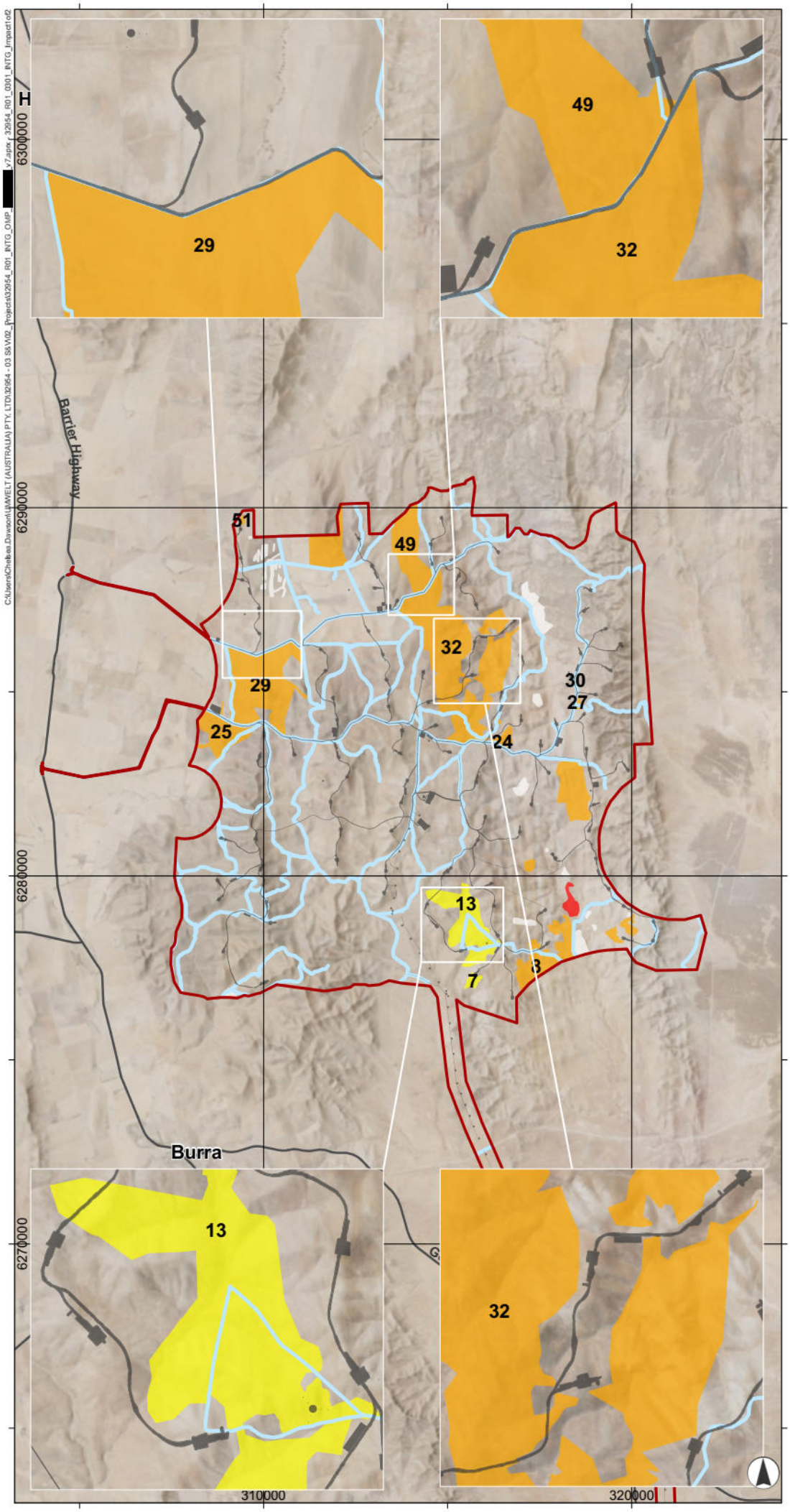


FIGURE 3.1

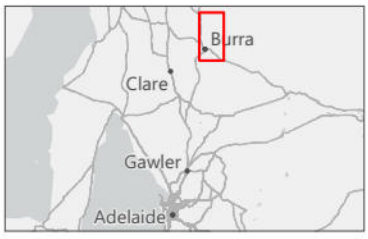
INTG Impacted by the Disturbance Footprint in GNWF (1 of 2)

Legend

- GNWF
- Disturbance Footprint
- Existing road
- Main road

INTG Condition

- Class A
- Class B
- Class C
- Unsurveyed



0 2 4

Kilometres

Scale 1:147,500 at A4
GDA2020 MGA Zone 54

umwelt

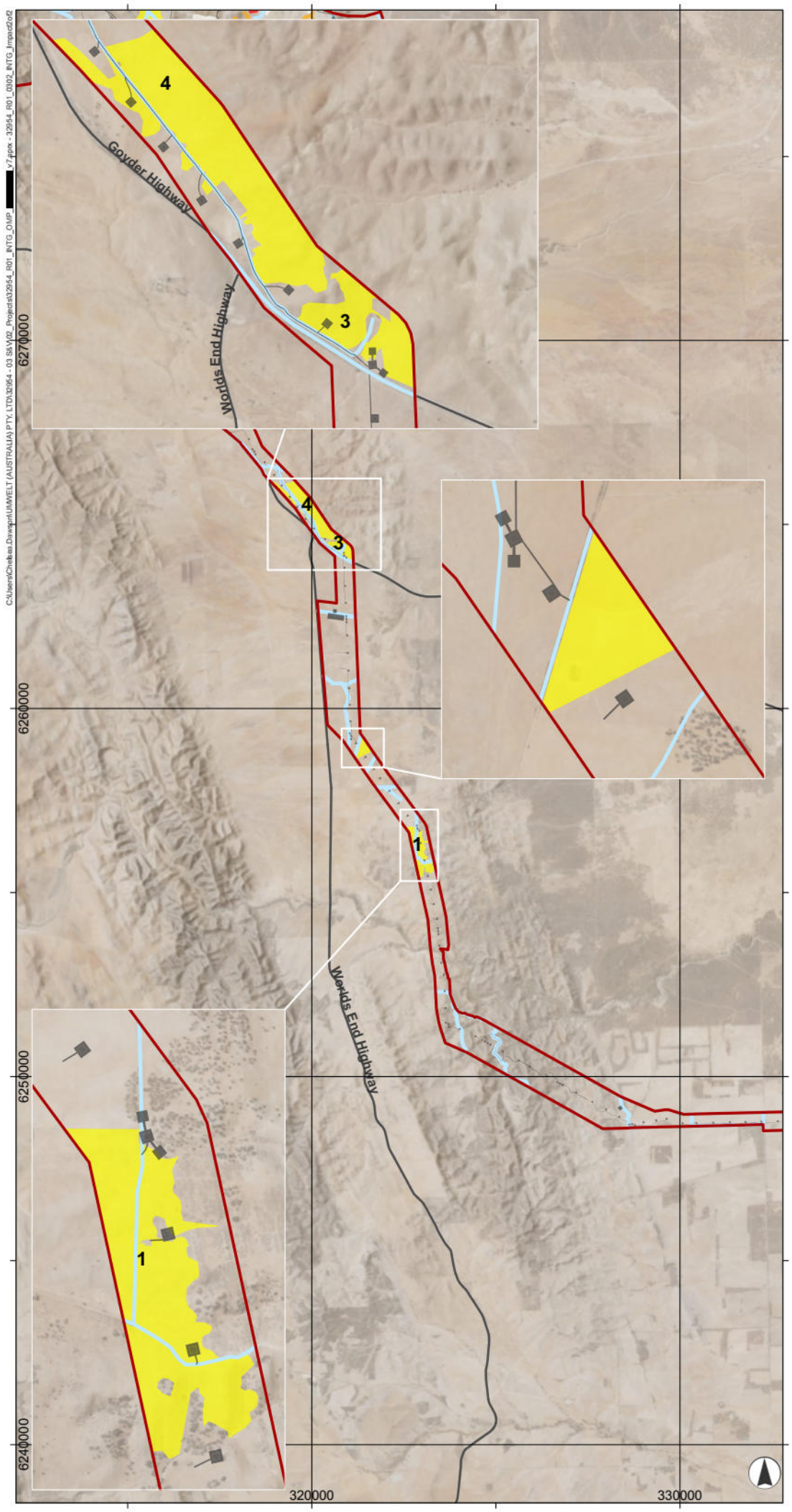


FIGURE 3.2

INTG Impacted by the Disturbance Footprint in GNWF (2 of 2)

Legend

- GNWF
- Disturbance Footprint
- Existing road
- Main road

INTG Condition

- Class A
- Class B
- Class C
- Unsurveyed

0 2 4

Kilometres

Scale 1:147,500 at A4
GDA2020 MGA Zone 54

3.3.1 Summary of Likely Direct and Potential Indirect Impacts to INTG

Table 3.4 lists the likely direct and potential indirect impacts to INTG occurring because of the development of the GNWF Project.

Table 3.4 Likely Direct and Potential Indirect Impacts to INTG

During Construction	During Operation	Comment
Likely Direct Impacts		
Direct loss of up to 6.14 ha of Class B INTG TEC through vegetation clearance for construction purposes.	No direct impacts are expected during operation.	Neoen are seeking to further minimise these direct impacts in the coming months, through design refinements. In addition, the location of infrastructure, including, but not limited to, vehicle access tracks, WTGs and underground electrical reticulation (installed via trenching), will be micro-sited within the Development Envelope away from INTG TEC, when practicable, during pre-construction surveys to further avoid and/or minimise direct impacts.
Potential Indirect Impacts		
Clearance of INTG TEC outside the approved clearance area.	Clearance of INTG TEC outside the approved clearance area (i.e. via maintenance of existing infrastructure).	Avoidable through specific controls and management measures outlined in the Goyder North Wind Farm Iron-grass Natural Temperate Grassland Management Plan (INTG MP) (Umwelt, 2025b) as well as the Construction Environmental Management Plan (CEMP) (Umwelt, 2025h - in draft) and the Operational Environmental Management Plan (OEMP).
Loss of topsoil and subsequent erosion in areas adjacent to INTG patches, which may lead to impact within the TEC.	Construction related indirect impact, not expected to occur during operation.	Avoidable through specific controls and management measures outlined in the INTG MP, the CEMP and the OEMP.
Sedimentation of INTG TEC from construction run-off (soil).	Construction related indirect impact, not expected to occur during operation.	Avoidable through specific controls and management measures outlined in the INTG MP, the CEMP and the OEMP.
Altered hydrology (due to altering of drainage lines through excessive runoff).	Construction related indirect impact, not expected to occur during operation.	Avoidable through specific controls and management measures outlined in the INTG MP, the CEMP and the OEMP.
Dust emissions smothering flora and suppressing photosynthesis, leading to reduction in plant health.	Low traffic volume during operation, impacts not expected to occur during operation.	Short term potential impact during construction only, which can be minimised through specific controls and management measures outlined in the INTG MP, the CEMP and the OEMP.

During Construction	During Operation	Comment
Altered grazing regimes (increased grazing, preferential grazing, reduction or loss of grazing, altered grazing times).	Altered grazing regimes (increased grazing, preferential grazing (e.g. under turbine shade), reduction or loss of grazing, altered grazing times).	Difficult to predict likelihood and/or level of occurrence and likely consequence. During construction, any potential impact is expected to be short-term in nature and temporary. However, potential impacts will be identified during monitoring and corrective action undertaken if required. Addressed in INTG MP.
Introduction of new weeds to the Project Area, or increase in weeds, through use of contaminated construction material, machinery and vehicles, leading to loss of vegetation condition.	Introduction of new weeds to the Project Area, or increase in weeds, through foot-traffic, light vehicles and other machinery that may be required during the operational phase (limited/minimal) leading to loss of vegetation condition.	Avoidable through specific controls and management measures outlined in the INTG MP, the CEMP and the OEMP.
Stockpiling of equipment and materials and introduction of rubbish and waste materials causing degradation to the integrity of the grassland.	Construction related indirect impact, not expected to occur during operation.	Avoidable through specific controls and management measures outlined in the INTG MP, the CEMP and the OEMP.
Chemical spills (e.g. fuel/diesel) leading to loss or reduction of vegetation condition.	Chemical spills (e.g. fuel/diesel) leading to loss of vegetation condition.	Avoidable through specific controls and management measures outlined in the INTG MP, the CEMP and the OEMP.
Vehicles and/or machinery driving on INTG TEC outside of approved clearance areas and tracks.	Vehicles and/or machinery driving on INTG TEC outside of approved clearance areas and tracks.	Avoidable through specific controls and management measures outlined in the INTG MP, the CEMP and the OEMP.

3.3.2 Application of the Mitigation Hierarchy

Neoen have undertaken a significant and extensive number of technical investigations during the planning phase to identify potential impacts of the proposed action on the environment and have adjusted the design, particularly the location and layout of infrastructure, as much as possible and practicable, to avoid and/or minimise impacts on the environment. Technical investigations of relevance to INTG are outlined in **Table 3.5**.

Table 3.5 Technical Investigations Relevant to INTG

Assessment Description	Assessment Year	Survey Type	Citation
GNREF on-ground flora assessment (GNWF, GN3)	November 2022	On-ground broad flora survey and fauna habitat assessment, and desktop assessment.	(EBS Ecology, 2022)
GNREF Ecological constraints mapping	July 2023	Desktop summary of known ecological constraints to guide wind farm design process.	(EBS Ecology, 2023b)
GNREF and OTL Ecological Risk Assessment Summary	September 2023	Desktop summary of wind farm design revisions based on known ecological constraints.	(EBS Ecology, 2023c)
GNWF on-ground flora assessment	November 2023	Targeted GNWF and OTL native vegetation (and habitat) assessment.	(Umwelt, 2025d)
GNWF on-ground flora assessment	February 2024 - March 2024	Native vegetation surveys (and habitat assessment) on additional proposed access and infrastructure areas for GNWF and OTL (White Hill Road, Gum Hill Road, Belcunda Road, OTL remaining/ adjusted alignment)	(Umwelt, 2025d)
GNWF on-ground flora assessment	September 2024	On-ground vegetation (and habitat) assessment of areas in GNWF incorporated into updated design.	(Umwelt, 2025d)
GNWF targeted INTG assessment	October 2024	Targeted on ground INTG condition class assessment.	(Umwelt, 2025e)

The infrastructure layout has proceeded through a series of changes and adjustments as the iterative process of initial investigation, layout review and refinement has occurred a number of times, as information became available from the engagement process, the specialist investigations and Neoen's own technical and construction advice.

Flora and fauna assessments for the GNWF have enabled Neoen to identify and understand constraints, and potential impacts to flora and fauna, including MNES, and apply a risk mitigation to the design. All stages of the GNWF design have been undertaken with consideration of vegetation mapping, and the known locations of threatened species populations and habitat, particularly INTG TEC.

Extensive INTG TEC condition assessment surveys have been undertaken across the Disturbance Footprint to map INTG TEC occurrence and extent and determine an accurate estimate of the potential impact on INTG TEC. This information has been utilised to inform the design process to avoid where possible or to minimise the disturbance footprint in these locations.

Design of the Disturbance Footprint has been weighted towards existing degraded areas (existing roads and tracks and other cleared areas), cropped areas and exotic vegetation, to minimise impacts to native vegetation, particularly INTG TEC.

Project infrastructure has specifically been designed and/or located to avoid direct impact to INTG TEC as much as possible through application of the Mitigation Hierarchy. Ongoing application of these

mitigation measures will seek to avoid direct impacts even further. The current assessment represents a worst-case scenario in terms of potential impacts.

In addition, the location of infrastructure, including, but not limited to, vehicle access tracks, WTGs and underground electrical reticulation (installed via trenching), will be micro-sited (i.e. moved and/or adjusted slightly) within the Development Envelope away from INTG TEC, wherever possible, prior to commencement of construction works to avoid and/or minimise direct impacts to INTG TEC. Infrastructure will not be micro-sited if doing so does not result in a reduction of potential impacts to INTG TEC. Neoen also commits that micro-siting will not increase impacts to INTG and/or any other MNES, as detailed in the site specific INTG Management Plan (Umwelt, 2025b)

Furthermore, while the Project has the potential to cause indirect impacts to INTG TEC, such as, but not limited to, erosion, sedimentation, dust and weeds, these indirect impacts will be avoided and/or minimised during construction and operation of the Project via implementation of specific controls contained within the INTG TEC Management Plan. Lessons learnt on mitigating potential impacts on INTG TEC from the Goyder South Hybrid Renewable Energy Facility Project, will be adopted and applied to the GNWF Project if relevant.

Avoidance and mitigation measures implemented during detailed design, and those proposed as part of ongoing Project refinements, as well as during construction and operational phases, are outlined in **Table 3.6.** Whilst every effort has been made to avoid MNES and other sensitive areas where possible, engineering and landscape constraints mean that some impacts cannot be completely avoided. More details on the avoidance and mitigation measures are available in GNWF Preliminary Documentation, INTG Management Plan and other GNWF Project supporting documents.

Table 3.6 Avoidance and Mitigation Measures Applied and Proposed for INTG

Avoidance / Mitigation Measure	Description	Effectiveness
PRE-CONSTRUCTION / DESIGN		
Site selection	Original site selection was based on: • the world-class wind resource • proximity to major transport routes and existing grid infrastructure • location on the edge of Goyder's Line in marginal agricultural cropping land which had historically been cleared and utilized for grazing • the rural location with low population density, reducing visual and noise impacts.	High – the Project Area is situated in an area of relatively low economic, ecological and social value.
Vegetation surveys	Multiple surveys have been conducted at various points in the Project design and development stage, including: • Early broad mapping of the site vegetation, condition and quality. • Detailed vegetation surveys using Bushland Assessment Method (BAM) to refine mapping and confirm condition, suitable for Native Vegetation Clearance Data Report under SA Legislation. • Targeted INTG TEC surveys within Disturbance Footprint and Development Envelope to refine mapping and measure	High - determined areas of higher quality Lomandra Grassland and enabled early avoidance, with provision of ecological constraints mapping and risk analysis (EBS Ecology, 2023a; EBS Ecology, 2023b). This resulted in refinement to focus on developing the southern portion of the GNREF, effectively avoiding the large area of INTG concentrated in the northern portion of the GNREF, which accounts for over 37.85% of the INTG mapped in the GNREF, despite the northern portion of the GNREF accounting for only 17.55% of the overall Project Area.

Avoidance / Mitigation Measure	Description	Effectiveness
	against condition class criteria, to inform further micro-siting and management. This approach ensured that all INTG was mapped and avoided as much as practicable in the first instance, with the precautionary principle applied to indicate that all Lomandra Grasslands could constitute the TEC.	This also resulted in a reduction of impact to INTG (all condition classes) from 41 to 16 proposed WTGs in the preliminary design and careful placement of roads and cables to avoid fragmenting areas of INTG. From this revised and reduced turbine layout, a civil design of the likely road locations and hardstand extents was developed, by adopting 'exclusion areas' where possible for identified high quality (likely INTG) areas. This methodology effectively avoided impacts to the INTG TEC by ensuring the design avoided these areas as much as possible. Subsequent targeted INTG surveys in spring 2024, ensured that all areas of INTG proposed to be impacted have been surveyed in detail, resulting in accurate condition class assessment. This resulted in more refined avoidance once classification against the INTG TEC Condition Class Criteria had been undertaken.
Alignment with existing infrastructure	The Project Area has been sited to align wherever practicable with existing cleared areas including roads, infrastructure and cropped land. If roads or electrical cables are required to cross large patches of Lomandra Grassland to access WTGs, they have been placed in the narrowest (i.e. least impact) area. In some cases, alternative access track routes appear available, however, constraints associated with electrical cabling and distance from the substation and BESS, mean that alternative routes are not technically feasible unless access tracks and cables are constructed separately. As cables have been designed to align within temporary clearance areas of existing access tracks, to minimise clearance, the overall impact on native vegetation, as well as fragmentation, is reduced in these instances.	High – Neoen has investigated design measures to minimize impacts in unavoidable locations. Neoen further demonstrated ongoing commitment to application of the mitigation hierarchy in August 2025, when a further improvement was implemented by rerouting an access track. Additional reductions were also made to Class C INTG at several other locations in the WF and OTL. Approximately 82.95 ha (46.24 ha permanent, 36.71 ha temporary) (or ~15.45%) of the total impact area occurs in non-native vegetation including: • 36.31 ha of existing roads or other clearance. • 28.85 ha of cropped land. • 17.73 ha of exotic pasture.
	Aligning electrical layout with temporary footprint associated with existing roads and proposed access tracks.	High – approximately 8.44 ha of INTG habitat avoided through this method. Note: not directly comparable due to the maturity of the design.
	Utilising existing access track infrastructure for Goyder South Wind Farm OTL to reduce access track requirements for GNWF OTL.	Moderate - 0.72 ha of INTG (Class C) avoided using this method.
Non-conventional stringing methods	Removal of stringing corridor in areas of high value MNES habitat through application of non-conventional stringing methods (i.e. helicopter stringing).	High - approximately 3.02 ha of INTG (Class C) avoided through this method.
CONSTRUCTION		
Construction Environmental Management Plan	A comprehensive document with multiple associated sub-plans which aim to avoid or minimise indirect impacts from construction such as through dust emissions, erosion, altered hydrology and general site matters. Includes measures for spatial data system to minimise the chance of unauthorised or incorrect clearance areas. Specific measures outlined below.	High - Indirect impacts effectively avoided.

Avoidance / Mitigation Measure	Description	Effectiveness
	INTG TEC outside of the approved clearance area (all condition classes) to be clearly defined as an ecologically sensitive area of detailed maps and spatial data applications supplied to construction contractors.	High – direct impacts minimised, indirect impacts effectively avoided.
	During construction, implement weed hygiene practices including vehicle checks and washdowns as required on vehicles or plant entering the construction site.	High – indirect impacts effectively avoided.
	During construction, undertake internal quarterly weed surveillance monitoring targeting Weeds of National Significance and Declared weed species, with follow up controls required for identified weed outbreaks. Detailed annual monitoring by external ecological consultant.	High – indirect impacts effectively avoided.
INTG Management Plan	Specific document intended as a sub-plan of CEMP which details procedures to further avoid as well as minimize direct impacts and mitigate potential indirect impacts to INTG. Including but not limited to: • Reduced speed limits (25 km per hr within 50 m of Class B INTG, and max 40 km per hour elsewhere) • Clearly delineate avoidance areas and ecological no-go zones • Unexpected finds procedure (i.e. stop work) • Detailed site-specific inductions for all staff and contractors related to INTG TEC, its legislative significance, potential impacts and management measures. • detailed fact sheets at designated locations throughout operations and maintenance facilities and site offices. • Toolbox meetings with INTG highlighted. • Weed control in accordance with minimum disturbance techniques.	High - direct impacts minimised. Indirect impacts effectively avoided.
Pre-clearance Checks	Pre-clearance checks in all areas of Project Area which contain INTG, with the aim to identify locations in which micro siting may effectively reduce impacts.	Moderate - Allows for micro siting to further minimise impacts and ensures any unexpected finds are reported and managed.
Micro-siting infrastructure	Pre-construction micro siting surveys: Prior to commencing construction work (such as, but not limited to, clearing and grubbing and excavation) within Class B and Class C INTG TEC, the head construction contractor will work with specialist advisors (i.e. ecologists) to undertake a micro-siting process to micro-site (relocate) infrastructure to avoid and/or minimise impacts to Class B and Class C INTG TEC, where possible. No construction will commence until approval has been provided in accordance with a dedicated Permitting System.	No net increase in impact to INTG. Micro siting will only be considered if it reduces impact on MNES.
Rehabilitation	The area of temporary clearance in INTG will be rehabilitated using best practice methods, as soon as practicable following disturbance in accordance with the method outlined in the INTG	High – 5.02 ha (58.44 %) of disturbed INTG will be rehabilitated following construction.

Avoidance / Mitigation Measure	Description	Effectiveness
	MP (Umwelt, 2025b). Areas of temporary disturbance are included in state and federal approvals to ensure that any offsets are above and beyond what is required to achieve a net environmental gain for the TEC.	
OPERATION		
Operational Environmental Management Plan	Management measures enforced to ensure no unforeseen direct or indirect impacts occur to INTG during the operational phase of the GNWF. Includes weed management, speed limits and rehabilitation monitoring.	Ensures direct impacts to INTG during operational works are avoided and indirect impacts are minimised through appropriate management measures.
EPBC Offset	EPBC Offset provides net gain for INTG in the region. Aim to rehabilitate and improve existing areas of INTG and implement formal protections to secure and improve in perpetuity.	Provides measurable conservation gain for INTG.
Monitoring	Areas of temporary clearance will be monitored annually, in accordance with the method outlined in the INTG MP (Umwelt, 2025b). To assess trajectory of rehabilitation and to identify if any triggers for further action (adaptive management) are identified.	High – ensures that rehabilitation of 5.02 ha of temporary impact to INTG (all classes) is on positive trajectory to return to original condition (or better).
DECOMMISSIONING		
Reassessment and further surveys	To be developed at time of decommissioning. Likely to include targeted INTG surveys, Significant Impact Assessment (under relevant legislation and guidelines at the time of decommissioning) and approvals, if required.	Follows regulatory process relevant at the time of impact.

3.3.3 Residual Significant Impact on INTG

While Project infrastructure has specifically been designed and/or located to avoid impact to INTG as much as possible, assessment of current Project design information, specifically the Disturbance Footprint, has determined that the Project will directly impact (clear or remove) up to 6.14 ha of Class B INTG TEC, based on the Disturbance Footprint, noting that this is a worst-case assessment of impacts and efforts to reduce this through further design refinements will occur. This 6.14 ha impact to Class B INTG consists of permanent impact of up to 2.43 ha and temporary impact of up to 3.72 ha, as summarised in **Table 3.7**. A summary of the individual INTG patches impacted by the GNWF Project is provided in **Table 3.8**.

This is the worst-case assessment of impacts expected and through ongoing design refinements, Neoen will seek to further reduce these impacts. A Development Envelope (200 m buffer around Disturbance Footprint) is proposed to allow further refinement of the design and application of the mitigation hierarchy to avoid and minimise impacts to areas where INTG occurs.

Table 3.7 Residual Significant Impact to Class B INTG Associated with the GNWF Project

Project Element	Permanent Impact (ha)	Temporary Impact (ha)	Total Impact (ha)	Stage 1 Total (ha)	Stage 2 Total (ha)	Comments
WF	2.43	3.72	6.14	3.99	2.15	Areas temporarily cleared will be rehabilitated as outlined in the INTG MP (Umwelt, 2025b) following clearance required for construction.
OTL	0.00	0.00	0.00	0.00	0.00	No impacts to INTG along OTL, as all Lomandra Grassland in the alignment was classified as Class C which does not meet the criteria for listing as a TEC.

Table 3.8 Summary of Individual INTG (Condition Class B) Patches Impacted by the GNWF Project

Patch ID	INTG Assessment Site	Total Patch Size (ha)	Area Impacted (ha)	Approximate Area Remaining Post Impact (ha)	% of Patch Impacted	Diversity of Native Species (min)	Broad-leaved Herbaceous Species[2]	Perennial Grass Species (min)
8	LOM10	116.32	0.13	116.19	0.11%	16	2	4
24	LOM16	12.84	0.01	12.83	0.08%	21	7	7
25	A6f (BAM)	99.94	1.92	98.02	1.92%	11	4	4
27	LOM2	4.32	0.02	4.3	0.46%	12	4	1
29	A6f (BAM)	324.61	1.09	323.52	0.34%	11	4	4
30	LOM1	0.69	0.13	0.56	18.84%	20	4	5
32	LOM17; LOM18	527.59	2.40	525.19	0.45%	19; 20 (Ave: 20)	3; 3 (Ave: 3)	4; 10 (Ave:7)
49	LOM6; LOM23	232.79	0.38	232.41	0.16%	17; 17 (Ave: 17)	6; 7 (Ave 7)	5; 3 (Ave: 4)
51	D6b (BAM)	2.22	0.08	2.14	3.60%	23	12	3
		Total: 1,321.33	Total area impacted = 6.14 ha			Average of all Patches = 16.8	Average of all Patches = 5.2	Average of all Patches = 4.3

Source: (Umwelt, 2025e)

3.3.4 INTG Habitat Quality at the GWNF Impact Site

Habitat quality at the GNWF Impact Site has been assessed in accordance with the *How to Use the Offsets assessment Guide* (DSEWPC undated). The key ecological attributes of INTG, summarised in **Section 3.2,** have been used to help determine the overall habitat quality score of the impact areas, in relation to the three habitat quality components as outlined in DSEWPC (undated), site condition, site context and species stocking rate. Weighting has been applied to the three habitat quality components as follows:

- Site condition (5 out of 10): condition directly reflects vegetation structure, diversity and threats which influences ecological function and resilience. This criterion has been assigned the highest weight because it most directly affects habitat quality and restoration or decline potential.
- Site context (3 out of 10): connectivity and landscape position influence long-term viability however its influence is slightly less direct than condition and less variable, justifying a moderate weight of 3.

- Site stocking rate (2 out of 10): Species stocking rate is important but overlaps with site condition and has less influence on habitat function. It mainly provides regional context rather than direct ecological resilience, so a lower weight of 2 is appropriate.

The habitat quality score for the impact areas has been assigned a 6 (out of 10), explained further in **Table 3.9.**

Table 3.9 Habitat Quality Score and Justification for Impacted INTG

Component	Questions / Consideration	Impacted Areas (up to 6.14 ha)
Site condition	What is the structure and condition of the vegetation on the site?	The overall quality of INTG at the impact site is fair to moderate. The average Vegetation Condition Score obtained from BAM survey sites is 35.95 (of a maximum of 80, representing a site at the pre-European Benchmark condition) (Umwelt, 2025g; Umwelt, 2025e). Strong grazing impacts are observed across most of the site, including grazing of *Lomandra* spp. tussocks and perennial grass tussocks. A moderate to high diversity of native herbaceous flora species have been detected across the site, however, where present these generally occur sparsely and in low abundance. The BAM scores take into account the vegetation condition on a landscape scale (when compared to the targeted *Lomandra* surveys), and thus align with a fair to moderate site condition rating. No Class A INTG is being impacted by the Project. The condition of the vegetation at the site is influenced by historical clearance and fragmentation for agriculture, a long history of agricultural grazing of sheep and cattle, weed presence, fragmentation, low resilience to drought conditions and wildfire. Furthermore, impacted areas of INTG are largely restricted to the edges of existing roads required to be widened for access. These areas are already somewhat fragmented and subject to minor edge effects, however this is not expected to disrupt ecological community function. One intact patch of Class B INTG is being intersected by the disturbance footprint, required due to accessibility and technical considerations around electrical cabling.
	What is the diversity of relevant habitat species present (including both endemic and non-endemic)?	A total of 72 native flora species were recorded across 23 targeted survey sites (Umwelt, 2025e). This included five species listed as threatened under the South Australian *National Parks and Wildlife Act 1972*. Diversity of native species within the Class B patches of INTG proposed to be impacted includes: • Average number of native plant species per site: 16.8. • Average number of broad-leaved herbaceous species: 5.2. • Average number of perennial grass species: 4.3. These assessments are on the lower end of meeting the criteria for Class B INTG (**Table 3.2**), where a minimum of 15 native plant species are required, >3 broad leafed herbaceous species and >4 perennial native grass species. BAM Sites, assessed under the *Native Vegetation Act 1991* are comparable to Benchmark Communities. Across all INTG sites (11), the average site recorded 14 native species and 8 weed species per site. A total of 54 weed species have been detected in *Lomandra* survey sites, including 7 weeds listed as Declared under the *Landscape South Australia Act 2019*. This included *Echium plantagineum* (Salvation Jane) which was common across most sites. Common agricultural pasture weeds were also present across all sites.
	What relevant habitat features are on the site?	6.14 ha of Class B INTG is within the Disturbance Footprint. Features relevant to the condition score of the site include that the land is currently utilised for and has a long history of agriculture including for cropping and grazing of livestock which has introduced additional threatening processes such as weed invasion, over abundant native

Component	Questions / Consideration	Impacted Areas (up to 6.14 ha)
		herbivores (due to watering points) and decreased resilience to climate change. A total of 1,931.24 ha of Lomandra Grassland (all condition classes) is mapped within the Project Area, further divided into 51 patches (divided by landholder boundaries). Nine of these patches are being impacted by the Disturbance Footprint. Those nine patches total 1,315.17 ha, of which 6.14 ha is proposed to be impacted by the Project, equivalent to 0.47%. Of the patches being impacted, all are subject to existing disturbance including grazing (all), being edged or divided by public roads (29, 32, 42, 51) or farm tracks (8, 24, 25, 27, 30), surrounded or edged by crop (51, 49, 25) and/or fragmented by a network of minor farm tracks (all).
	Site condition score (5):	**3** The INTG TEC at the impact site is in fair to moderate condition, supporting a score of 3 out of 5. BAM surveys recorded an average Vegetation Condition Score of 35.95/80 (≈45% of benchmark). Grazing impacts are evident, and weed invasion is significant, with 54 species including seven Declared weeds. Native species diversity is moderate, averaging 16.8 species per site and meeting Class B criteria, with five threatened species recorded. Impacted areas are mostly road edges already disturbed, though one intact Class B patch is intersected. Historical clearance, long-term grazing, and associated threats further limit condition, but moderate diversity and intact patches prevent a lower score.
Site context	What is the connectivity with other suitable/known habitat or remnants?	The patches of INTG TEC proposed to be impacted are part of larger remnant patches within the GNWF, divided in some locations by minor roads or farm access tracks, or by tracts of exotic pasture, cropped land or derived native grasslands. However, across the Project Area, it is likely that these large patches were historically connected prior to vegetation clearance and agricultural activities. One patch proposed to be impacted is part of a small fragment (~2.2 ha) remaining on rocky ground, surrounded by crop and considered to be fragmented from other patches due to historical vegetation clearance and agricultural activities, and not connected to other remnants. In the broader context of the landscape, the range of INTG occurs in an area that has been intensively cleared for agriculture. Few areas of INTG are formally protected under conservation covenants. One of these occurs within the Project Area, Mokota Conservation Park, however it is not proposed to be impacted by the Project. Mokota CP has existing roads on two sides, including White Hill Road to the north, and Gum Hill Rd (extension) on the south. A minor farm track traverses the east of the site, setback from the boundary on rural land. GNWF proposed access tracks have been sited to align with existing roads to minimise direct and potential indirect impacts.
	What is the importance of the site in relation to the overall species population or the occurrence of the community?	As outlined in the INTG TEC Recovery Plan (Turner, 2012), the INTG TEC occurs only in South Australia, and tussock grasslands dominated by *Lomandra multiflora* subsp. *dura* and/or L. *effusa* occur mainly in the Flinders-Lofty Block Bioregion (Neagle 2008 in Turner, 2012), with smaller occurrences in the Kanmantoo, Eyre-Yorke Block and Murray Darling Depression Bioregions (Department for Environment and Heritage 2005 in Turner, 2012). The site occurs within the central area of the reported range of the community, and all qualifying patches are critical to the TEC's survival, however, the impact areas are Class B and occur in a landscape that has been extensively cleared, and actively managed for agriculture, reducing its relative contribution. Further to the south on more arable land, patches are likely to be smaller and more fragmented, while to the north, larger intact patches remain where rocky ground covering and drier conditions have prevented intensive cropping or agriculture. The land use for agriculture and its central location within the broader distribution of INTG supports a moderate score.

Component	Questions / Consideration	Impacted Areas (up to 6.14 ha)
		Given the above, and as the INTG TEC Recovery Plan (Turner, 2012) states that all sites that meet the criteria for the listed community should be considered habitat critical to the survival of the ecological community, the patches of Class B INTG TEC that are proposed to be impacted are considered to be moderately to highly important in relation to the overall occurrence of the community.
	What threats occur on or near the site?	The site is on land used for agricultural grazing and thus under direct threat from current and future potential land management, exacerbated by the threat of climate change. It is likely to be in a stable or declining condition under its current management, without intervention, reducing its potential long-term contribution to the community. The site is subject to existing weed invasion (including up to 14 identified Declared weeds), trampling by livestock, overgrazing and erosion. Other threats that currently occur on or near the impact sites include potential changes in land use (e.g., potential for inappropriate grazing), weed invasion, exotic animals and overabundant native species, new infrastructure developments (wind farm), ongoing ecological stresses due to past clearance, fragmentation and management changes, and climate change.
	Site context score (3):	**2** The site context of the impacted INTG TEC patches is considered moderate (2/3). While the patches occur within larger remnants and the central range of the community, connectivity across the landscape is generally low due to historical clearance and ongoing agricultural use, making this site typical of the regional context rather than uniquely isolated. The impacted areas are Class B and intersected by minor roads and tracks, which slightly reduce ecological function. Although all qualifying patches are critical to the survival of the ecological community, the site's agricultural setting and moderate condition limit its relative contribution compared to higher-quality remnants. The site faces multiple threats, including grazing, weed invasion (up to 14 declared species), erosion, and potential infrastructure development, compounded by climate change. These factors support a moderate level of ecological importance and connectivity, justifying a site context score of 2 out of 3.
Species stocking rate	What is the presence of the species on the site? (i.e. confirmed / modelled).	INTG has been confirmed within the Disturbance Footprint and broader Project Area during field survey. Mapping has confirmed up to 1,932.13 ha of INTG (all conditions) within the GNWF, including 18.02 ha of Class A INTG, 1,480.59 ha of Class B INTG and 308.00 ha of Class C INTG (not the TEC). This is from an estimated 50,000 ha of Lomandra Grassland (Department for Transport, Urban Planning and the Arts, 2000; Turner, 2012).
	What is the density of species known to utilise the site?	1,931.24 ha of INTG (all classes), represents approximately 12.34% of all native vegetation mapped in GNWF Project Area. This represents the mapped area of INTG and comprises a matrix of INTG patches which may be discontinuous, punctuated by areas of native or non-native grassland. Although fragmented in places, a number of very large contiguous patches occur, and in their entirety, is likely to represent one of the larger, more contiguous areas of remaining INTG. Regarding species known to utilise the site, on average, the sites were on the lower end of the diversity score for number of native species and broad leaved herbaceous plants. However, five State listed threatened species have been detected within the targeted survey sites. These threatened species (and others) have also been detected in other vegetation associations more broadly across the Project Area and are not unique to this vegetation association.
	What is the role of the site population in regard to the overall species population?	The INTG TEC Recovery Plan states that there is likely to be approximately 5,000 ha of INTG TEC meeting the criteria for the listed TEC (Turner, 2012), from an estimated 50,000 ha of all condition classes in the region. A total of 8.59 ha of INTG is proposed to be impacted, with 6.14 ha comprising Class B, or the listed TEC. The 6.14 ha of Class B INTG TEC

Component	Questions / Consideration	Impacted Areas (up to 6.14 ha)
		proposed to be impacted is located within the Flinders-Lofty Block Bioregion. No INTG TEC was recorded in the Murray Darling Depression Block Bioregion portion of the Project Area and represents 0.12% of the TEC reported to be remaining in the region. The overall impact of 8.59 ha represents 0.017 % of the estimated remaining INTG (all classes) in the region. As stated in the INTG TEC Recovery Plan (Turner, 2012), all sites that meet the criteria for the listed community should be considered habitat critical to the survival of the ecological community.
	Species stocking rate (2) score:	**1** INTG is confirmed within the Disturbance Footprint and broader Project Area, with mapping identifying 1,932 ha of Lomandra grassland (all condition classes), including 1,480 ha of Class B INTG TEC. This represents one of the larger, more contiguous areas of remaining INTG, although patches are fragmented in places. Surveys recorded five State-listed threatened species, but overall species diversity was on the lower end of Class B criteria and these threatened species occur elsewhere in the site. The 6.14 ha of Class B INTG proposed to be impacted equates to 0.12% of the estimated remaining TEC and 0.017% of all Lomandra grassland in the region. While the site plays a role in supporting the community within its core bioregion, its moderate diversity and small proportional impact justify a score of 1 out of 2.
Habitat Quality Score:		**6**

4.0 [redacted] Offset Site and INTG Offset Area

4.1 Location and Site Context

[redacted]

Table 4.1 [redacted] Offset Site Administrative Details

Owner / Ownership	[redacted]		
Manager	[redacted]		
Address	[redacted]		
Local Government Area	[redacted]		
Landscape Management Region	[redacted]		
Hundred	[redacted]		
Title Details	Title	Parcel	Area
	[redacted]	[redacted]	[redacted]
Property Area (ha)			[redacted]

4.1.1 Current and Historical Land Use

[redacted]

4.1.2 Landscape and Interim Biogeographical Regionalisation for Australia

[redacted]

Table 4.2 Land Systems Within the [redacted] Offset Site

Land System	Description
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

Land System	Description
[redacted]	[redacted]

4.1.3 Climate

[redacted]

4.1.4 Flora and Fauna

[redacted]

Table 4.3 Vegetation Associations Recorded Onsite

VA Code	Description	Threatened Ecological Community	Total Area in [redacted] Offset Site (ha)
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
Total			[redacted]

[redacted]

4.1.4.1 Flora

[redacted]

4.1.4.2 Fauna

[redacted]

4.1.4.3 Threatened Ecological Communities

[redacted]

[redacted]

[redacted]

[redacted]

Table 4.4 Summary of Condition Class at INTG Survey Sites at [redacted] Sites Shaded in Blue Indicate Sites Within the Proposed INTG Offset Area, with Other Sites Spread Throughout the [redacted] Offset Site. Grey Text Indicates Site Outside of Offset Site.

Survey Site No. (Paddock)	Description	Patch Size (ha)	Native Species Diversity	Non-native Species	Count of Broad-leafed Herbaceous Species	Count of Perennial Native Grass Species	Count of Perennial Native Grass Tussocks Along 50 m Transect	% Lomandra Cover	Condition Class	Comments
LOM1 (R2)	*Lomandra effusa* Grassland	5.69	22	12	8	7	>1m (90)	10-15%	B	Cattle and kangaroo scat, but low evidence of current grazing pressure. Lomandra tussocks and *Maireana rohrlachii* previously grazed. Rocky surface covering with many spider burrows.
LOM2 (R6 /R5)	*Lomandra multiflora* Grassland	60.73	20	13	5	7	<1m (26)	30-40%	C (precautionary B)	Rocky surface covering; cattle and kangaroo grazing and scats observed; weedy with a low forb density. Lomandra pedestalled at base.
LOM3 (R5)	*Lomandra effusa* Grassland	1.44	19	14	8	5	>1m (57)	15%	B	Cattle and kangaroo grazing with scats and camps present, and erosion from cattle. Rocky surface covering.
LOM4 (R5)	*Lomandra multiflora* Grassland	2.12	20	14	5	8	<1m (35)	5-10%	C (precautionary B)	Heavy grazing of scattered *Allocasuarina verticillata*. Very rocky with sparse Lomandra
LOM5 (R11)	*Lomandra multiflora* Grassland	~3.37	20	12	6	8	<1m (31)	10%	C (precautionary B)	Grazing from cattle and kangaroos with old and fresh scats and tracks; rocky surface covering; high *Avena barbata* with patches of less exotic and more forbs. 20-40% native exotic understorey
LOM6 (R4/R8)	*Lomandra effusa* Grassland	11.93	20	14	10	6	>1m (131)	15-20%	B	20-40% native exotic understorey biomass.
LOM7 (R8)	*Lomandra effusa* Grassland	~14.31	20	13	4	8	<1m (31)	20%	C (precautionary B)	Shrubs previously modified by heavy grazing; Lomandra tussocks in poor condition with high dieback; *Avena barbata*, *Erodium* and *Echium*.

4.1.5 Site Selection and Suitability of the [redacted] INTG Offset Area

The [redacted] INTG Offset Area was initially selected for further investigation due to its proximity to GNWF Project, availability of potentially suitable habitat and market availability. The [redacted] INTG Offset Area provides a number of benefits including:

- Proximity to GNWF Project Area.
- Availability of suitable INTG patches, with opportunity for improvement through management.
- Potential for management by Third-party Providers with extensive experience in the region (Tiliqua Nature Reserve), including in INTG restoration.
- Amenability of existing landholder for purchase agreement.

As described in **Section 4.1.4.3**, the broader [redacted] Offset Site contains numerous patches of INTG of varying condition. The INTG Offset Area was selected due to the large size of the existing patch (>50 ha) and opportunity for improvement through management, specifically with the aim to improve the density of perennial native grasses to improve the condition class from C to B. Given the timing of the surveys and conditions at the time of the survey, it is considered highly likely that the condition class is more likely to align with B.

The suitability of the INTG Offset Area is further detailed in **Section 4.2** and **Section 4.4.**

4.1.6 Existing Threats

All of the known and/or potential threats identified in the INTG TEC Recovery Plan (Turner, 2012), summarised in **Section 3.2.4**, have the potential to threaten the INTG TEC Offset Area. However, all potential threats can be avoided and/or managed via implementation of specific management actions within this INTG OMP.

Existing threats (to INTG) at the [redacted] Offset Site are predominantly related to inappropriate management or changed management resulting in a worse outcome for INTG. The property has been subjected to historical livestock grazing of cattle. However, grazing activities have been intermittent, with irregular or no grazing since 2023 (pers. comm. S. Rowe via F. Hill, 21 November 2025). Surrounding areas have been utilised for dryland cropping. INTG is fragmented and patchy across the [redacted] Offset Site, with six fragmented patches occurring, varying in size from 1.4 ha to over 60 ha. These patches are interspersed with grassland in poor to fair condition, including in the east where *Maireana rohrlachii* forms a dominant low shrub layer over the grassland.

Currently, grasslands including Lomandra grasslands within the [redacted] Offset Site are in poor to fair condition, with a high proportion of invasive exotic grasses degrading remnant grassland habitat as well as perennial herbaceous and woody weeds.

Other potential threats to the site, which are somewhat outside of the control of land management, include climate change, which may result in a drier and hotter environment. Given that [redacted] Offset Site and INTG Offset Area is within the current mid-range of the INTG distribution, it is unlikely that this area will be impacted in the immediate future. However, with continued lack of grassland management it is likely that exotic species will continue to dominate resulting in reduced cover of perennial native grasses, and thus reduced soil stability and water retention, leading to exposed dry bare areas of ground during hot summer months. Management of the Offset Site/Area will aim to mitigate potential impacts of climate change through improving grassland condition, and thus soil condition and water retention ability, making the grassland more resilient to climate change.

4.2 INTG Quality at the [redacted] INTG Offset Area

Habitat quality within the [redacted] INTG Offset Area has been assessed in accordance with the *How to Use the Offsets assessment Guide* (DSEWPaC, Undated). The key ecological attributes of INTG summarised in **Section 3.2** and are listed in **Section 3.3.4**.

[redacted]

Table 4.5 Habitat Quality Score and Justification for [redacted] INTG Offset Area

Component	Questions / Consideration	Impacted Areas (up to 6.14 ha)
Site condition	What is the structure and condition of the vegetation on the site?	[redacted]
	What is the diversity of relevant habitat species present (including both endemic and non-endemic)?	[redacted]
	What relevant habitat features are on the site?	[redacted]

Component	Questions / Consideration	Impacted Areas (up to 6.14 ha)
		[redacted]
	Site condition score (5):	[redacted]
Site context	What is the connectivity with other suitable/known habitat or remnants?	[redacted]
	What is the importance of the site in relation to the overall species population or the occurrence of the community?	[redacted]

Component	Questions / Consideration	Impacted Areas (up to 6.14 ha)
		[redacted]
	What threats occur on or near the site?	[redacted]
	Site context score (3):	[redacted]
Species stocking rate	What is the presence of the species on the site? (i.e. confirmed/modelled).	[redacted]
	What is the density of species known to utilise the site?	[redacted]
	What is the role of the site population in regard to the overall species population?	[redacted]
	Species stocking rate (2) score:	[redacted]
Habitat Quality Score:		[redacted]

4.2.1 Offsets Assessment Guide for INTG Offset Area

The OAG has been used to determine the area required to offset the residual direct and indirect impact (6.14 ha) to INTG, including 3.99 ha for Stage 1 and 2.15 ha for Stage 2. The OAG presented in **Table 4.6** is based on the GNWF (impact site) quality score (**Table 3.9**) and the INTG Offset Area quality score (**Table 4.5**), with justifications for the remaining criteria applied to the assessment.

Table 4.6 INTG OAG Inputs for the INTG Offset Area

Parameter	Value	Reasoning
Impact Calculation		
Protected matter attribute		
Area of Impact (ha)		
Impact area habitat quality (scale of 0–10)		
Total quantum of impact (ha)		
Offset Calculation	**INTG Offset Area**	**Reasoning**
Protected matter attribute		
Offset		
Risk-related time horizon (max. 20 years)		
Time until ecological benefit		
Start area (ha)		

Parameter	Value	Reasoning
Start quality	[redacted]	[redacted]
Future Quality with Offset	[redacted]	[redacted]
Confidence in results (quality)	[redacted]	[redacted]

Parameter	Value	Reasoning
		[redacted]
Future Quality without Offset	[redacted]	[redacted]
Risk of loss without offset	[redacted]	[redacted]
Risk of loss with offset	[redacted]	[redacted]

Parameter	Value	Reasoning
Confidence in result (risk of loss)	[redacted]	[redacted]

4.3 Statement of Expected Outcomes

The expected outcomes for the INTG Offset are:

- Formal protection of the [redacted] INTG Offset Area for the duration of the action. However, protection will be in perpetuity as the INTG Offset Area is proposed to be protected via a Heritage Agreement (as outlined in **Section 5.2.2**) (pending approval).
- Management of the INTG TEC Offset Area in accordance with a site-specific [redacted] INTG Offset Management Plan (this Plan) for the duration of the action to maintain and increase (where possible) the condition/quality of the INTG Offset Area.
- Monitor INTG condition within the [redacted] INTG Offset Area.

Maintenance and/or an increase in the condition/quality of the INTG Offset Area will involve maintenance and an increase (where possible) in the following (which are used to determine condition class for INTG TEC, in accordance with EPBC Act Policy Statement 3.7):

- diversity of native species
- number of broad-leaved herbaceous species in addition to identified disturbance resistant species
- number of native perennial grass species (excluding *Lomandra* species)
- perennial native grass tussock density.

However, in addition to the above, maintenance and an increase (where possible) in the condition/quality of the INTG TEC Offset Area will also involve a decrease in the diversity and coverage of weeds.

The expected outcomes outlined above directly align with and will contribute to the following specific objectives of the INTG TEC Recovery Plan (Turner 2012):

1. To maintain or improve the condition of remnant INTG
2. To increase the area of INTG secured and managed for conservation.

4.4 EPBC Offsets Policy

This Plan has been prepared in accordance with the EPBC Offsets Policy (DSEWPaC, 2012a).A review of the proposed Offset against the eight overarching Offset Principles has been undertaken and is presented in **Table 4.7**.

Table 4.7 Review of Proposed INTG Offset against EPBC Offset Principles

Offset Principle	Details / Commentary	Comments on How the Proposed Offset is Consistent with the Offset Principle
1. Suitable offsets must deliver an overall conservation outcome that improves or maintains the viability of the aspect of the environment that is protected by national environment law and affected by the proposed action.	Offsets must directly contribute to the ongoing viability of the protected matter impacted by the proposed action and deliver an overall conservation outcome that improves or maintains the viability of the protected matter as compared to what is likely to have occurred under the status quo, that is if neither the action nor the offset had taken place. Offsets should be tailored specifically to the attribute of the protected matter that is impacted in order to deliver a conservation gain. For impacts on habitat for threatened species, migratory species and threatened ecological communities, any direct offset must meet, as a minimum, the quality of the habitat at the impact site.	Implementation of the Offset Area is expected to achieve an overall conservation outcome that as a minimum maintains or improves the condition of INTG within the INTG Offset Area. This OMP has been specifically developed to ensure the effective management of the Offset Area, to ensure the desired outcomes are met. Active management of the Offset Area will ensure that the quality of habitat and vegetation condition will be maintained or improved. Management of the Offset Area will leverage knowledge and experience from key species experts and organisations in the region that are actively managing INTG to ensure optimal outcomes for the TEC.
2. Suitable offsets must be built around direct offsets but may include other compensatory measures.	Offsets must be built around direct offsets, which should form a minimum of 90% of the total offset requirement. Other compensatory measures may satisfy up to a maximum of 10% of the total offset requirement. Where possible, an offset should address key priority actions outlined for the impacted protected matter in any approved recovery plans, threat abatement plan, conservation advice, ecological character description or approved Commonwealth management plan. Higher priority actions are preferred to lower priority actions. **Tenure** The securing of existing unprotected habitat as an offset only provides a conservation gain if that habitat was under some level of threat of being destroyed or degraded, and as a result of offsetting will instead be protected in an enduring way and actively managed to maintain or improve the viability of the protected matter. The tenure of the offset should be secured for at least the same duration as the impact on the protected matter arising from the action, not necessarily the action itself. Legal mechanisms, such as conservation covenants, exist in each state and territory to enable protection of the land that is set aside for environmental purposes on a permanent or long-term basis. There is also provision under Part 14 of the EPBC Act for the Minister to enter into a conservation agreement with a third party for the conservation of a protected matter. An EPBC Act conservation agreement is a flexible instrument that can be used for implementing a range of management activities to benefit a	The INTG offset will be entirely comprised of a direct on ground offset. The Offset will address key priority actions for INTG outlined in the Recovery Plan (Turner, 2012) by assisting in improving the long-term viability of INTG. In particular, the INTG Offset will contribute to the following goals from the Recovery Plan: • To maintain or improve the condition of remnant INTG. • To increase the area of INTG secured and managed for conservation. No threat abatement plan has been identified as relevant for INTG. **Tenure** The current land tenure of the proposed Offset Area is freehold. It is also expected to remain to be freehold into the future. The Project Owner (Neoen) will purchase the Offset Area outright, and engage an Accredited Third Party Provider to manage the proposed Offset Area.

Offset Principle	Details / Commentary	Comments on How the Proposed Offset is Consistent with the Offset Principle
	protected matter, such as fencing off important habitat areas, undertaking weed and feral animal control or the establishment of compensatory habitat.	
3. Suitable offsets must be in proportion to the level of statutory protection that applies to the protected matter.	Due to the higher risk involved with protected matters of greater conservation status, the offsets required for those protected matters with higher conservation status must be greater than those with a lower status. For listed threatened species and ecological communities, this is calculated in the Offsets assessment guide by using International Union for Conservation of Nature data on the probability of annual extinction for different categories of threatened species.	The proposed Offset is considered to be in proportion to the level of statutory protection that applies to INTG as the OAG has been used to calculate an estimate of the direct offset area required for the maximum disturbance that may occur under the proposed layout for INTG (6.14 ha) (**Section 3.3.4** and **4.2.1**).
4. Suitable offsets must be of a size and scale proportionate to the residual impacts on the protected matter.	Offsets must be proportionate to the size and scale of the residual impacts arising from the action so as to deliver a conservation gain that adequately compensates for the impacted matter. The size and scale of an offset required for each impact is determined by taking account of a number of different considerations that are discussed in the EPBC Offsets Policy, including the: • level of statutory protection that applies to the protected matter • specific attributes of the protected matter, or its habitat, being impacted • quality or importance of the attributes being impacted with regard to the protected matter's ongoing viability • permanent or temporary nature of the residual impacts • level of threat (risk of loss) that a proposed offset site is under • time it will take an offset to yield a conservation gain for the protected matter • risk of the conservation gain not being realised.	A number of different considerations outlined in the EPBC Offsets Policy have been taken into account and entered into the Offset Assessment Guide (where appropriate), including: • Level of statutory protection to INTG (Critically Endangered). • Specific attributes of INTG being impacted by the infrastructure footprint: 6.14 ha of Class B INTG with a quality score of 6 (out of 10). • Quality or importance of the INTG being impacted with regard to INTG ongoing viability (6 out of 10). • Permanent or temporary nature of the residual impacts (operational life of the GNWF Project is expected to be approximately 25–30 years.) • Level of threat (risk of loss) that the proposed offset site is under (which is considered to be a low to moderate risk of loss without offset measures in place). • Time it will take the proposed offset (INTG Offset Area) to yield a conservation gain for INTG (time until ecological benefit of up to 10 years). • Risk of conservation gain not being realised (which is considered to be a low 2% as confidence in result is considered to be 90%). Therefore, the proposed direct offset (INTG Offset Area of 44.5 ha total for Stage 1 and Stage 2, comprising 29 ha and 15.5 ha respectively) is considered to be proportionate to the size and scale of the residual impacts on INTG arising from the action.

Offset Principle	Details / Commentary	Comments on How the Proposed Offset is Consistent with the Offset Principle
5. Suitable offsets must effectively account for and manage the risks of the offset not succeeding.	The use of offsets as a compensatory measure through the assessment and approval process involves two levels or risk. The first, and highest, level of risk is that the impact on the protected matter will be too great and that an offset will not be able to compensate for the impact. The second level of risk relates to whether individual offsets are likely to be successful in compensating for the residual impacts of a particular action over a period of time. It is this risk that is considered in determining a suitable offset and has direct bearing on the scale of the offset required. The magnitude of a suitable offset will increase proportionately to the risk posed to the protected matter by the proposed action. In general terms, direct offsets present a lower risk than other compensatory measures, as they are more likely to result in a conservation gain for a protected matter.	The proposed INTG Offset Area will be implemented and managed in accordance with this OMP, which includes a monitoring program (**Section 6.0**) which identifies potential risks, as well as associated contingency measures for the successful management of the proposed Offset Area. The OMP involves an adaptive management approach where monitoring will measure progress and allow for timely identification of any changes required to management measures (for example the grazing regime), which will help to ensure that the Offset Area is successful. 100% of the INTG Offset is a direct offset (i.e. the on-ground Offset Area), which is considered by the EPBC Offsets Policy to present a lower risk than compensatory measures, as it is more likely to result in a conservation gain. Furthermore, the proposed Offset is proposed to be implemented as soon as possible prior to commencement of the action, which is also considered to reduce the risk profile of the offset through providing a conservation gain at an earlier point in time.
6. Suitable offsets must be additional to what is already required, determined by law or planning regulations or agreed to under other schemes or programs.	Offsets must deliver a conservation gain for the impacted protected matter, and that conservation gain must be new, or additional to what is already required by a duty of care or to any environmental planning laws at any level of government. It is important to note however that this does not preclude the recognition of state or territory offsets that may be suitable as offsets under the EPBC Act for the same action. Whether or not an offset is considered to be additional will be assessed on a case-by-case basis. Links with state and territory approval processes It is important to note that while there are many similarities between the environmental laws of the states and territories and the EPBC Act, they also differ in a fundamental way. The EPBC Act focuses on protecting MNES and only protects the broader environment in certain circumstances, while state and territory laws usually protect the environment as a whole (for example air quality, noise pollution, water quality, biodiversity, and heritage values). These differing legislative objectives result in different assessment processes and can result in different offset requirements. As a consequence, some proponents may need to provide offsets under both state or territory laws and the EPBC Act for the same action. A state or territory offset will count toward an offset under	The GNWF Project is required to achieve a SEB in accordance with the SA *Native Vegetation Act 1991*, for clearance of native vegetation. The [redacted] Offset Site will be purchased to provide offsets for INTG, PBTL and SEB. However, the INTG OMP proposes specific additional actions (such as revegetation) to improve condition of grassland habitats in addition to a grazing management regime. Furthermore, the INTG Offset Area will not be included as part of the SEB offset or management plan as indicated in **Figure 2.1.** No other environmental schemes or programs, for example stewardship funding from a program are currently applicable to the land parcels proposed to be used for the INTG Offset. Therefore, the INTG EPBC Offset will be additional to what is already required and/or determined by SA law or planning regulations (other offset requirements), and the PBTL Offset required by the EPBC Act.

Offset Principle	Details / Commentary	Comments on How the Proposed Offset is Consistent with the Offset Principle
	the EPBC Act to the extent that it compensates for the residual impact to the protected matter identified under the EPBC Act.	
7. Suitable offsets must be efficient, effective, timely, transparent, scientifically robust and reasonable.	Efficient and effective offsets are those that maintain or improve the viability of a protected matter through the sound allocation of resources. An offset should be implemented either before, or at the same point in time as the impact arising from the action. This timing is distinct from the time it will take an offset to yield a conservation gain for the protected matter, which may be a point in the future. Offsets must be based on both scientifically robust and transparent information that sufficiently analyses and documents the benefit to a protected matter's ecological function or values. This includes undertaking desktop modelling of offset benefits and conducting relevant field work as appropriate.	Implementation of the proposed Offset Area is considered to be a highly efficient, effective, timely, transparent, scientifically robust and reasonable offset for the following reasons: • The time until ecological benefit is 10 years, as while the Offset Area is proposed to be implemented as soon as possible prior to commencement of the action and the legal agreement will immediately secure the future management of the Offset Area, for the conservation of INTG, it may take up to 10 years for ecological benefit to be achieved. • The risk of loss (with offset) is only 0 % as the Offset Areas are proposed to be protected in perpetuity via execution of a Heritage Agreement; and will be actively managed in accordance with this site specific OMP. • Monitoring of the Offset Area, in accordance with this OMP, will provide scientifically robust data which will be used to identify any changes required to management measures (for example the grazing regime). • Monitoring reports will be provided to the Department and may also be uploaded to the GNWF Project's website for public viewing (desensitised) if appropriate.
8. Suitable offsets must have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced.	Offsets must be delivered within appropriate and transparent governance arrangements. Proponents, or their contractors, must report on the success of the offsets so that conditions of approval can be varied if the offsets are not delivering the desired outcome. Offset proposals will need to include clearly articulated measures of success that are linked to the purpose of the offsets and provide clear benchmarks about their success or failure. Annual reports will be required by the department and, where possible, will be made publicly available. Performance of offsets will be reviewed as part of the monitoring, compliance and audit program for all proposals considered under the EPBC Act.	This Plan, including the Offset Monitoring Program, clearly outlines the following: • The management responsibilities between the Project Owner and the land manager, as well as an ecological consultancy. • The ecological indicators to be monitored and a proposed monitoring methodology to audit the implementation of the management actions and identify any changes to management actions that might be required. • The reporting responsibilities, which include submission of a monitoring report to the Department. All environmental reporting and records will be available for auditing by the Department if required.

5.0 Offset Management

The expected outcomes of this Plan are detailed in **Section 4.3**. The management aspects to achieve the expected outcomes, addressed in this Plan include the following:

- Implementation of this Plan.
- Security mechanism, including securement and long-term protection of the [redacted] INTG Offset Area.
- Management of livestock and grazing regime.
- Weed and pest herbivore control.
- Fire prevention.
- Revegetation.
- Monitoring, reporting and adaptive management.
- Review and update of this Plan.

These management aspects and the management actions associated with them, are outlined in this section, while more detail is provided the sub-sections further below. The measurable outcomes, timeline and responsibility associated with each management action are also included in **Section 5.3**, **Section 5.3.8** and **Section 5** respectively.

Management actions associated with each management aspect will be implemented in accordance with the INTG TEC Recovery Plan (Turner 2012) and guided by best practice at the time based on expert knowledge and feedback.

The associated offset monitoring, evaluation, reporting and review schedule is addressed separately in **Section 6.0**.

5.1 Establishment and Implementation

The current land tenure of the [redacted] Offset Site is freehold and is expected to remain to be freehold into the future.

Neoen propose to enter into a legal agreement or contract with the landowner to secure land purchase agreements for the proposed offset property with timeframe optionality to allow for staging of the offset (as described in **Section 2.4**), and to allow for alignment with financial close of the respective stage of the Project. These contracts will be provided to DCCEEW once in place and will outline Neoen's exclusive right to purchase land during the defined period of the agreement.

Following a Financial Investment Decision by Neoen, the property will be formally secured (i.e. purchased), and a Heritage Agreement (HA) application will be submitted to the Native Vegetation Branch (NVB) for consideration and then commence registration of the HA with the South Australian Land Titles Office (Land Services SA). Neoen have agreed with DCCEEW that the site will be effectively secured to enable breaking ground at the GNWF Project for each respective stage, when the

[redacted] Offset Site is formally secured and the NVB has accepted the application for the HA over the relevant offset land and commences the process for registration of the agreement.

Neoen will engage an Accredited Third-party Provider to manage the land according to this Plan, thereby preventing occurrence of known and/or potential threats to the proposed [redacted] Offset Site, such as, but not limited to, potential changes in land use (including altered grazing regimes), weed invasion, exotic animals, use of pesticides, herbicides and fertilisers, wildlife poaching, new infrastructure and developments, and climate change (via adaptive grazing management) within the [redacted] PBTL Offset Area.

Table 5.1 Offset Management Summary

Option	Key Points	Description
Neoen Purchases Land and enters into Agreement with Accredited Third-party Provider: Neoen purchases a parcel of land from a willing landholder and places all or part of the area under a Heritage Agreement to be managed.	Heritage Agreement	Neoen will place the purchased land under a Heritage Agreement (**Section 5.2.2**).
	Offset Management Plan	The land will be managed in accordance with a detailed [redacted] INTG OMP (this Plan), with management actions to commence for each defined stage (Stage 1 and Stage 2) in line with the construction stages for GNWF.
	Third-party Management	An Accredited Third-party Provider will be engaged to implement the management, monitoring and reporting activities as specified in the [redacted] INTG OMP (this Plan). At their discretion, they may engage independent contractors to undertake portions of the work including monitoring and reporting.
	Neoen Oversight	Neoen will oversee the activities of the Accredited Third-party Provider to ensure compliance with the [redacted] INTG OMP (this Plan). At their discretion, Neoen may engage independent accredited ecological consultants to undertake any monitoring and reporting.

5.2 Security Mechanism

5.2.1 Securement of the Offset

As the GNWF Project will be constructed in stages, Neoen will coordinate the timing of each development phase with the securement of corresponding portions of the Offset Site(s), as outlined in **Section 2.4**. To mitigate the risk of not acquiring all required offset areas, Neoen proposes to establish either an option to purchase or a contract with extended settlement periods for the offset property (or components of it). This approach will grant Neoen exclusive rights to purchase the land within the agreed timeframe. Each Offset Area will be formally secured prior to the commencement of construction for its respective stage as described in **Section 2.4**.

Stage 1 and Stage 2 INTG Offset Areas are separate designated areas within the [redacted] Offset Site. Both areas are subject to the same Offset Management Plan (this Plan); however, management and monitoring actions will only apply to each stage prior to breaking ground for that stage of development. If Stage 2 is not developed, the on-ground area reserved for the Stage 2 offset would not need to be managed as an EPBC offset, nor monitored or reported on.

5.2.2 Long-term Protection Mechanism

Once the property has been legally secured by the above means, Neoen propose to execute a Heritage Agreement, in accordance with the South Australian NV Act, over the Offset Area(s), which will provide protection in perpetuity. The NVB within the SA DEW manages the implementation of HAs.

A HA is a conservation area on private land, which is subject to the NV Act and established by agreement (or contract) between a landowner and the (SA) Minister for Sustainability, Environment and Conservation. Agreements are ongoing or perpetual and are binding on future landowners. Even if the property is sold or ownership is transferred, the conservation status of the land under agreement will continue. Native plants and animals within the specified HA area must be protected from the time the agreement is made, thus preventing known and/or potential threats to the Offset Area(s), including change in land use, use of pesticides, insecticides or fertilisers and habitat fragmentation.

It will be the responsibility of the landowner to conduct weed and feral animal control and they must abide by relevant legislation such as the LSA Act. If an activity could adversely impact native flora and fauna in a HA area, then the Minister will need to grant approval before it can be performed. In addition to this, the planting of vegetation, regardless of whether it is native or exotic, requires Ministerial approval. The Minister is likely to grant approval if an activity is to provide a net benefit for the conservation of the area.

A HA will not preclude livestock (such as sheep) grazing from occurring within the [redacted] PBTL Offset Area. However, it is likely that implementation of the OMP, which includes specific grazing management measures such as limiting livestock to sheep and excluding cattle, as well as limiting grazing rates and timeframes, will be a condition of approval/execution of the HA.

Best practice management measures are incorporated into this Plan, based on the available literature and consultation with relevant stakeholders with expertise in the region, and will be undertaken as an adaptive management approach to ensure the management is fit for purpose under a range of environmental conditions.

Neoen has liaised with the NVB to formalise the steps to formalise a HA:

1. Neoen submit the HA Application: Shapefile of the HA boundary, maps, photos, description of the vegetation condition, conservation values and any management plans.
2. NVB assess the application:
    a. If the HA application is eligible and recommended, the NVB will notify Neoen via email that the HA application is accepted and the NVB Will commence the process to register the agreement.
    b. If the HA application is not eligible and/or not recommended, the NVB can negotiate with the landowner to get an acceptable outcome or it will go to the NVC to decide whether to approve or refuse the application. Neoen/the landowner will be notified of the decision.

*At point 2a, the HA is effectively secured, and the following steps are administrative only.

3. If the HA application is accepted, the NVB will work with the Land Services SA to produce a HA plan (General Registry Office (GRO) plan).
4. The HA plan is incorporated into the draft Memorandum of Agreement (the Heritage Agreement)
5. The draft Memorandum of Agreement is provided to Neoen/the landowner for signature.

6. The draft Memorandum of Agreement is provided to delegates to the NVC and Minister for signature.
7. The signed agreement is provided to the Crown Solicitor for verification and lodgement on title.
8. Once the HA is registered, the Crown Solicitors Office will notify the NVB, who will then notify Neoen/the landowner and provide a copy of the executed agreement.

5.2.3 Offset Area On-ground Security

As part of the implementation of the OMP, the risk of unauthorised personnel entry, damage, or vandalism to the Offset Area will be proactively managed to safeguard both ecological values and infrastructure. Unauthorised access can result in a range of negative outcomes, including damage to infrastructure, disturbance or destruction of native vegetation, introduction of weeds or pathogens, harm to wildlife, and interference with ongoing management activities. Such incidents may compromise the achievement of conservation objectives and could breach regulatory requirements.

To mitigate these risks, part of site securement will include installing physical security measures such as secure fencing, lockable gates at key access points to main access roads, and clear private property signage will be installed and maintained to deter unauthorised entry. Access to the INTG Offset Area will be strictly controlled, with keys or codes issued only to authorised personnel.

In the event of an incident damage will be repaired, the incident will be documented and investigated, and, if necessary, law enforcement or regulatory authorities will be notified. All incidents and responses will be logged and reported to the necessary authorities, including the Department if necessary (i.e. depending on the nature of the incident).

5.3 INTG On-ground Management Actions

The expected outcomes for the INTG Offset, outlined in **Section 4.3** will be achieved via implementation of formal protection (**Section 5.2**) and specific on-ground management aspects and associated management actions to be undertaken by an Accredited Third Party provider which will focus on:

- Management of grazing regime, based on **Appendix D** and in line with expert advice.
- Weed control.
- Pest herbivore control (native and introduced).
- Fire prevention.
- Revegetation (to increase native species diversity, if required).
- Monitoring to track the trajectory of ecological indicators.

Management actions will remain consistent across both Stage 1 and Stage 2. However, the timing of specific actions will be aligned with the implementation of offsets for each stage, in accordance with construction schedules. Management and monitoring activities for Stage 2 will only commence once Stage 2 is confirmed and prior to construction commencing, with the date yet to be determined.

A schedule of management actions is presented in **Section 5.3.8**. An implementation schedule of these management aspects and associated measurable outcomes are listed in **Section 5.4, Table 5.4.**

5.3.1 Baseline Assessment

A baseline assessment of the [redacted] INTG Offset Area Stage 1 and Stage 2 will be undertaken at the earliest opportunity, ideally before any management actions commence (such as grazing management, weed control, pest herbivore control). The assessment will occur within the optimal survey window for INTG (October to November) as indicated in the EPBC Act Policy Statement 3.7 (DEWR, 2007), in spring 2026. The baseline assessment will:

- Identify and mark five permanent 0.25 ha (50 m x 50 m) sites suitable for long term monitoring of INTG within the Offset Area, including three sites in Stage 1 (29 ha) and two sites in Stage 2 (15.5 ha).
- Collect baseline data on INTG Condition Class via assessment of grassland condition and ecological health indicators (outlined in **Section 6.1**).

Although Stage 2 will not be formally managed or monitored under this OMP until Stage 2 construction begins, it is recommended that its baseline assessment be completed at the same time as Stage 1 to ensure consistency. A second assessment will be undertaken in the optimal survey window prior to the commencement of Stage 2 management. If construction timing or survey windows prevent this from occurring before management actions start, the baseline survey will still be undertaken as soon as reasonably possible within the optimal window to ensure that the condition at the time of Stage 2 commencing is accurate.

5.3.2 Grassland Management

Implementation of suitable grassland management regime is a key part of managing the INTG Offset Area to maintain optimal grassland condition. Grassland management actions will vary between years in response to varying climatic conditions, as part of an adaptive management approach. Thus, a set grassland management plan is not proposed, rather a set of tools are provided which can be applied at the discretion of the land manager, in consultation with the experienced ecological advisor (for example, from the Northern and Yorke / Murraylands and Riverland Landscape Board), to achieve the desired outcomes, including grazing management and cultural burning.

The overarching objectives of grassland management for INTG are to:

- Reduce density of non-native annual grasses such as *Avena barbata* (Wild Oat), which creates a dense thatch over the ground in spring and summer, and prevents establishment of perennial and annual native species.
- Increase density of native perennial grass tussocks and other native herbaceous species, to stabilise the soil, reduce bare ground during dry periods (targeting <50%) increase water infiltration, and increase the current condition class rating of all sites to a minimum of Class B.
- Reduce cover and abundance of Declared weed species.
- Increase diversity and cover of native herbaceous species.

Initially, stock fencing will be erected, as required, to partition areas of the broader [redacted] Offset Site from the INTG Offset Area which require differing grazing management schemes, or to achieve suitable paddock sizes for grazing management

Any grassland management actions undertaken within the INTG Offset Area must be recorded on a Management Activity Datasheet, such as that presented in **Appendix E** and **Appendix D.**

5.3.2.1 Fencing

Fencing repair, replacement, construction and maintenance is proposed as part of this management plan. The current fencing (paddock) arrangement is indicated on **Figure 5.1.** At a minimum, fencing management will include regular monitoring for condition, to ensure that fences are in good stock-proof condition to enable effective management of grazing regimes. Additional fencing may be required as part of the grazing management scheme to enable planned rotational grazing of smaller paddocks, however this will be dependent on the number of livestock available to the land manager. Initially, a new fence will be required along the eastern boundary of parcel H200500 S630 as indicated in **Figure 5.1**. Any new fencing or fencing repairs will be carefully considered, as ground disturbance for installation of fences have potential to impact PBTL habitat which co-occurs with INTG.

Any new fences and their locations will be determined by the land manager in consultation with relevant experts (e.g. the PBTL Recovery Team or ecological consultants), based on the proposed grazing regime, including the number of sheep available and the size of paddocks required to achieve optimal high intensity short duration grazing, or as otherwise advised. All fencing will be carefully considered to minimize ground disturbance and micro sited to avoid any known PBTL locations. Fencing of this type in ecologically sensitive PBTL habitat has been successfully implemented previously (pers. comms PBTL Recovery Team Chair M. Gardner.

5.3.2.2 Grazing

Controlled movement of stock and implementation of correct grazing regime is a key part of managing an INTG Offset Area to achieve the objectives. The INTG TEC Recovery Plan (Turner 2012) states:

"*Continuation of appropriate livestock grazing is one of the main tools available for long-term management, maintenance and protection of the ecological community. Studies in native grasslands in the Mid North of South Australia indicate that management practices such as low intensity grazing and time-managed rotational grazing can help maintain or improve the condition, structure and habitat values of grassland remnants whilst also benefiting agricultural production (Earl and Kahn 2003). Complete exclusion of stock after a long history of grazing can be detrimental to native grasslands and depending on the grassland species composition and condition, can lead to dominance by introduced annual grasses and other weeds.*

Natural grassland communities are adapted to regular disturbance by herbivore grazing and fire (Curry 1994). Introduced livestock have largely replaced native herbivores in the landscape, especially small mammals and invertebrates. Stock grazing in Iron-grass grasslands could be actively managed to provide some of the essential ecosystem functions previously controlled by the native herbivores, including timely reduction of dry biomass from native tussocks, nutrient recycling and redistribution, seed dispersal and maintenance of structural complexity such as inter-tussock spaces, patchiness of species distribution and different growth stages of plants in the grassland. Stock can also be managed to reduce the impacts of introduced pasture species and some weeds, by controlling biomass and reducing seed production."

The timing, duration and frequency of grazing has the ability to significantly modify the structure and condition of grasslands, and if done correctly, can alter grassland structure to the benefit of INTG (DEWHA, 2008; Turner, 2012). Grazing at certain times (i.e. winter) targets consumption of non-native annual grass species such as *Avena barbata* (Wild Oat) prior to setting seed in spring. Coupled with rest periods over summer and autumn, perennial native grasses can then set seed. When undertaken

in this manner over multiple years, the seed bank of non-native species should decline in favour of native grasses.

The intensity of stocking (i.e. number and type of livestock including breeding status) influences the grazing pattern and intensity, with high density of livestock resulting in a more even and less selective grazing event. When undertaken in high density within restricted areas over short periods of time, effectively planned rotational grazing can reduce undesirable vegetation density and help to create open inter-tussock spaces for other plants to grow. Low stocking density, especially of sheep, can result in selective grazing of the most palatable species and canreduce grassland quality in the long term.

Grazing, when managed appropriately, is a valuable tool for grassland conservation. Strategic grazing can:

- Reduce dominance of invasive or non-native grasses (like annual weeds), which often outcompete native species and create dense thatch that limits biodiversity.
- Promote native perennial grass growth by allowing these species to set seed and regenerate, especially when grazing is timed to target weeds before they seed.
- Maintain open inter-tussock spaces that are important for many grassland fauna and such as reptiles and invertebrates and herbaceous plant species, by preventing excessive build-up of plant material.
- Control fuel loads and reduce the risk of uncontrolled fire which can be damaging to INTG and Lomandra tussocks.
- Mimic natural disturbance regimes that many grassland ecosystems evolved with, supporting a mosaic of habitat structures.

The objectives of grazing management are to:

- Enhance native grass and forb diversity and cover.
- Reduce cover of invasive *Avena barbata* (annual grasses) and weeds.
- Increase cover of native perennial grasses to more than one per linear metre.
- Reduce pedestalling of *Lomandra* tussocks.
- Be complementary to the aims and objectives of the [redacted] PBTL Offset Area and Offset Management Plan (Umwelt, 2025f - in draft) which overlaps with Stage 1 and Stage 2 of the INTG Offset Area.

Grazing management aspects, actions, indicators and triggers proposed to be implemented as part of this OMP are outlined in **Table 5**.

Table 5.2 Grazing Management Considerations and Triggers

Aspect	Method	Trigger for Adaptive Management	Adaptive Management
Timing	Graze in late winter and/or early spring (May to September) to target annual weeds before they set seed. Initiate grazing after onset of breaking rain if grass height above 10 cm. Rest paddocks in summer and autumn to allow native	Grass height below 10 cm after breaking rain (drought conditions). Late spring rain or grass height >15 cm.	Do not initiate grazing if grass height is below 10 cm. If late spring rain encourages weed growth or grass height exceeds 15 cm, initiate short grazing period outside of typical May to September window.

Aspect	Method	Trigger for Adaptive Management	Adaptive Management
	perennials to flower and set seed.		
Intensity	Use high-intensity, short-duration ("pulse grazing") to create patchiness and avoid overgrazing. Adjust stocking rates to avoid excessive bare ground or dense thatch.	Insufficient impact (patchiness not achieved) or overgrazing (bare ground increases).	Increase stock density at next grazing event or reduce paddock size through new fence installation if impact is too low and insuffient stock are available. Reduce stock density or duration if overgrazing is observed.
Duration	Minimise grazing duration, ideally less than 7 days; adjust based on utilization observed in the paddock.	Grazing exceeds 7 days or grass height drops below 5 cm. Selective grazing on palatable species observed.	Remove stock after 7 days or before grass height reaches 5 cm or less. Do not exceed 14 days in any one graze period. If selective grazing occurs, increase stock intensity or shorten duration.
Frequency	Rotate livestock between paddocks to allow recovery and regeneration of native plants. Recovery period for each paddock will be in excess of 30 days, or until no visible sign of the previous grazing period is evident. Longer rest periods will be utilised over summer or during drought conditions to enable native grass to seed and recovery of tussocks. (>90–180days).	Recovery period less than 30 days recorded or visible signs of previous grazing remain. Rapid regrowth of weedy grass species detected.	Extend rest period before next grazing event.Use longer rest periods (90–180 days) over summer for seed set. If regrowth is rapid, consider shortening rest period slightly, but not less than 30 days.
Climatic Conditions	Suspend grazing during drought when grass height is below threshold.	Grass height below 10 cm or prolonged dry conditions. Visual signs of pasture stress.	Delay grazing until adequate regrowth occurs. Consider alternative weed control if grazing is not possible. Monitor for recovery after rainfall.
Native or pest grazer overabundance	Monitor native grazer (e.g., kangaroo) populations and their impact on grassland condition.	Evidence of excessive grazing pressure from native herbivores (e.g., high numbers, reduced tussock density, increased bare ground, or failure of grassland to recover despite livestock exclusion).	Implement control measures (e.g., exclusion fencing, additional population management or exclusion fencing). Increase monitoring frequency. Engage with relevant agencies for coordinated management. Adjust livestock grazing regime to account for native or introduced grazer pressure until population levels are reduced.
Monitoring	Regularly assess grassland condition (tussock density, bare ground %, weed cover) annually for first 4 years, then biennially. Adjust	Average leaf height <5 cm or >15 cm. Negative trends in tussock density or weed cover	Adjust grazing regime based on monitoring. If grass height >15 cm, allow short grazing outside May–September with expert

Aspect	Method	Trigger for Adaptive Management	Adaptive Management
	grazing regime based on monitoring results and seasonal conditions. Calculate stocking rate and available feed (per **Appendix D**) prior to initiation of any grazing event.	reported in INTG Implementation Report.	advice. Increase monitoring frequency if unexpected changes occur. Consult experts if trends are negative.
Adaptive Management	Be prepared to modify timing, intensity, or duration of grazing in response to observed outcomes or changing conditions.	Any deviation from desired outcomes (e.g., decline in native species, increase in weeds, excessive bare ground).	Review and adapt grazing regime as needed. Consult with experts for further recommendations. Document all changes and outcomes.

5.3.2.3 Cultural Burning

Burning can be used in a similar way to other grassland management tools, by timing the event to coincide with certain ecological indicators such as prior to seed set of undesirable species, with the aim to reduce the seed set from that season and open up inter-tussock spaces. This method will only be appropriate where existing cover of perennial native grasses occurs in moderate density.

The impacts of fire on INTG have been scarcely studied, and thus any intention to undertake cultural burning will be in consultation with relevant experts and stakeholders. Additionally, as PBTL are known to occur within the [redacted] Offset Site more broadly, any cultural burning should also consider the potential impacts on PBTL, as per the [redacted] PBTL Offset Area OMP (Umwelt, 2025f - in draft).

Any cultural burning would only be undertaken as a managed, cool season burn, in moderate condition grasslands as described above. The impacts of burning on INTG (and PBTL) is not yet fully understood, and any cultural burning will be done with reference to the most recent information and in consultation with the PBTL Recovery Team and other relevant grassland experts.

5.3.2.4 Slashing

Slashing can be used in a similar fashion to grazing management, especially as an alternative where fencing is not desirable (i.e. around patches of woodland), but where ground is not too steep or rocky. Well timed slashing should occur in winter and prior to seed-set of non-native annual grasses, year on year, and can improve grassland condition by enabling native perennial grasses and forbs to set seed.

Slashing is the least preferred method of grassland management in this scenario, but can be utilised to manage exotic grasses in areas which are otherwise determined to be unsuitable for grazing or cultural burning.

The INTG Offset Area is rocky and steep in sections and therefore unlikely to be a suitable candidate for slashing. Any slashing would need to consider impacts to *Lomandra* tussocks as well as potential impacts to PBTL (i.e. through soil compaction).

5.3.3 Weed Control

Weed control is a key part of managing the INTG Offset Area. Declared weeds such as *Echium plantagineum* (Salvation Jane), *Marrubium vulgare* (Horehound), *Reseda lutea* (Cut leaf mignonette) and *Lycium ferocissimum* (African Boxthorn) are known to be present within the INTG Offset Area, which, in accordance with the LSA Act are required to be controlled. As such, targeted weed control within the INTG Offset Area will be required to be undertaken, particularly for Declared weeds. However, non-declared weeds that are not specifically required to be controlled under the LSA Act, will also be controlled as part of this INTG OMP through implementation of a grazing management plan (as detailed in **Section 5.3.2.2** and **Appendix D**). This includes control of grassy weeds, such as *Avena barbata* (Wild Oat).

Declared weeds mapped within the INTG Offset Area as part of the initial assessment are displayed on **Figure 5.1.** A full baseline weed assessment will be undertaken as part of this OMP, in Year 1 of the Offset Area.

A range of mechanisms can be utilised for weed control, at the discretion of the land manager, to enable an adaptive approach to weed management. A list of Declared weeds (which are either known to occur or have high potential to occur within the Stage 1 and Stage 2 INTG Offset Area) is provided in **Appendix F**, which includes multiple control mechanisms, methodology, recommended timing and other information as appropriate. This can be used as a guide to undertake weed control across the Offset Area, adapted as appropriate for the specific site conditions which vary seasonally or as the OMP progresses.

All management locations will be reassessed the subsequent year following initial treatment (in the appropriate season if not perennial) to determine if management measures have been successful. If management measures have not been successful, apply follow up treatment and / or adapt the type of control implemented until method successfully manages targeted weed.

Prevention of new weed establishment is also a component of the management plan. In addition to targeted control of existing Declared weeds, proactive measures will be implemented by the Land Manager to minimise the risk of new weed incursions. These are at the discretion of the engaged Land Manager (Third Party Provider) and not specifically included in this plan, however are likely to include maintaining hygiene protocols for vehicles, machinery, and equipment entering the Offset Area, regular surveillance through the course of other management work, for early detection of emerging weed species, and prompt removal of any new infestations. All management activities, including weed prevention measures, will be recorded in an Activity Record Sheet.

Weed control actions are scheduled to occur throughout the year, dependent on the species and type of control method utilised. Weed control will be initiated in Year 2 of the OMP following a baseline assessment undertaken in Year 1 of the OMP. The weed control timing, frequency and methods will be modified each year as part of an adaptive management approach, depending on the outcomes of initial control. If successful, weed control activities are expected to decline over time. Specific objectives being to:

- Reduce cover and diversity of existing perennial / woody weed species year on year, indicating success of control methodology.
- Reduction of existing perennial Declared weeds from INTG Offset Area by 75% or more by Year 10.
- No new weed species detected in INTG Offset Area. Any new weed species detected to be controlled are eradicated as soon as practicable, dependent on the methodology utilised.

Any weed control actions undertaken within the INTG Offset Area must be recorded on a Management Activity Datasheet, such as that presented in **Appendix E** as part of the internal reporting requirements of this OMP (**Section 6.4.1**).

5.3.3.1 Exclusions and Considerations

As the site is likely to contain PBTL (though none previously detected specifically within the INTG Offset Area(s)), contains suitable PBTL habitat, and is included as part of the [redacted] PBTL Offset Area, weed control methods will be selected to have minimal impact on PBTL habitat and be in accordance with the PBTL Recovery Plan (Duffy *et al.* 2012) and PBTL Best Practice Management Guidelines (Schofield, 2006) as follows:

- Use minimal disturbance weed control methods wherever possible.
- Minimise use of herbicide, however, if herbicide use is required to treat small scale infestations or individuals of Declared weeds such as *Reseda lutea* (Cutleaf mignonette), *Cynara cardunculus* (Wild Artichoke) or *Lycium ferocissimum* (African Boxthorn):
    - Read and adhere to the guidelines and recommended quantities stated on the label of the herbicide containers.
    - Ensure application occurs on a calm day to minimise drift and off-target damage.
    - Wherever possible, spot spray directly onto the target species.
    - Avoid broadscale application of herbicide.

If a sub-contractor is engaged to undertake weed control, ensure that they are aware of the above requirements.

High disturbance weed control, such as some physical removal techniques, has potential to be detrimental to PBTL habitat by causing soil disturbance and destruction of burrows and will be avoided if spider burrows are observed to be present in the direct vicinity of disturbance, or if a targeted survey finds PBTL within the disturbance area

A moderate level of grazing (by native and introduced grazers) will assist to control weeds and is the intention of the grazing management plan outlined in **Appendix D**. Other methods include slashing or the application of specific herbicides at certain times of the year. Whilst there is no direct evidence that herbicide use will harm PBTLs, it is known to cause fertility problems for small vertebrates (which PBTLs eat) and should only be used with caution (Schofield, 2006).

5.3.4 Pest Herbivore Control

As outlined in **Section 4.1.6** exotic herbivores are one of the key threats to INTG TEC identified in the Recovery Plan (Turner, 2012). This includes feral herbivores such as rabbits, hares, goat and deer, as well as overabundant native herbivores or unmanaged livestock. One of the threat abatement options is to "*Undertake planned and coordinated local action for pest control*" (Turner, 2012).

As such, pest/exotic herbivore control will be a key part of actively managing an INTG TEC Offset Area to achieve the objectives. Pest animal control methods include biocontrol, shooting, baiting, poisoning, fumigating, trapping and/or destruction/filling in warrens or dens, if appropriate. Different pest species will require different control methods, and more than one control method will be implemented, as required. Furthermore, the land manager will decide which specific pest control method(s) to use and when to use them. The NYLB and PIRSA are able to provide technical support and information to help control pest animals.

A full list of potential control methods, their application and recommended timing is presented in **Appendix G.**

Methods which avoid or minimise ground disturbance will be used as much as possible due to the likely presence of PBTL at the site. Any areas where ground disturbance is proposed will be subjected to a prior targeted search for PBTL using a burrowscope prior to undertaking the works, as per the [redacted] PBTL OMP (Umwelt, 2025f - in draft). If PBTL are detected within the disturbance area, alternative methods will be utilised to control that threat.

Any pest herbivore control actions undertaken within the INTG Offset Area must be recorded on a Management Activity Datasheet, such as that presented in **Appendix E.**

Pest herbivore populations are expected to be an ongoing management consideration for the Offset Area, given the surrounding agricultural landscape and the variability or absence of pest control on neighbouring properties. As a result, reinvasion from adjacent lands is likely, necessitating continuous management and adaptive management to respond to changes in observed density.

Pest herbivore monitoring will be conducted through systematic recording of all observations, captures, or culling events during regular pest management activities. Every sighting or management action must be documented with details including GPS location, date, time, and species. This data will be used to assess the effectiveness of pest control measures, with a stable or declining trend in pest numbers indicating successful management. If monitoring reveals an increase of more than 25% in any pest species compared to the previous session within the same season, this will trigger a review and escalation of management actions. It is important to note, however, that fluctuations in pest numbers may also reflect seasonal environmental conditions rather than a failure of the management program.

5.3.5 Fire Prevention

Fire is not currently used as a management tool on the property. The risk of uncontrolled/unplanned fire can be minimised via grazing (by native and introduced grazers) to reduce fuel loads as well as through implementation of standard risk minimisation protocols and a site specific Bushfire Management Plan.

The Land Manger will:

- Implement standard risk minimisation protocols including (but not limited to):
  - Monitor Country Fire Service (CFS) fire alerts and uncontrolled fires within 50 km of the Offset Areas on days of High Fire Danger (or higher).
  - Follow all CFS guidelines for Fire Danger Season and Total Fire Ban days (CFS, 2026)
  - Avoid driving vehicles off well-maintained tracks on days of Extreme Fire Danger.
- Maintain gates within fence lines, and existing access roads in a trafficable condition, allowing for access for fire-fighting activities if required.
- Engage with CFS to develop a Bushfire Management Plan for the INTG Offset Area (or broader [redacted] Offset Site) in Year 1 of the OMP.

. Any persons undertaking fire management activities on the property will be informed of the sensitivity of the habitat to ground disturbance. Ground disturbance will only be undertaken if absolutely

necessary for fire control works. Any occurrence of an unplanned fire event within the INTG Offset Areas will be reviewed as part of the monitoring and reporting process.

Fire can also be utilised as a management tool, such as in the case of cultural burning (**Section 5.3.2.3**). Cultural burning can be utilised, in consultation with relevant experts including Ngadjuri, the PBTL Recovery Team, Northern and Yorke/Murraylands and Riverland Landscape Board, National Parks and Wildlife Service South Australia (NPWSA) and CFS.

As the INTG Offset Area co-occurs with the [redacted] PBTL Offset Area, cultural burning will be sensitive to the needs of this species as outlined in the [redacted] PBTL OMP (Umwelt, 2025f - in draft). This will include avoidance of any burning activities during active times of PBTL including summer, autumn and spring. Any burn will be a cool burn, targeted to specific locations (i.e. not widespread), and any populations of PBTL within those areas will be monitored closely.

5.3.6 Revegetation

If monitoring (**Section 6.0**) determines that the condition of the grassland is not improving, or if there are significant declines in the cover, abundance, or diversity of native species—including *Lomandra* tussocks - a revegetation program will be commenced to restore and enhance the ecological values of the site to the satisfaction of this Plan's objectives. This assessment will be formally undertaken at Year 5, coinciding with the first review of this Plan. The results of the monitoring program will guide the scope and methods of revegetation, ensuring that corrective actions are targeted and effective in addressing any identified declines or failures to achieve improvement in grassland condition. Further detail on the type and extent of revegetation will be provided within the reviewed OMP, if required.

5.3.7 Monitoring and Reporting

A collaborative monitoring and reporting approach involving the Land Manager, Project Owner (Neoen) and a suitably qualified and experienced ecological consultancy (as required) will be implemented as outlined below, to enable an adaptive management approach. The approach will include:

- Management Activity Record Sheet (**Appendix E**) and Grazing Record Sheet (**Appendix D**): to be completed by Land Manager and provided to the Project Owner on an agreed timeframe (quarterly), and reported as part of the annual compliance and activity report.
- Effective monitoring program to be implemented by Land Manager (Accredited Third-Party Provider) and, if required, supported by an independent, suitably qualified and experienced ecological consultancy or organisation (at the discretion of the Land Manager or Neoen), to audit the implementation of the management actions and quantify and assess changes brought about by the management actions.

Monitoring, as described in **Section 6.0**, will be utilised to inform the success of the above management actions, in relation to INTG ecological indicators, and to identify if any triggers have been met for adaptive management. Monitoring for non-ecological indicators or specifically for management actions are described in the relevant section, with measurable outcomes and corrective actions identified in **Section 5.4**, **Table 5.4**.

5.3.8 Schedule of Management Actions

A proposed schedule of management actions is provided in **Table 5.3**. Year 1 is proposed to commence at the same time that the action commences.

Table 5.3 Schedule Overview of Management Actions, Stage 1 Indicated in Dark Blue, Stage 2 Timing in Light Blue Vertical Hash (Indicative Only)

Action Item	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12
Finalise agreement with Accredited Third Party Provider (land manager) and finalise OMP (this Plan) with them.													
Execute option to purchase agreement contracts with landholder for respective stage/s (**Section 5.1**)													
Initiate Heritage Agreement application with DEW (**Section 5.2.2**)													
Engage with NYLB and MRLB for ongoing consultation and review of management plan (**Appendix D).**													
Develop a Bushfire Management Plan for INTG Offset Area(s) (or broader [redacted] Offset Site) (**Section 5.3.5**).													
Replace any sections of boundary or internal fence, as required, and install new fences to reduce paddock sizes, if required (**Section 5.3.2.1**).													
Install security signage and ensure gates at main access points are lockable, with keys only supplied to authorized personnel.													
Engage suitably qualified ecological consultant to undertake baseline ecological assessment and set up permanent monitoring sites (**Section 6.0**).													
Implement Grassland Management regime (**Section 5.3.2**) (**Appendix D**)													
Monitor condition of boundary fence and ensure it is in good stock-proof condition (**Section 5.3.2.1**).													
Monitor condition of gates and roads to ensure fire access routes are clear and accessible (**Section 5.3.5**).													

Action Item	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12
Undertake management for feral herbivores and overabundant native herbivores including rabbits, hare, deer, goats and kangaroos. Timeframes, methods and regularity are described in **Section 5.3.4** and **Appendix G**).													
Undertake baseline weed assessment in INTG Offset Area(s) (**Section 5.3.3**)													
Undertake targeted weed control for Declared weeds within the Offset Area. Timeframes, methods and regularity are described in **Section 5.3.3** and **Appendix F**.													
Revisit areas of weed control in the following season to determine if previously applied methods were successful. Apply follow up treatment or adapt method if weed persists.													
Undertake revegetation if targets are not being met or decline in grassland condition is detected (if relevant).													
Ecological Monitoring (**Section 6.0**).													
Reporting (**Section 6.4**)													
Review of and update of [redacted] INTG OMP (this Plan) (**Section 6.4.1**)													

5.4 Implementation of the OMP

An implementation schedule of the above management aspects and associated measurable outcomes are presented in **Table 5**, including the overarching objective / expected outcome of the OMP (from **Section 4.3**), measurable outcomes, timing, responsibility, management trigger and corrective action.

5.4.1 Corrective Actions

If measurable outcomes of the implementation of the OMP are not being achieved, corrective actions associated with each specific measurable outcome, will be undertaken, as outlined in **Table 5.**

The INTG Offset Area Implementation Report will summarise the management actions undertaken and the ecological indicator trajectory (with respect to their desired outcome) and measurable outcomes associated with each management action. If management actions are not undertaken as per the OMP or ecological indicators are not demonstrating the desired outcome and measurable outcomes are not on track to being achieved, this will be documented, along with appropriate adaptive management and/or corrective action to ensure that the measurable outcome will be achieved, within the monitoring report which is submitted to the Department.

Table 5.4 Implementation Schedule

Objective	Management Aspect	Measurable Outcome / Performance Target	Methodology	Location Reference	Timing or Frequency	Responsibility	Monitoring Activity	Management Trigger(s)	Corrective Actions
Implement INTG OMP approved by the Department	Implementation of the INTG OMP	Implementation of the Stage 1 and Stage 2 INTG OMP is commenced prior to breaking ground for the respective stage of development of GNWF, following approval of the OMP by the Minister, and for a minimum of ten years, and measurable outcomes associated with management actions are achieved or in the process of being achieved as determined by monitoring outcomes (**Section 6.0**).	Implement the INTG OMP Stage 1 and Stage 2	**Section 5.1**	Upon approval of the OMP by the Minister, prior to breaking ground for the respective stages of development for GNWF (Stage 1 and Stage 2) and for a minimum of ten years.	Project Owner	NA	INTG OMP not approved by the Department. INTG OMP not implemented prior to breaking ground for the respective stage.	Project Owner to update the OMP to the satisfaction of the Department. Project Owner to implement the INTG OMP within 14 days of becoming aware that the INTG OMP has not yet been implemented for Stage 1 or Stage 2 prior to commencement of construction for the respective Stage.
Formal protection of the [redacted] INTG Offset Area for the duration of the action	Planning and establishment of the INTG OMP	Legal agreement between the Project Owner and landholder to purchase or lease.	Execute the legal agreement between the Project Owner and the land holder to purchase or lease the property.	**Section 5.2.1**	As soon as possible after approval of the OMP by the Minister, within Year 1 of the OMP commencing.	Project Owner	NA	Legal agreement between Project Owner and landholder not established.	Project Owner to execute the legal agreement as soon as possible upon becoming aware the legal agreement has not yet been executed.
		Heritage Agreement application lodged with DEW.	Establish formal protection of the INTG Offset Areas (Heritage Agreement)	**Section 5.2.2**	Commence process immediately after land purchase / lease agreement executed.	Project Owner	NA	Heritage Agreement application not lodged with DEW.	Lodge Heritage Agreement application as soon as possible or engage DEW to negotiate Heritage Agreement suitability, if required.
		Agreement established with Third Party Accredited Provider	Execute a legal agreement between the Project Owner and Accredited Third-party Provider to manage the land.	**Section 5**	Commence process immediately after land purchase / lease agreement executed	Project Owner	NA	Agreement not established with Third Party Accredited Provider.	Project Owner to execute the agreement as soon as possible or investigate alternative options if preferred option is not available.
Management of the INTG TEC Offset Area in accordance with a site-specific [redacted] INTG Offset Management Plan (this Plan) for the duration of the action to maintain and increase (where possible) the condition/quality of the INTG Offset Area.	Baseline Assessment	Baseline condition of INTG established at INTG Offset Areas (Stage 1 and Stage 2) and monitoring sites established.	Undertake baseline assessment of INTG Offset Area	**Section 5.3.1**	Spring 2026 for Stage 1 and Stage 2 and in spring prior to commencement of Stage 2.	Project Owner (may delegate)	NA	Baseline assessment not undertaken in Year 1 of OMP.	Ensure preliminary assessment of the INTG Offset Area is undertaken as soon as possible upon becoming aware that it has not yet been undertaken, preferably within the next suitable seasonal conditions, and prior to grassland management actions commencing.
	Grassland Management	Stock proof fencing around perimeter of property and suitable paddock sizes established to enable implementation of effective grazing regime.	Undertake fencing repairs and monitor for stock proof condition.	**Section 5.3.2.1**	Year 1 and quarterly thereafter.	Land Manager	Vehicle traverse of fence perimeter.	Livestock detected in unauthorised location / time outside of established grazing regime.	Investigate cause of incursion. If related to fence integrity, undertake fence repairs, maintenance and construction as soon as possible prior to commencement of grazing regime.
		Implement grassland management regime (i.e. grazing management)	Grazing regime, slashing, cultural burning.	**Section 5.3.2**	Year 2 and ongoing thereafter as per **Appendix D**	Land Manager	Grazing Record Sheet	Grazing regime not implemented or not implemented appropriately (i.e. outside of the specified timeframes, durations etc.).	Implement grazing regime as soon as possible, at the next suitable grazing period, as guided by **Appendix D.** Project Owner to contact Land Manager and remind them of obligation to undertake ecological grazing regime or investigate alternative options. Project Owner may implement external auditing if Land Manager fails to undertake grazing regime as required.

Objective	Management Aspect	Measurable Outcome / Performance Target	Methodology	Location Reference	Timing or Frequency	Responsibility	Monitoring Activity	Management Trigger(s)	Corrective Actions
		Improved grassland condition based on ecological indicators outlined in **Section 6.1**. This includes: • Maintain or improve (if possible) the condition classification for INTG in the Offset Area. • Stable or increase in native plant species diversity recorded at each monitoring site, especially herbaceous species. Reduced cover and diversity of existing grassland weed species year on year.	Grazing Management (and / or cultural burning, slashing)	**Section 5.3.2.2, 5.3.2.3, 5.3.2.4**	Year 2, ongoing	Land Manager	Ecological Monitoring Program (annually for the first four years and then biennially to Year 10, for the respective Stage).	Specific management triggers are outlined in	• Investigate cause of decline (or lack of improvement) (i.e. grass tussock density, species diversity, broad leaved herbaceous species diversity). • Adapt grazing regime accordingly depending on outcome of ecological monitoring, as detailed in **Table 6.2**. • Engage specialist advice for restoration if indicators show persistent decline. • Review conditions and adapt management accordingly, for example changed grazing regime, additional weed control or revegetation.
	Weed Control	Baseline weed survey undertaken in INTG Offset Area(s)	Location and number of all perennial Declared weeds in INTG Offset Area (s) to be mapped prior to undertaking weed management actions.	**Section 5.3.3, Appendix F**	Year 1	Land Manager (may delegate to suitable qualified and experienced ecological consultancy)	Management Activity Record Sheet.	Baseline weed survey not undertaken in Year 1, or prior to weed management actions being undertaken.	Undertake baseline weed survey as soon as possible and prior to undertaking weed management activities. Or utilise weed management Activity Record Sheet to inform baseline assessment. Project Owner may delegate to suitably qualified and experience ecological consultancy if not adequately undertaken by Land Manager.
		Implementation of targeted weed management program for Declared weeds in Offset Area(s) resulting in: • Reduced cover and diversity of existing perennial/woody weed species, year on year. • 75% or more reduction of existing perennial Declared weeds from INTG Offset Area by year 10.	Control existing Declared weeds in accordance with measures outlined in Section **5.3.3** and **Appendix F**.	**Section 5.3.3** and **Appendix F**	Year 2, ongoing	Land Manager	Management Activity Record Sheet. Follow up of all management actions recorded on Management Activity Record sheet	Follow up detects ineffective result from previous management action. Perennial Declared weeds remain in INTG Offset Area at Year 10	• Implement targeted weed control actions as soon as possible following baseline survey. • Follow up all weed management actions / locations on an annual basis to determine if control is effective. If weed management does not achieve desired outcomes (through manual removal, herbicide, biocontrol), engage specialist advice (i.e. Landscape Board or PIRSA).
		No new weed species detected.	Prevent incursion of new weed species.	**Section 5.3.3**	Year 1, ongoing	Land Manager	Ecological Monitoring Program	New weed species detected on site.	• Immediate targeted removal of new species, if detected. • Investigate source of introduction. • Strengthen biosecurity measures (vehicle hygiene protocols).
	Pest Animal Control	No higher than 25% increase in detection / capture / culling of pest herbivores (i.e. goats, hares, rabbits and kangaroos) over time. recorded through regular annual pest	Control feral herbivores and over abundant native herbivores	**Section 5.3.4** and **Appendix G**	Year 2, ongoing	Land Manager	Management Activity Record Sheet and results of repeated annual pest	More than 25% increase in detection / capture / culling or pest herbivores compared to previous year.	• Implement increased intensity, frequency and variety of pest control measures utilized. .

Objective	Management Aspect	Measurable Outcome / Performance Target	Methodology	Location Reference	Timing or Frequency	Responsibility	Monitoring Activity	Management Trigger(s)	Corrective Actions
		management activities. No detection of new pest herbivore species.					control programs.		• Engage with neighbouring landholders to coordinate pest management. • Obtain specialist advice (i.e. Landscape Board or PIRSA).
	Fire prevention	No unplanned fires in Offset Area.	Control fire load with grassland management tools. Implement Bushfire Management Plan for INTG Offset Area. Undertake standard fire risk prevention measures such as maintaining tracks and gates and abiding by CFS Fire Danger guidelines.	**Section 5.3.2** and **5.3.5**	Year 2, ongoing	Land Manager	Alert system for fires within 50 km of INTG Offset Area.	Unplanned fire detected in Offset Area.	• Investigate cause of unplanned fire. • Review and update any fire management plan to address any identified gaps (i.e. access routes or response procedures). • Implement additional fire prevention measures such as increased monitoring during extreme fire danger or reducing fuel load. • Implement additional monitoring of INTG Offset Area if impacted by unplanned fire.
	Revegetation	Stable or increase in native plant species diversity and abundance detected in INTG Offset Areas.	Review trajectory of ecological indicators in Year 5 of the OMP to determine if a revegetation plan is required to achieve the objectives of this plan.	**Section 5.3.6** and **Section 6.1**	Year 5	Land Manger (may delegate)	Ecological Monitoring Program	Sustained decline in native plant species diversity or abundance recorded in Ecological Monitoring Program.	If ecological indicators show decline beyond what is attributable to seasonal conditions, develop a revegetation program as part of the 5-year OMP review.
Monitor INTG condition within the [redacted] INTG Offset Area to establish if the condition of the Offset is being maintained or increased.	Monitoring and reporting	All management activities and relevant details are recorded and supplied to Project Owner on an annual basis at an agreed time (to be confirmed).	Complete Activity Record Datasheet and record in digital format and supply to Project Owner on an annual basis (at a time to be mutually agreed)	**Section 6.4.1**	Year 1, ongoing	Land Manager	Activity Record Sheet Grazing Management Record Sheet	Activity Record Sheet(s) not received by or to satisfaction of Project Owner	Project Owner to contact the Land Manager within 5 business days of lapsed due date for submission and remind them to complete the Activity Record Sheet and provide it to the Project Owner within 5 business days. Agreement with Land Manager to permit Project Owner to take corrective action, if required.
		Ecological monitoring undertaken using methods outlined in this OMP (**Section 6.0**) to measure ecological indicators.	Detailed methodology outlined in **Section 6.2.**	**Section 6.0**	Spring, annually for the first four years and then biennially until Year 10 when OMP is reviewed.	Land Manager (may delegate to suitable qualified and experienced ecological consultancy)	Annual ecological monitoring in spring.	Monitoring not undertaken within the required timeframe (spring) and schedule (annual for the first four years and then biennially), or to the required standard.	Project Owner to contact the Land Manager within 5 business days of becoming aware of monitoring schedule being lapsed or ineffectively implemented and remind them to complete the monitoring program as soon as possible within the spring survey window. Agreement with Land Manager to permit Project Owner to take corrective action, if required, such as delegating monitoring responsibility to suitably qualified ecological consultancy (external).
		INTG OMP Implementation Report completed and sent to DCCEEW at an agreed timeframe (to be confirmed).	Complete annual or biennial reporting requirements to be submitted to DCCEEW on an agreed schedule.	**Section 6.4.2**	Annually for the first four years and then biennially until Year 10 when OMP is reviewed. Timeframe of submission to be	Land Manager (may delegate to suitable qualified and experienced ecological consultancy)	NA	INTG OMP Implementation Report not submitted to DCCEEW at the agreed timeframe.	Project Owner to contact the Land Manager within 5 business days of becoming lapsed due date for submission and remind them to complete the reporting as soon as possible..

Objective	Management Aspect	Measurable Outcome / Performance Target	Methodology	Location Reference	Timing or Frequency	Responsibility	Monitoring Activity	Management Trigger(s)	Corrective Actions
					determined with DCCEEW.				Project Owner to inform DCCEEW of any updated timeframes for reporting submission. Agreement with Land Manager to permit Project Owner to take corrective action, if required, such as to delegate monitoring responsibility to suitably qualified ecological consultancy (external).
	Review	OMP Review completed in Year 5 and Year 10 of the respective Stage.	Review outcomes of the OMP management actions and monitoring of ecological indicators to determine if the expected outcomes are on the trajectory to or have been met.	**Section 4.2.1, 4.3** and **6.1**	Year 5 and Year 10 (of the respective Stage).	Land Manager (may delegate to	NA	INTG OMP not reviewed at Year 5 or Year 10 of the respective Stage.	Project Owner to contact the Land Manager within 5 business days of becoming aware of any identified non-compliance and remind them to complete the review as soon as possible. Agreement with Land Manager to permit Project Owner to take corrective action, if required, such as to delegate review to suitably qualified ecological consultancy (external).

5.5 Roles and Responsibilities

There will be two to three primary roles associated with implementation of this Plan, including the Project Owner (Neoen), the land manager (Accredited Third-party Provider) and potentially an Ecological Consultancy (at the discretion of the Land Manager and / or the Project Owner). The aspects and/or tasks that each role will be responsible for are summarised in **Table 5.5**.

Table 5.5 Roles and Responsibilities Associated with Implementation of this Plan

Role	Aspects and/or Tasks the Role Is Responsible For
Project Owner (Neoen)	Neoen is the Project developer and Project Owner who continue to be long-term owners and operators of many of their assets. Neoen is responsible for the planning of the entire GNWF Project, including seeking and obtaining relevant planning and environmental approvals under State and Federal legislation as well as construction and operation of the Project. The Project Owner will be ultimately responsible for implementing this Plan, which involves planning and establishing the proposed [redacted] PBTL Offset Area as well as engaging a suitably qualified land manager. In particular, the Project Owner is responsible for ensuring that reporting responsibilities are completed. Implementation of this Plan will be the responsibility of the Project Owner. Should the Project Owner change in future, implementation of this Plan will remain the responsibility of whoever is the Project Owner.
Accredited Third-party Provider/Land Manager	It is proposed that the Accredited Third-party Provider (or Land Manage) will be responsible for undertaking the day-to-day management of the [redacted] INTG Offset Area on behalf of the Project Owner (Neoen), including management of grazing regime, native grazers (if required), weed and pest animal control, fire prevention and revegetation (if required). The Land manager will also be responsible for delivering on the following*: • Undertaking, or engaging a suitably qualified ecological consultancy to complete monitoring and reporting activities and to review and analyse monitoring data and results to determine the success (or failure) of management actions and recommending adaptive management and improvement, if required. • Engaging with relevant experts to obtain up to date best practice management and advice on INTG management. • Reporting on management actions undertaken. • Complete annual activity, compliance and monitoring reporting to the satisfaction and timeframes of DCCEEW, to be delivered to the Project Owner for submission as per their agreed reporting timeframes *A suitably qualified and experienced Ecological Consultancy may be engaged to support or undertake these activities by either the Project Owner or Land Manager depending on the final agreement.
Ecological Consultancy	Depending on the final agreement, the Project Owner or Land Manager, at their discretion, may engage a suitably qualified Ecological Consultancy to deliver or support the following: • Monitoring the [redacted] PBTL Offset Area, including the installation of artificial PBTL burrows. • Undertake monitoring and reporting activities, reviewing and analysing monitoring data and results to determine the success (or failure) of management actions and recommending adaptive management and refinement/improvement, if required.

As stated previously, Neoen propose to negotiate a legal agreement with an Accredited Third-party Provider to manage the INTG Offset Area. Whilst the land manager will be responsible for implementing management actions within this Plan, Neoen will retain overall responsibility for ensuring the entire [redacted] INTG OMP is implemented and that management objectives are on track to being achieved. Neoen will also be responsible for engaging suitable qualified ecologists to undertake monitoring and reporting, as well as review of this Plan. Neoen will also be responsible for ensuring finalisation of this Plan. This includes periodic review of the [redacted] INTG OMP's success, including updates and improvement (adaptation) of management actions if required, to achieve the

OMP objectives. This will involve Neoen providing further direction to the land manager or utilising the resources of an external contractor to implement specific tasks.

6.0 Offset Ecological Monitoring Program

An effective monitoring program will be implemented by the Accredited Third Party Provider, on behalf of the Project Owner (Neoen) and may (at the discretion of the Third Party Provider or Project Owner) be supported by an independent, suitably qualified and experienced ecological consultancy to audit the implementation of the management actions, and to quantify and assess changes brought about by the management actions. Data will be collected on INTG condition at five 50 m x 50 m sites within the INTG Offset Area, including three sites within the INTG Offset Area Stage 1 and two in the INTG Offset Area Stage 2 (**Section 5.3.1**).

The INTG OMP proposes a monitoring program for the life of the Project (i.e. 25 years to 30 years), scaled to be most intensive for the first 10 years, and then with reduced frequency once the expected outcomes (**Section 4.3**) are demonstrated to have been achieved or progressing to being achieved. To ensure the expected outcomes are being achieved, an adaptive management approach will be adopted. This approach requires regular monitoring (as per the monitoring schedule in **Section 6.4, Table 6.4**) and review of the Plan at Year 5 and Year 10, allowing for review and corrective action of management strategies if required. The monitoring program (duration, frequency and methods) will also be adapted if required to best capture the required information.

The data collected will assist in making adaptive management decisions to ensure that INTG within the INTG Offset Area is on an improvement trajectory. This will include recommendations on the timing, frequency and duration of grazing, which will fluctuate according to environmental conditions.

Several non-ecological indicators will also be subject to monitoring, however monitoring of these are considered to be part of the management actions, namely pest herbivore control. Details of each of these is presented in the respective section being **Section 5.3.4**. This section relates specifically to monitoring of INTG condition and trajectory to achieve the conservation gain with offset.

6.1 Ecological Indicators

The objective to manage the INTG Offset Area in order to maintain or improve INTG condition will be assessed via collection of data on six specific ecological indicators to be monitored in the INTG Offset Area, along with the accompanying desired outcomes outlined in **Table 6.1**. Note that the desired outcomes (i.e. increase/decrease/maintenance) will vary somewhat depending on the results of the initial baseline assessment, when compared to the desired condition. More detail on these indicators is provided in **Table 6.2.**

Table 6.1 Ecological Indicators and Associated Measurable Outcomes

Ecological Indicator	Importance	Measurable Outcome
INTG Condition Class	To assess against the Condition Class Criteria outlined in the EPBC Act Policy Statement 3.7 (DEWR, 2007) (**Section 3.2.1**).	Maintain and/or increase the Condition Class of the INTG Condition Class compared to the Baseline assessment.
Vegetation composition (native and exotic plant species diversity)	To assist in assessing against the Condition Class Criteria and determine if the number of native species increasing, and non-native species decreasing.	Long-term increase in native plant species diversity and decrease in exotic species diversity based on initial baseline assessment.

Ecological Indicator	Importance	Measurable Outcome
Grassland health (% dead material; tussock height, basal width and canopy width)	Grassland health is related to health of the grass tussocks, amount of bare ground and litter (i.e. dead plant material/thatch) on the surface. Monitoring will partly focus on whether the tussocks are actively growing over time (increase in basal width), as influenced by intensity, duration and timing of grazing (or slashing) events.	Increased proportion of living material on mature tussocks based on initial baseline assessment. Increase in size of plants (height, basal width and canopy width) based on initial baseline assessment. Less thatch as proportion of whole plant based on initial baseline assessment. No significant increase in the cover of bare ground based on initial baseline survey.
Dominant species cover and abundance (tussock spacing; tussocks per hectare)	Cover and abundance can be measured fairly simply along a permanent 100 m transect (within each 50 m x 50 m quadrat), using a 1 m x 1 m quadrat at 10 m intervals, to count tussocks per square metre. This can be averaged out over a number of repeated counts. Juvenile plants can also be recorded using this methodology. However, a grassland community with a high density of tussocks already, may not show any significant change from year to year. Changes to exotic species levels can also be measured here.	Maintenance or decrease of tussock spacing to achieve >1 perennial native grass per linear metre. No decrease in tussocks per hectare to reference site levels in grassland communities based on initial baseline survey.
Soil surface condition (% cryptogram cover, % bare ground)	Inappropriate grazing, including heavy grazing by hard-hoofed stock, can impact the cryptogram and soil structure within PBTL habitat, and crush/damage spider and/or PBTL burrows. Cryptogam cover is used as an indicator as they contribute to increased soil stability where they occur and impacts from hard-hoofed stock will be evident if grazing has been inappropriate. The percentage of cryptogram and bare ground cover will be estimated along each 50 m transect within a 1 m x 1 m quadrat at 5 m intervals and averaged out over a number of repeated counts.	No loss of soil surface cryptogram and structure due to grazers based on initial baseline survey.
Weed species and coverage, including % litter cover;	Weed species in a grassland can suppress native plant growth. The species coverage and litter cover (i.e. dead material) can indicate if grazing intensity is sufficient to remove weedy grasses and open up the inters tussock spaces required for native herbaceous species.	Decrease the estimated cover and diversity of weed species and exotic litter cover.
Pest herbivore species abundance, including overabundant native herbivores.	A high density of pest herbivores will reduce the effectiveness of planned grazing management regime and will reduce the health of the grassland and grassland plants.	Stable or decrease in the number of individuals of each species culled and / or captured in INTG Offset Areas each year. Existing and new burrows / warrens of pest herbivores removed.

The status of each of the ecological indicators and associated desired outcomes will help determine if the habitat quality score is increasing in line with the objective of the OMP, over the initial 10 years of the Offset implementation. If required, corrective action will be undertaken to ensure the objectives are being met and/or continue to be met.

Undesirable outcomes will be triggers for adapting management actions. Adaptive management actions which can be implemented to ensure the desired outcomes are achieved are outlined in **Table 6.2.**

Table 6.2 Desired Ouctomes for Each Ecological Indicator, Desirable Outcomes, Undesireable Outcomes and Associated Adaptive Management Actions

Ecological Indicator	Desired Outcome(s)	Undesirable Outcome(s) / Trigger for Adapting Management Actions	Adaptive Management Action(s)
INTG Condition Classification)			
Number of native plant species	>15 or stable or increasing from baseline assessment.	Decrease from baseline assessment or <15 species.	Review results for other ecological indicators and grazing (via Grazing Management Datasheet) undertaken to determine potential cause of decrease in INTG Condition. If necessary, discuss results with Northern and Yorke Landscape Board or Murraylands Landscape Board. If determined to be unrelated to seasonal variation, adjust management actions. For example, grazing regime (timing, frequency, duration) (**Section 5.3.2.2, Appendix D**; pest herbivore control (**Section 5.3.4; Appendix G**). If condition classification and metrics are found to have declined year on year by Year 5, a revegetation plan will need to be developed (**Section 5.3.6**).
Number of broad-leaved herbaceous species (non-disturbance resistant)	≥3 non DRS broad leaved herbaceous species recorded in 0.25 ha survey sites. Stable or increasing from baseline assessment.	<15 non DRS broad leafed herbaceous species recorded in 0.25 ha survey sites, or decrease from baseline assessment.	
Number of native perennial grass species (excluding *Lomandra* spp.)	≥4 native perennial grass species. Stable or increase from baseline assessment.	<4 perennial native grass species or decrease from baseline assessment.	
Grassland Health Indicators			
% dead material	Increased proportion of living material/decreased proportion of thatch on mature native perennial grass tussocks.	Increase (>20%) in proportion of dead material on mature tussocks (in one year) based on initial baseline assessment.	Review climatic data and grazing undertaken to determine likely cause of decrease in grassland health indicators (based on initial baseline assessment); and if required, adjust management actions, such as, but not limited to: • Adapt grazing management regime to reduce or increase intensity of grazing as determined by the outcome. (timing/frequency/duration) (**Section 5.3.2.2, Appendix D**). • Increase pest herbivore control measures (**Section 5.3.4; Appendix G**). •
Tussock height	Increase in average height of perennial native grass species (>5 cm<15 cm).	Decrease in average height of perennial native grass species (<5 cm) or significant increase in height of perennial native grass species (>15 cm).	
Basal width	Stable or slight increase.	Significant increase or decrease.	
Dominant species cover and abundance			
Relative Importance	Stable or increasing, compared to baseline assessment.	Decreasing or significantly changing in species dominance compared to baseline assessment.	Review climatic data and grazing undertaken to determine likely cause of undesirable change in tussock spacing and/or decrease in number of tussocks per hectare (based on initial baseline survey); and if required, adjust management actions, such as, but not limited to: • Altered grazing regime (timing/frequency/duration) (**Section 5.3.2.2, Appendix D**).
Plants per hectare	Stable or increasing compared to baseline assessment.	Decrease (>20%) in tussocks per hectare to reference site levels in grassland based on initial baseline assessment.	

Ecological Indicator	Desired Outcome(s)	Undesirable Outcome(s) / Trigger for Adapting Management Actions	Adaptive Management Action(s)
			• Increase pest herbivore control measures (**Section 5.3.4; Appendix G**).
Soil surface condition			
% cryptogam cover	No loss of soil surface cryptogram cover and structure due to grazers based on initial baseline assessment.	Loss of (>20%) decrease in soil surface cryptogam and structure due to grazers (i.e. hoofed species such as sheep/goats) (in one year), compared to initial baseline assessment. The unofficial benchmark values for cryptogams (with moss and lichen cover) comprises up to 50% for Grasslands in the Northern Lofty botanical region (Croft, Pedler, & Milne, 2007).	Review management regime (including grazing undertaken) and climatic data to determine likely cause of undesirable change in cryptogam and bare ground (based on initial baseline assessment); and if required, adjust management actions, such as, but not limited to: • Altered grazing regime (timing/frequency/duration) (**Section 5.3.2.2, Appendix D**). • Increase pest herbivore control measures (**Section 5.3.4; Appendix G**).
% bare ground	No significant increase in the cover of bare ground based on initial baseline assessment. Preferably between 10% (minimum) and 50% (maximum) bare ground.	Significant increase (>25%) in cover of bare ground (in one year) compared to baseline assessment. Bare ground should not exceed 50% nor be less than 10%.	
Weed species and coverage			
Weed diversity	Decrease, or no new weed species detected.	Increase in the number of weed species detected based on baseline assessment.	Increase weed control activities or adapt weed control method. Target specific outbreaks if required (**Section 5.3.3, Appendix F**).
Weed projected coverage	Decrease compared to baseline assessment.	Increase (>20%) compared to baseline assessment.	Review management and climatic conditions to determine potential cause of increased weed coverage or litter cover (based on initial baseline survey); and if required, adjust management actions as, such as, but not limited to: • Altered grazing regime (timing/frequency/duration) (**Section 5.3.2.2, Appendix D**). • Targeted weed control (**Section 5.3.3, Appendix F**). • Biocontrol introduction (if available) (**Section 5.3.3, Appendix F**). • Liaison with Landscape Board to determine if increase is widespread or isolated to the site and therefore attributable to specific management.
Litter cover %	Decreasing or, no significant increase in litter cover based on initial baseline assessment.	Increase (>20%) in the % of litter cover (i.e. native and exotic dead plant material/thatch) compared to baseline assessment.	
Pest Herbivore Abundance			

Ecological Indicator	Desired Outcome(s)	Undesirable Outcome(s) / Trigger for Adapting Management Actions	Adaptive Management Action(s)
Abundance of pest herbivore species including Kangaroos	Stable or declining number of pest herbivore species and individuals recorded during targeted management.	Increase in number of pest herbivore species and individuals recorded during targeted management by more than 25% in a single year. New pest herbivore species detected.	Review management regime (including pest herbivore control effort) and climatic data to determine likely cause of undesirable pest animal abundance (based on initial management events in Year 1); and if required, adjust management, such as, but not limited to: • Increase pest herbivore control measures (**Section 5.3.4; Appendix G**).

6.2 Monitoring Methodology

The proposed method for monitoring each of the ecological indicators described in **Section 6.1** is outlined in **Table 6.3** for each desired outcome. Detailed monitoring methods, including the number and location of selected sites will be detailed in the first (baseline) monitoring report for each of Stage 1 and Stage 2 of the [redacted] INTG Offset Area(s) Monitoring methodology is subject to change slightly, if updated information or advice is received which indicates that alternative methodologies will be more effective.

In addition to targeted monitoring described below, any opportunistic observations observed within monitoring quadrats or surrounding [redacted] Offset Site will be recorded (type and location) and reported upon. For example, observations of native or pest grazers (kangaroos, goats, rabbits) and their scats, tracks or warrens; or significant weed outbreaks or infestations.

Table 6.3 Monitoring Methodology

Ecological Indicator	Method
INTG Condition Class	Dedicated search in up to five established 50 m x50 m (0.25 ha) monitoring quadrats, including three in Stage 1 and two in Stage 2, to record a comprehensive native (and introduced) species list.
Grassland health (% dead material; tussock height, basal width, % litter cover)	50 m permanent transect established at each of the five 50 m x 50 m (0.25 ha) INTG monitoring sites, with a combination of two methods used to measure grassland health: • 10, 1 m x 1m quadrats placed every 5 m along the transect to measure percentage litter cover (and other attributes described below) (**Figure 6.1**). • Point-centred Quarter Method (PCQM), at every 5 m along the transect the point is divided into four quarters (**Figure 6.2**) at which the nearest perennial native grass tussock to the centre point is measured to collect the grass attributes (% dead material, tussock height, basal width). Only the four (or five) most dominant grass species are recorded, excluding juvenile grasses (described as tussocks with basal width <1 cm). • A dedicated photo monitoring point will be set up at each end of the 50 m x 50 m transect to visually track condition of the grassland over time.
Dominant species cover and abundance (tussock spacing; tussocks per hectare)	As above, the PCQM will be used to estimate the dominant species cover (relative importance), tussock spacing (i.e. average distance from the centre point) and number of tussocks per hectare.
Soil surface condition (% cryptogam cover, % bare ground)	As above with: • Cryptogam cover, bare ground will be estimated as a percentage at each of the 10, 1 m x 1 m quadrats. >100% cover can be recorded as each of these attributes overlap.
Weed species and coverage	As above with: • 10, 1 m x 1 m quadrats placed every 5 m along the transect to measure grassland health attributes) (**Figure 6.1**). • Litter cover (dead) and live weed cover will be estimated as a percentage at each of the 10, 1 m x 1 m quadrats. >100% cover can be recorded as each of these attributes overlap. • Species list and estimated live weed coverage of all species across the 0.25 ha monitoring quadrat. Additionally, a general traverse of the INTG Offset Area to locate and record (GPS location, number of individuals) Declared perennial weeds within the INTG Offset Area.
Pest herbivore density and abundance	Pest herbivore monitoring will be conducted through systematic recording of all observations, captures, or culling events during regular pest management activities, collected by the land manger or engaged contractor, and supplied to the land manager within one month of the management event. Every sighting or management action must be documented with details including GPS location, date, time, and species. This data will be used to assess the effectiveness of

Ecological Indicator	Method
	pest control measures, with a stable or declining trend in pest numbers indicating successful management. If monitoring reveals an increase of more than 25% in any pest species compared to the previous session within the same season, this will trigger a review and escalation of management actions.

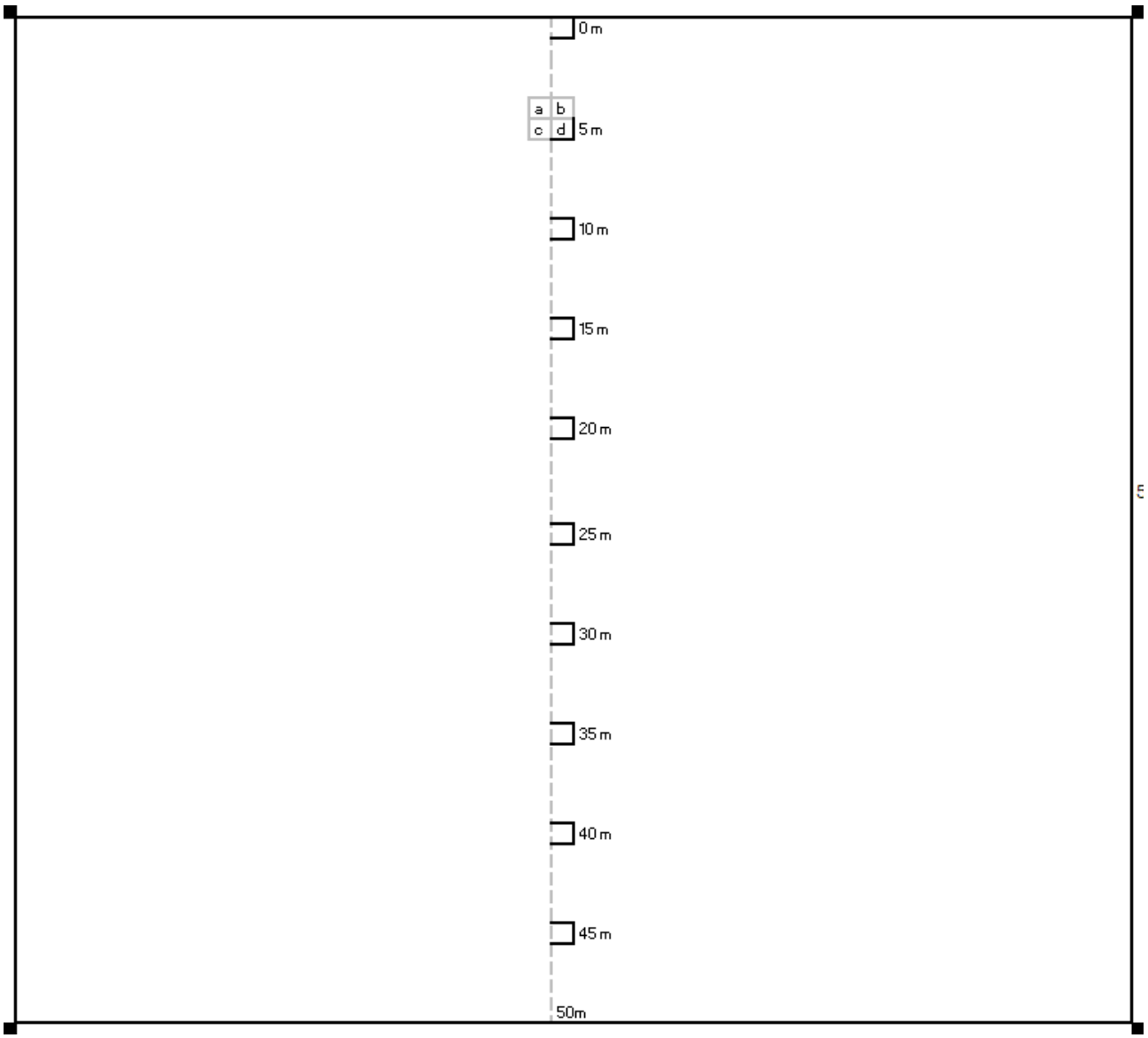


Figure 6.1 Indicative PBTL Monitoring Quadrat, Showing 50 m x 50 m Search Quadrat, 50 m Permanent Transect, 10 1 m x 1 m Quadrats and PCQM Quarters (a, b, c, d) (indicated at 5 m only), but undertaken across all monitoring points.

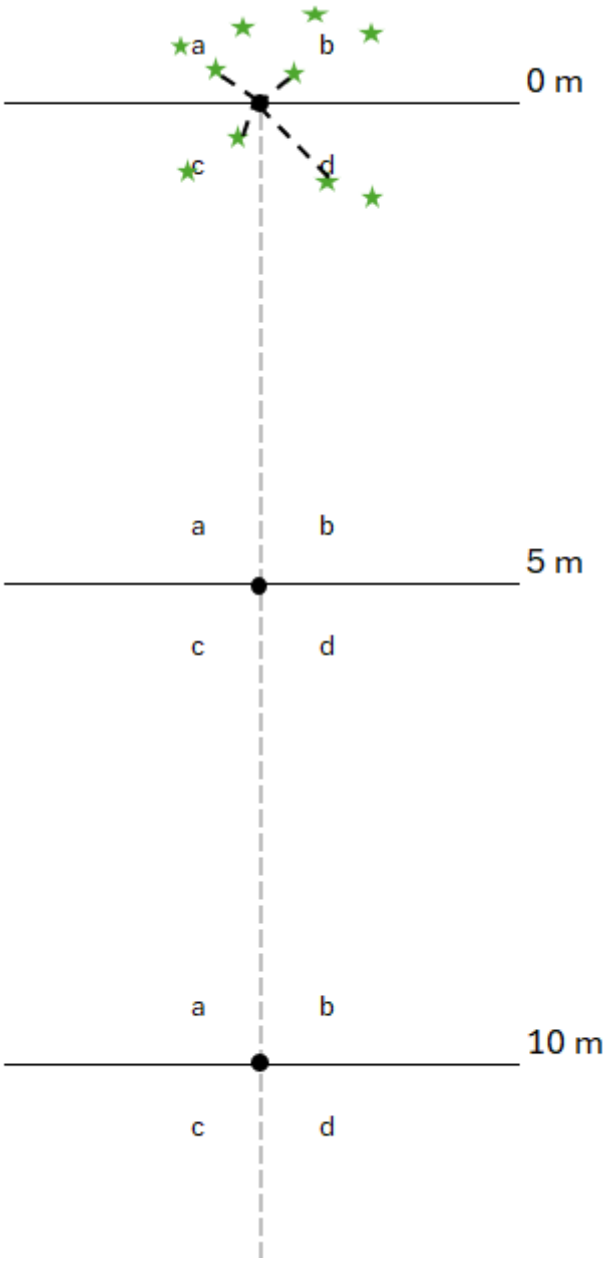


Figure 6.2 **Indicative PCQM, Used to Collect Data On The Closest Tussock Grass (Indicated by a Green Star) Located In Each Of The Four Quarters (a, b, c and d) of a Quadrat, at Each Sample Point, Along The Transect (image adapted from Tongway & Hindley 2005)**

6.3 Frequency and Timing of Monitoring

Monitoring events will initially be implemented once a year for the first four years of each respective stage (Stage 1 and Stage 2, with start time to be determined based on construction schedule for each stage) (providing a total of four monitoring events), with field work for monitoring events to be undertaken in Spring (October or November) within two months of rainfall (where possible).

The results of each monitoring event will be analysed post field survey and used to assess the status of INTG condition and the effectiveness of management actions and identify any management failures

or areas for improvement in a timely manner. However, the very first monitoring event as part of this initial four years of monitoring, will be a baseline survey which records the status of the INTG condition within the INTG Offset Area. Five permanent 50 m x 50 m monitoring sites, each with a 50 m permanent transect, will be established, to monitor grassland condition. Monitoring site selection and the initial (baseline) survey will be undertaken prior to implementation of on-ground management actions such as grassland management (**Section 5.3.2**), weed control (**Section 5.3.3**) and pest herbivore control (**Section 5.3.4**). Although this baseline survey will inform the success of management actions, it is acknowledged that the condition of INTG fluctuates in response to seasonal conditions, therefore, a true baseline will be established over the first few years at each respective stage.

After completion of the initial monitoring described above, monitoring events will be implemented once every two years over six years (i.e. in years 6, 8 and 10), after which the need for ongoing monitoring will be reviewed and discussed with the Department. If monitoring determines that the future quality target for the INTG Offset Area (**Section 4.2.1**) has not been achieved within the proposed ten-year management timeframe, then Neoen will undertake further management in accordance with this INTG OMP beyond the initial ten years proposed, until the future quality target score is achieved. Monitoring and reporting will also continue until the future quality target score is achieved.

Table 6.4 [redacted] INTG OMP Monitoring Schedule, Duplicated for Each Stage as it Commences

Year	Activity	Comments
Year 1	Establish survey sites and baseline condition / populations.	Prior to implementation of management actions.
Year 2 to Year 4	50 m x 50 m INTG survey plots and 50 m transects at sites established in Year 1. Grassland Condition Monitoring	Review results of each survey session and make adaptive management recommendations (if necessary).
Year 6, Year 8	50 m x 50 m INTG survey plots and 50 m transects at sites established in Year 1. Grassland Condition Monitoring	Review results of each survey session and make adaptive management recommendations accordingly.
Year 10	50 m x 50 m INTG survey plots and 50 m transects at sites established in Year 1. Grassland Condition Monitoring	Review if EPBC Offset Gain has been achieved. Plan future management and monitoring events as required. Review and update INTG OMP.

6.4 Reporting Schedule

A combination of internal and external reporting is required as part of this OMP. The internal and external reporting requirements are outlined in **Table 6.5** and detailed further in Section **6.4.1**, **6.4.2** and **6.4.2.1**.

Table 6.5 Reporting / Record Keeping Schedule

Report Type	Report Contents	Timing / Trigger	Responsibility	Recipient	Purpose
Internal	Activity Record Sheet (including Grazing Record Sheet	Ongoing, as required upon completion of any management activity. Supplied to Neoen annually at a mutually agreed time.	Land Manager	Neoen	To keep track of activities undertaken within the Offset Area.

Report Type	Report Contents	Timing / Trigger	Responsibility	Recipient	Purpose
Internal	Number of pest animals captured / culled during shooting program.	As required, within one month of pest control activity being undertaken.	Subcontractor (i.e. shooter)	Land Manager	To identify trigger for additional management (i.e. 25% increase or more in number of culled individuals of any species).
External	INTG Offset Implementation Report	Annually for the first 4 years and then biennially (year 6, 8, 10). Initially Stage 1, until Stage 2 commences.	Project Owner (Neoen)	DCCEEW	For the specified reporting period, to detail implementation of the management actions undertaken, identify any corrective actions undertaken or required, detail the results of the monitoring program for each Stage of the INTG Offset Area, to identify if desired outcomes are being achieved, and to identify areas for adaptive management if required.
External	Incident / Non-Compliance Report	Initiated immediately upon occurrence of any incident that could impact on the condition of the Offset or MNES within the Offset, (i.e. unplanned fire, unauthorised activities).	Land Manager and Project Owner (Neoen)	DCCEEW	To notify DCCEEW of unauthorised or damaging activity within the Offset Area(s).

6.4.1 Internal Reporting / Record Keeping

Internal reporting for the OMP will be conducted through the completion of Activity Record Sheets (including Grazing Record Sheet), as provided in **Appendix E** of the plan. These sheets are to be filled out by the land manager whenever management actions are undertaken, ensuring a comprehensive record of all activities undertaken in the Offset Area. The reporting will capture essential details such as:

- The date or date range (duration) that each management action was commenced or undertaken.
- The type of activity (e.g., grazing management, weed control, pest management, firebreak maintenance, or surveillance).
- The specific location (i.e. GPS location or paddock number).
- Any further details such as the number of, or area of weeds controlled or timing, stocking density, and duration of grazing events.
- The personnel involved (including if external contractors are engaged to undertake management activities).
- Any follow-up actions required.

All management activities will be recorded digitally and maintained on file by the land manager for at least the duration of the OMP's implementation, supporting transparency, accountability, and effective adaptive management throughout the life of the Offset. If any actions are identified to follow

up, these will be entered into a site-specific land management schedule, to be developed by the land manager.

A summary of management activities undertaken will be provided to the Project Owner on an annual basis at a regular interval to be determined and agreed to by both parties.

The land manager will be responsible for obtaining reports (or data) as required from any external subcontractors such as pest animal shooters, to enable record keeping for number of animals removed, and also to identify if additional work is required (i.e. if trigger of 25% increase in numbers from previous year is realised).

6.4.2 External Reporting

An INTG Offset Area Implementation Report (or similar), will detail the implementation of the OMP (**Table 5.4**), corrective actions undertaken (if required), and results of the monitoring program for each Stage of the INTG Offset Area. The report will also recommend any minor amendments to management actions (i.e. adaptive management), such as to the grazing regime. The report will be submitted to the Department, on an annual and then biennial basis (as outlined in **Table 6.4**), up to year 10 (as a minimum) of the INTG Offset, after which the reporting requirements will be reviewed (see **Section 6.4.2.1**).

The INTG Offset Area(s) Implementation Report(s) (or similar) will:

- Summarise implementation of management actions (for example grassland management, weed and pest herbivore control) undertaken in the INTG Offset Area, and recorded internally, during that reporting period.
- Discuss the outcome of those management actions (including whether actions are adequate or inadequate) and determine if the OMP has been implemented as per the approved plan
- Identify if any corrective actions have been undertaken within that reporting period, or if corrective action is required.
- Present and analyse the monitoring results including:
    - Detail the monitoring methodology. Summarise the status (i.e. desired or undesired) of measurable outcomes associated with each ecological indicator (as indicated in **Table 6.1.** Compare the monitoring results to previous monitoring results collected to date. Identify any trends in the INTG Condition Class or grassland condition.
- Document any minor amendments to management actions (i.e. adaptive management), that are to be implemented by the land manager (after consideration and approval by the Project Owner (Neoen)).
- Recommend any minor amendments to management actions, for the Project Owner (Neoen) to consider and if appropriate, direct the land manager to implement.

Monitoring data will be prepared in accordance with the *Guidelines for biological survey and mapped data* (Commonwealth of Australia, 2018) and provided to the Department on an annual or biennial basis (Years 6, 8 and 10), as an attachment to the INTG Offset Area Implementation Report.

6.4.2.1 Incident Reporting

Incident reporting will be limited to incidents which may breach the conditions of approval (i.e. non-compliance) or environmental incidents which may impact on threatened species or ecological communities. The Land Manager will be required to report any incidents of this nature to the Project Owner, who will then determine if the incident is reportable to the Department. Reportable incidents include:

- Taking action without an approval.
- Breaching an approval condition.
- Starting an action after submitting a referral but before DCCEEW has approved it.
- Failing to take action in a specific manner.
- Failing to obtain a permit.
- Not complying with a permit.

Other incidents which may be reportable, specifically related to the Offset Area include:

- Unauthorised disturbance to (i.e. clearance or destruction of) of MNES or MNES habitat in the Offset Area (i.e. disturbance to INTG). This includes accidental disturbance such as unplanned fire in the Offset Area.
- Detection of illegal activities within the Offset Area (for example, illegal poaching of PBTL).
- Failing to implement or undertake (i.e. non-compliance) management actions in the approved OMP within the specified timeframes (as indicated in the approval conditions or in **Table 5.4**).

6.4.2.2 Review and Update of the [redacted] INTG OMP

This Plan will be reviewed and updated (if required), separately to the monitoring reports mentioned above, at five year intervals, for the first 10 years (as a minimum). The first review will occur five years after implementation of the PBTL Offset Area (i.e. within the fifth year, after the fourth year of survey and monitoring results have been reported) to assess whether it is on track to achieve the expected outcomes. A second review will take place in year 10 following the monitoring, using compiled monitoring results to evaluate the success of current management actions and identify and amendments to management actions and/or the monitoring program needed to ensure outcomes continue to be met. These reviews will also determine what ongoing management or monitoring is required. Each review will draw on monitoring data collected to date, input from the Land Manager and Ecological Consultant (where relevant), expert advice such as from the NYLB / MRLB, and the Project Owner (Neoen).

Each review will be documented within an amended version of the INTG OMP and include:

- the review process
- the status of measurable outcomes associated with each management action
- the monitoring results to date
- the status of achieving the INTG OMP expected outcomes
- any amendments to the management actions (if required)

- any amendments to the monitoring program
- any recommendations for future reviews.

The amended version of this Plan will be provided to the land manager and submitted to the Department for reference. Any significant changes to this Plan will require approval from the Department.

6.5 Adaptive Management

In the event that measurable outcomes are not being achieved, an adaptive management approach will be adopted to ensure the expected outcomes (**Section 4.3**) of the INTG OMP Plan are being met. This involves adapting management actions associated with the management aspects outlined in **Table 6.2** in response to the results of the monitoring program (**Section 6.0**) and to unforeseen or unplanned management threats and issues, as well as to reflect advances in ecological research and land management technologies that arise during implementation of the Plan. The timing of any adaptive management measures will be dependent on the recommendation but should be implemented at the next available opportunity for that management action.

For example, if the results of the monitoring program suggest that INTG condition within the INTG Offset Areas are not being maintained or improved, then management aspects and actions associated with grassland management and/or weed control will need to be reviewed and adapted to ensure that INTG is being maintained and/or improved.

The Land Manager, or suitably qualified and experienced ecological consultancy, engaged at the discretion of the Land Manager or Project Owner, will review the results of the monitoring program and, if required, recommend changes to relevant management actions. Where appropriate, the Project Owner (Neoen) will direct the land manager to implement minor amendments to management actions, upon advice from the ecological consultancy.

Monitoring results will be documented within the INTG Offset Area Implementation Report (or similar), which will be provided to the Department for reference and used to direct the Land Managers management of the INTG Offset Area to work towards continued maintenance, and where possible, improvement of the INTG condition.

7.0 Risk Management Plan

This Plan has identified and considered any risks that may prevent achievement of the expected outcomes stated in **Section 4.3**. The risks have been assessed against the Risk Matrix in **Table 7.1** and rating in **Table 7.2**, based on the DCCEEW Environmental Management Plan Guidelines (DCCEEW, 2024). The risk analysis:

- Identifies events and threats that will, may, or are likely to impact the achievement of the expected environmental outcomes.
- Assesses threat levels both before (initial risk rating) and after (residual risk rating) risk mitigation strategies are applied.
- Identifies appropriate risk mitigation strategies, with trigger criteria for corrective actions should risks eventuate.

The risk assessment for the Offset is presented in **Table 7.3**.

7.1 Risk Matrix

A risk matrix (**Table 7.1**) and subsequent risk rating based on the likelihood of occurrence and consequence if the event occurs (**Table 7.2**) are used to guide a risk assessment for the Offset Area, presented in **Section 7.2**.

Table 7.1 Risk Matrix

Risk Matrix	
Likelihood (L): A qualitative measure of likelihood: how likely is it that this event/circumstances will occur both before and after an offset is secured	
Highly likely	Is expected to occur in most circumstances
Likely	Will probably occur during the life of the Project
Possible	Might occur during the life of the Project
Unlikely	Could occur but considered unlikely or doubtful
Rare	May occur in exceptional circumstances
Consequence (C): Qualitative measure of what will be the consequence/result if the event/circumstances does occur	
Minor	Minor incident of environmental damage or Offset risk that can be reversed, resulting in short-term delays to achieving strategy objectives, implementing low-cost, well-characterised corrective actions)
Moderate	Isolated but substantial instances of environmental damage or Offset risk that could be reversed with intensive efforts resulting in short-term delays to achieving strategy objectives, implementing well-characterised, high cost/effort corrective actions.
High	Substantial instances of environmental damage or Offset risk that could be reversed with intensive efforts resulting in medium-long term delays to achieving strategy objectives, implementing uncertain, high-cost/effort corrective actions.
Major	Major loss of environmental amenity or Offset risk and real danger of continuing resulting in . strategy objectives are unlikely to be achieved, with significant legislative, technical, ecological and/or administrative barriers to attainment that have no evidenced mitigation strategies.
Critical	Severe widespread loss of environmental amenity or complete loss of Offset and irrecoverable environmental damage resulting in strategy objectives unable to be achieved, with no evidenced mitigation strategies.

Table 7.2 Risk Rating Based on the Conesequence and Likelihood in the Risk Matrix

Final Risk Rating (R): A function of multiplying Likelihood (L) and Consequence (C)					
Consequence → Likelihood ↓	Minor	Moderate	High	Major	Critical
Highly likely	Medium	High	High	Severe	Severe
Likely	Low	Medium	High	High	Severe
Possible	Low	Medium	Medium	High	Severe
Unlikely	Low	Low	Medium	High	High
Rare	Low	Low	Low	Medium	High

7.2 Risk Assessment

A risk assessment for the INTG Offset is presented in **Table 7.3** including:

- Force majeure events
- Standard risks
- Risks associated with securing the offset (adapted from Lathwida 2025, unpublished)
- Risks associated with staging the offset (adapted from Lathwida 2025, unpublished).

Table 7.3 Risk Assessment for the [redacted] INTG Offset Area

Risk Event or Circumstance	Risk Description (e.g. Cause and Effect)	Initial Risk Rating			Risk Mitigation Strategy(ies)	Timing, Frequency or Duration	Residual Risk Rating			Management Trigger(s)	Monitoring Mechanism(s)	Corrective Action(s)
		L	C	R			L	C	R			
Force Majeure Events												
Climate change	Prolonged unfavourable weather conditions, such as drought, reducing INTG condition.	Possible	High	Medium	Monitor Offset condition and adapt management (in accordance with OMP), for example, reduce grazing pressure (if appropriate), or implement other adaptive management measures.	Ongoing, life of the Project	Possible	Moderate	Medium	Decrease in Offset condition observed during monitoring.	Monitoring Program (in accordance with OMP).	Implement adaptive management (in accordance with OMP).
Sale of property	Landowner sells property containing INTG Offset, threatening achievement of environmental outcomes.	Possible	Major	High	A legal agreement will be in place, which will include appropriate measures to protect the INTG Offset in any proposed change of land ownership or control over the land. Furthermore, a Heritage Agreement will be executed over the Offset Area and require future landowner to meet the requirements of the Heritage Agreement.	As soon as possible after approval of the OMP by the Minister, prior to commencement of the action.	Possible	Minor	Low	Sale of Property	Landowner required to inform Project Owner of sale of the property.	Project Owner to ensure new landowner is aware of legal agreement and Heritage Agreement.
Standard Risks												
Inadequate implementation of the OMP	Land manager (landowner) not having or allocating sufficient resources or time to implement management actions they are responsible for.	Possible	Minor	Low	Project Owner will implement a legal agreement with the Accredited Third Party Provider (Land Manager) to manage the Offset in accordance with this OMP. This includes Project Owner providing an annual budget to the landowner to manage the Offset in accordance with this OMP.	As soon as possible upon approval of the OMP by the Minister and then ongoing for the life of the Project.	Unlikely	Minor	Low	Landowner's management actions not undertaken in accordance with OMP – as observed via monitoring or discussion with landowner.	Monitoring Program (in accordance with OMP).	Project Owner to remind Land Manager of their responsibilities under the legal agreement. Project Owner to consider engaging separate party to carry out landowner's responsibilities (such as monitoring, reporting or management).
Decrease in the condition of the Offset	Decrease in the condition of the Offset observed during monitoring (cause may be unknown until investigated further).	Possible	Moderate	Medium	Baseline assessment of Offset condition undertaken prior to implementation of management actions in OMP, in Year 1 of the OMP Monitoring Program used to quantify and qualify changes in Offset condition over time. Implement adaptive management (in accordance with OMP), for example, reduce grazing pressure (if appropriate), or implement other adaptive management measures to improve condition.	Baseline assessment in Year 1 of the OMP. Monitoring as per Monitoring Schedule in **Table 6.4** and reporting requirement in Section **6.4**.	Possible	Minor	Low	Decrease in Offset condition observed during monitoring.	Monitoring Program (in accordance with OMP).	Investigate potential/likely causes of decrease in condition of Offset site. Implement adaptive management (in accordance with OMP), for example, reduce grazing pressure (if appropriate), or implement other adaptive management measures to improve condition. If ecological indicators show decline beyond what is attributable to seasonal conditions, develop a revegetation program as part of the 5-year OMP review.
Weed increase or incursion	Increase in the abundance or diversity of Declared weeds or pest animal species including pest herbivores due to inadequate implementation of the weed control program.	Possible	Moderate	Medium	Implementation of targeted grassland management (Section **5.3.2** and **Appendix D**) weed management program (Section **5.3.3** and **Appendix F**) for Declared weeds in Offset Area(s) resulting in: • Reduced cover and diversity of existing perennial/woody weed species, year on year. • 75% or more reduction in existing perennial Declared weeds from INTG Offset Area by year 10. • No new weed species detected.	Baseline weed assessment undertaken in Year 1 of OMP. Weed control implemented as per schedule in Section **5.3.3** and **Appendix F** .	Possible	Minor	Low	• Increased cover of perennial / woody weed species observed during annual monitoring. • Control follow up finds that weed control method has not been successful. • Woody weeds remain in INTG Offset Area in Year 10 of OMP implementation. • New weed species detected in Offset Area.	Monitoring Program (in accordance with OMP). Annual follow up (at a minimum) of all weed control treatments undertaken within INTG Offset Area.	• Implement targeted weed control actions as soon as possible following baseline survey. • If weed management does not achieve desired outcomes (through manual removal, herbicide, biocontrol), engage specialist advice (i.e. Landscape Board or PIRSA). • Immediate targeted removal of new species, if detected. • Investigate source of introduction.

Risk Event or Circumstance	Risk Description (e.g. Cause and Effect)	Initial Risk Rating			Risk Mitigation Strategy(ies)	Timing, Frequency or Duration	Residual Risk Rating			Management Trigger(s)	Monitoring Mechanism(s)	Corrective Action(s)
		L	C	R			L	C	R			
												• Implement or strengthen biosecurity measures (vehicle hygiene protocols).
Pest herbivore increase or incursion	Increase in the abundance or diversity of pest animal species including pest herbivores due to inadequate implementation of the pest herbivore control program.	Possible	Minor	Low	Implementation of annual pest herbivore (and overabundant native herbivore) control program (Section **5.3.4** and **Appendix G**).	Year 2, ongoing for life of Project.	Possible	Minor	Low	Higher than 25% increase in detection / capture / culling of pest herbivores (i.e. goats, hares, rabbits and kangaroos) over time. No detection of new pest herbivore species.	Recorded through annual pest management activities.	• Increased intensity, frequency and variety of pest control measures implemented. • Engage with neighbouring landholders to coordinate pest management. • Obtain specialist advice (i.e. Landscape Board or PIRSA).
Unplanned fire	Damage to INTG Offset Area or infrastructure (such as fencing) caused by unplanned fire or through unauthorized clearing by CFS for establishing fire breaks to contain fire.	Major	Unlikely	High	Implement fire risk mitigation measures and develop a bushfire management plan for the INTG Offset Area (or broader [redacted] Offset Site) (**Section 5.3.5**). Implement bushfire management plan including (but not limited to) maintenance of established gates, roads and fire tracks and implementation of grassland management to reduce fuel load.	Year 1, and ongoing.	Major	Rare	Medium	Unplanned fire event impacts INTG Offset Area.	Recorded if / when event occurs on an as needed basis.	Report to DCCEEW as soon as possible, within one week (7 days) of event occurring. Other corrective action dependent on damage incurred. Likely to include: • Incident Report to establish cause of unplanned fire. • Review of Bushfire Management Plan and bushfire prevention activities. • Immediate repairs of critical infrastructure such as fencing. • Increased frequency of Ecological Monitoring Program. • Development of Rehabilitation Plan (if required).
Unauthorised personnel entry / damage or vandalism to the property.	Unauthorised personnel (e.g., trespassers, vandals, poachers, or recreational users) enter the offset property without permission, resulting in damage to infrastructure (fences, monitoring equipment), disturbance or destruction of native vegetation, introduction of weeds or pathogens, harm to wildlife, theft, or interference with ongoing management activities. This compromises the ecological integrity of the offset, and potentially breaches legal or regulatory requirements.	Possible	Moderate	Medium	Install and maintain secure fencing and lockable gates at access points. Erect clear signage indicating private property and penalties for unauthorized entry. Report suspicious activity to law enforcement. Ensure access to the property is limited (i.e. keys supplied to authorized personnel only).	Year 1 and ongoing	Unlikely	Moderate	Low	Evidence of entry / damage identified. Suspicious activity reported.	Quarterly fence condition checking. Recorded if / when event occurs on an as needed basis.	Repair damage, investigate breach, report to authorities if required. Strengthen controls (i.e. install surveillance) and update management plan if required.

Risk Event or Circumstance	Risk Description (e.g. Cause and Effect)	Initial Risk Rating			Risk Mitigation Strategy(ies)	Timing, Frequency or Duration	Residual Risk Rating			Management Trigger(s)	Monitoring Mechanism(s)	Corrective Action(s)
		L	C	R			L	C	R			
Risks Associated with Securing the Offset												
Inability for offset land to be protected in perpetuity. Risk event is due to challenges with the required timing of offset land purchase and project Financial Investment Decision (FID) leading to agreement that 'securing' offsets occurs prior to the HA taking effect. This is based on Neoen's Financial Investment Decision timing and the length of time to establish a Heritage Agreement (HA), noting that establishing a HA could take up to 12 months, or likely 6 months.	Neoen have broken ground on the GNWF Project resulting in impacts to MNES having met the agreed definition of 'securing' offsets and NVB accepting HA application, but then HA doesn't get enacted at the offset site.	Possible	Major	High	Neoen establishes option to purchase, lease agreements, or standard contracts with extended settlement periods with land holders for the proposed offset property(ies) and provide agreements/contracts to DCCEEW once in place. These will outline Neoen's exclusive rights to purchase land during the defined period of the agreement. Submit HA application to Native Vegetation Branch (NVB) for the proposed offset property following Financial Investment Decision. Neoen execute right to purchase/lease or financial close of the offset property prior to breaking ground for the respective stage and thereby have secured legal tenure of the offset land before breaking ground. Confirmation via email from NVB that provides acceptance of HA (Step 2a in the defined process provided by NVB, refer Section **5.2.2**) upon Neoen meeting criteria for the HA application process to remove the administrative process of registering the HA with the South Australian Land Titles Office (Land Services SA) from the Project's critical path. Reassurance from NVB that once NVB have accepted the HA application at Step 2a, as delegates of the Minister and NVC, the HA is effectively a 'done deal'. Neoen and NVB will monitor each subsequent step in the process for enacting Heritage Agreement and actively manage those to ensure process is progressing as usual. Neoen will expedite inclusion of and enacting NV edits to the General Registry Office (GRO) Plan (LSSA 2025) and HA MP.	As soon as possible upon approval of the OMP by the Department. Ongoing, as required until HA established.	Unlikely	Moderate	Low	The triggers for this risk are known: the award of the HA over the offset land parcel(s) will delay contractors and have significant financial implications for Neoen, and thus the mitigations are required to be implemented.	Ensure project development schedule is reviewed and updated with accurate information as soon as any change occurs. Regular 'check-in's' with the NVB / NVC regarding progress of the HA application and expected date of signing by the Minister for Climate, Environment and Water (SA). Updates to DCCEEW regarding the HA process as any progress is made.	Keep relevant stakeholders, including DCCEEW, informed of progress of HA application. Confirmation with DCCEEW that DCCEEW is satisfied with the information provided by NVB regarding the HA application, including a supporting letter from NVB. If DCCEEW, at any stage, become unsatisfied that the HA will be awarded over the proposed offset sites (including full financial investment from Neoen).

Risk Event or Circumstance	Risk Description (e.g. Cause and Effect)	Initial Risk Rating			Risk Mitigation Strategy(ies)	Timing, Frequency or Duration	Residual Risk Rating			Management Trigger(s)	Monitoring Mechanism(s)	Corrective Action(s)
		L	C	R			L	C	R			
Risks Associated with Staging the Offset												
Inability to secure adequate offsets at time of 'staged construction' (i.e. deferred offset acquisition for stage 2 construction.	If Neoen's Stage 1 (or Stage 2) offset falls through (e.g. due to change in availability of land or expiry of agreement, or breach of contract from landholder), resulting in Neoen having to find a new Stage 1 or 2 offset before commencing works at that respective stage, requiring DCCEEW to resource approval of the new Stage 1 or Stage 2 Offset Management Plan.	Possible	Minor	Low	The full offset requirement for the GNWF is outlined in this OMP (**Section 2.4**) and will be approved by DCCEEW prior to breaking ground for either stage of construction. If either of the Stage 1 or 2 offset emerged as no longer viable, Neoen would carry schedule risk to find a new suitable offset site, develop a revised OMP and ensure that this site and the proposed OMP was acceptable to DCCEEW. Neoen have some contingencies in place for alternate sites such as utilising Stage 2 Offset for Stage 1 and potentially supplementing with 92 Civilisation Gate Road as a potential offset site as well as increasing the Other Compensatory Measures component to meet the full obligations for the relevant stage. Neoen would need to ensure that this all occurred prior to breaking ground on the respective stage. Offset sites will be secured prior to breaking ground for any stage of construction (i.e. Stage 1 = 48 WTGs, Stage 2 = 51 WTGs). Neoen are in the process of establishing land purchase or lease agreements or standard land purchase contracts with landholders for all defined offset sites, including [redacted] Neoen will provide evidence of these agreements to DCCEEW and exercise the right to purchase on these agreements following FID for each stage as part of securing all offset sites. This will ensure that subsequent offset stages are viable and will proceed following financial settlement for the respective stage with Neoen. Neoen will seek to maximise the term of the option agreements to reduce risk of Stage 2 FID occurring after land option has expired. Neoen will also seek to build in financial penalty for landholder in agreement, should they breach the agreement. Offsets for each stage of construction will be commensurate, or in excess of, impacts rising to MNES from that stage of construction (i.e. specific areas of impact for PBTL to be offset as outlined in the OMPs, unless excess offset has already been achieved by a prior offset stage.	As soon as possible, upon determining that Offset Site for respective stage is no longer viable, and prior to breaking ground for the respective stage, or as otherwise negotiated with DCCEEW.	Unlikely	Minor	Low	Offset site not secured for the planned stage of construction.	Monthly updates to DCCEEW on status and key terms of options to purchase with landholders for the offsets. Active audits of construction footprints for each stage of construction to ensure that disturbance does not go beyond that agreed for each stage of construction.	No construction of subsequent stages of the GNWF to commence until Offset sites which compensate for the impacts of that stage are secured. Notification to DCCEEW (and written approval) once subsequent offset sites have been secured, prior to commencing construction of that stage. Identify And secure adequate offset(S) in a timely manner.

Risk Event or Circumstance	Risk Description (e.g. Cause and Effect)	Initial Risk Rating			Risk Mitigation Strategy(ies)	Timing, Frequency or Duration	Residual Risk Rating			Management Trigger(s)	Monitoring Mechanism(s)	Corrective Action(s)
		L	C	R			L	C	R			
Construction contractors disturb ground beyond the delineated Stage 1 or Stage 2 construction area (i.e. beyond area with approved offset in place).	Clearance of native vegetation and potentially flora MNES and/or MNES habitat that has not been adequately offset. Injury or fatality of fauna MNES. This could be due to confusion of scope boundaries between Stage 1 and Stage 2.	Possible	Major	High	A CEMP and INTG MP (approved by DCCEEW) will ensure that on-ground construction and development occurs in accordance with updated requirements as set out by DCCEEW. Construction boundaries associated with staging of the Project to be clearly delineated. Signage and other physical delineation of interfaces between stages of construction will be implemented. Detailed design for Stage 2 would not be included in the design for Stage 1, and thus there would be no reason for contractors to extend into the Stage 2 areas during construction of Stage 1. The interface between Stage 1 and Stage 2 has intentionally included very limited number of physical interface points (4 interfaces), and physical boundaries will be erected at these interface points. Implementation of existing risk mitigation strategies, as well as additional risk mitigation strategies specifically relevant to staged construction, which will be outlined in the updated CEMP and INTG MP and include clear delineation of no-go areas during staged construction, such as: • Where the Disturbance Footprint intersects with, or comes within proximity to, key habitats supporting EPBC species or communities, identify and indicate agreed construction footprint boundary (using spatial mapping as a minimum) to avoid unintentional disturbance outside of defined construction areas. Signage or other physical indication will be used where appropriate. • Inductions: All staff and contractors will complete a detailed, site-specific induction which provides an overview of INTG TEC, its legislative significance and potential impacts on INTG TEC as well as management measures associated with protection of INTG TEC, including spatial areas in relation to staging of construction (i.e. clear delineation between stage 1 and stage 2 construction). • Areas of TEC will be provided as spatial data (clearly defined as construction stage 1 and construction stage 2) and clearly marked on Site Office maps and addressed at daily pre-start meetings when work is required to be undertaken within the vicinity of mapped TECs. Specific INTG management areas are provided in the INTG MP	Prior to commencement of construction, and ongoing throughout construction.	Unlikely	Moderate	Low	Impacts / ground disturbance to areas outside of the approved Stage 1 construction area.	Audits of Disturbance Footprint boundary to be undertaken post disturbance. Identification of impacts to key habitats to be undertaken by suitably qualified ecologist to quantify the extent.	Stop works until all subsequent offset stages are secured and in place. Reporting and rehabilitation measures as outlined in the CEMP, ITNG MP and PBTL MP (e.g. internal reporting mechanisms as outlined by the Contractor and Neoen, external reporting mechanisms to DCCEEW and NV Branch (where applicable).

Risk Event or Circumstance	Risk Description (e.g. Cause and Effect)	Initial Risk Rating			Risk Mitigation Strategy(ies)	Timing, Frequency or Duration	Residual Risk Rating			Management Trigger(s)	Monitoring Mechanism(s)	Corrective Action(s)
		L	C	R			L	C	R			
Initial Risk Rating: L = Likelihood, C = Consequence, R = Risk.												

8.0 References

BOM. (2025a). *Climate statistics for Australian locations: Clare High School 021131*. Retrieved from Australian Government Bureau of Meteorology: https://www.bom.gov.au/jsp/ncc/cdio/cvg/av

BOM. (2025b, November 19). *Bureau of Meteorology*. Retrieved from Daily Rainfall Statistics for Australian Locations: Mount Bryan East 21034: https://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=136&p_display_type=dailyDataFile&p_startYear=&p_c=&p_stn_num=021034

Commonwealth of Australia. (2018). *Guidelines for biological survey and mapped data*. Department of the Environment and Energy (DotEE). Canberra: Australian Government. Retrieved from https://www.agriculture.gov.au/sites/default/files/documents/guidelines-biological-survey-mapped-data.pdf

Croft, S. J., Pedler, J. A., & Milne, T. I. (2007). *Bushland Condition Monitoring Manual – Northern Agricultural & Yorke Peninsula Regions*. Adelaide: Nature Conservation Society of South Australia.

DAWE. (2021). *Guide to providing maps and boundary data for EPBC Act projects*. Canberra: Commonwealth Government Department of Agriculture, Water and the Environment.

DAWE. (2021). *Guide to providing maps and boundary data for EPBC Act projects*. Canberra: Department of Agriculture, Water and the Environment.

DCCEEW. (2024). *Environmental management plan guidelines*. Department of Climate Change, Energy, the Environment and Water. Canberra: Commonwealth of Australia, Department of Climate Change, Energy, the Environment and Water. Retrieved from https://www.dcceew.gov.au/sites/default/files/documents/environmental-management-plan-guidelines.pdf

DCCEEW. (2025). *Species Profile and Threats Database (SPRAT)*. Retrieved from Australian Government: Department of Climate Change, Energy, The Environment and Water: https://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl

Department for Transport, Urban Planning and the Arts. (2000). *Native Grasslands - Mid North Region*. Adelaide: Government of South Australia Department for Transport, Urban Planning and the Arts.

Department of the Environment and Water Resources. (2007). *EPBC Act policy statement 3.7 - Peppermint Box (Eucalyptus odorata) Grassy Woodland of South Australia and Iron-grass Natural Temperate Grassland of South Australia*. Canberra: Australian Government. Retrieved from http://www.environment.gov.au/epbc/publications/peppermint-box-iron-grass-policy.html

DEW. (2025b). *Protecting vegetation with a Heritage Agreement*. Adelaide: Department for Environment and Water. Retrieved September 16, 2025, from https://cdn.environment.sa.gov.au/environment/docs/Heritage-Agreement-FAQ-September-2022.pdf

DEW. (2025c). *Heritage Agreement Policy.* Adelaide: Department for Environment and Water. Retrieved September 16, 2025, from https://cdn.environment.sa.gov.au/environment/images/Heritage-Agreement-Policy.pdf

DEWHA. (2008). *Approved Conservation Advice for Iron-grass Natural Temperate Grassland of South Australia*. Canberra: Department of the Environment, Water, Heritage and the Arts. Retrieved from http://www.environment.gov.au/biodiversity/threatened/communities/pubs/37-conservation-advice.pdf

DEWHA. (2008). *Threat abatement plan for competition and land degradation by unmanaged goats*. Canberra: Commonwealth of Australia, Department of the Environment, Water, Heritage and the Arts. Retrieved from https://www.dcceew.gov.au/sites/default/files/documents/tap-goat-report.pdf

DEWHA. (2011). Peppermint Box Grassy Woodland and Iron-grass Natural Temperate Grassland - map of ecological communities.

DEWNR. (Undated (a)). [redacted] Adelaide: Government of South Australia Department of Environment, Water and Natural Resources, DEWNR Soil and Land Program.

DEWNR. (Undated (b)). [redacted] Adelaide: Government of South Australia, Department of Environment, Water and Natural Resources.

DEWNR. (Undated (c)). [redacted] Adelaide: Government of South Australia, Department of Environment, Water and Natural Resources.

DEWR. (2007). *EPBC Act Policy Statement 3.7: Peppermint Box (Eucalyptus odorata) Grassy Woodland of South Australia and Iron-grass Natural Temperate Grassland of South Australia*. Government of Australia, Department of the Environment and Water Resources: Canberra.

DotE. (2013). *Significant Impact Guidelines 1.1 - Matters of National Environmental Significance*. Canberra: Commonwealth of Australia, Department of the Environment.

DotEE. (2016). *Threat abatement plan for competition and land degradation by rabbits*. Australian Government, Department of the Environment and Energy. Canberra: Commonwealth of Australia, Department of the Environment and Energy. Retrieved from https://www.dcceew.gov.au/sites/default/files/documents/tap-rabbit-2016.pdf

DotEE. (2017). *Threat Abatement Plan for predation, habitat degradation, competition and disease transmission by feral pigs (Sus scrofa)*. Australian Government, Department of the Environment and Energy. Canberra: Commonwealth of Australia, Department of Environment and Energy. Retrieved from https://www.dcceew.gov.au/sites/default/files/documents/tap-feral-pigs-2017.pdf

DotEE. (2018). *Threat abatement plan for disease in natural ecosystems caused by Phytophthora cinnamomi*. Canberra: Commonwealth of Australia, Department of the Environment and Energy. Retrieved from https://www.dcceew.gov.au/sites/default/files/documents/tap-phytophthora-cinnamomi-2018.pdf

DSEWPaC. (2011). *Farming and nationally protected Iron-grass Natural Temperate Grassland*. Canberra: Department of Sustainability, Environment, Water, Population and Communities. Retrieved from http://www.environment.gov.au/epbc/publications/iron-grass-factsheet.html

DSEWPaC. (2011). *Farming and protecting the Critically Endangered Iron-grass Natural Temperate Grassland*. Canberra: Australian Government Department of Sustainability, Environment, Water, Population and Communities.

DSEWPaC. (2012a). *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy*. Canberra: Australian Government Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC).

DSEWPaC. (Undated). *How to use the Offsets Assessment Guide*. Canberra: Department of Sustainability, Environment, Water, Population and Communities.

EBS Ecology. (2022). *Goyder North Wind Farm Flora and Fauna Assessment*. Adelaide: Report to Neoen, by EBS Ecology.

EBS Ecology. (2023a). *Goyder North – Ecological Constraints Mapping*. Adelaide: Letter report to Neoen by EBS Ecology.

EBS Ecology. (2023b). *Goyder North – Ecological Constraints Mapping*. Adelaide: Letter report to Neoen by EBS Ecology.

EBS Ecology. (2023b). *Goyder North Renewable Energy Facility and Overhead Transmission Line Ecological Risk Assessment Summary*. Adelaide: Report to Neoen by EBS Ecology.

EBS Ecology. (2023c). *Goyder North Renewable Energy Facility and Overhead Transmission Line Ecological Risk Assessment Summary*. Adelaide: Report to Neoen by EBS Ecology.

Hyde, M. (1995). *The Temperate Grasslands of South Australia: Their Composition and Conservation Status*. Sydney: World Wide Fund for Nature Australia.

LSSA. (2025, September 16). *Glossary of Property Terms*. Retrieved from Land Services SA: https://www.landservices.com.au/support-materials-and-resources/glossary-of-property-terms

Mid North Grasslands Working Group. (Undated). *How to make money out of grass - A farmer's guide to grazing managment of native pastures in the Northern Agricultural Districts of SA*. Mid North Grasslands Working Group.

Schofield, J. (2006). *Pgymy Bluetonge Lizards: Best Practice Management Guidelines for Landholders*. Adelaide: Report for the Department for Environment and Heritage.

Specht, R. L. (1972). *The Vegetation of South Australia* (2nd Edition ed.). Adelaide: Government Printer.

Threatened Species Scientific Committee. (2007). *Commonwealth Listing Advice on Iron-grass Natural Temperate Grassland of South Australia*. Canberra: Commonwealth of Australia. Retrieved from http://www.environment.gov.au/biodiversity/threatened/communities/pubs/l-effusa.pdf.

Turner, J. (2012). *National Recovery Plan for the Irongrass Natural Temperate Grassland of South Australia ecological community 2012*. Adelaide: Department of Environment and Natural Resources, South Australia. Retrieved from http://www.environment.gov.au/biodiversity/threatened/recovery-plans/national-recovery-plan-iron-grass-natural-temperate-grassland-sa.

Umwelt. (2025a). *EPBC 2024/09229 Goyder North Wind Farm EPBC Offset Strategy*. Adelaide, South Australia: Umwelt (Australia) Pty Ltd.

Umwelt. (2025b). *Goyder North Stage 1 and Stage 2 Wind Farm - Iron-grass Natural Temperate Gassland of South Australia Threatened Ecological Community Assessment.* Adelaide: Report prepared for Neoen by Umwelt Australia Pty Ltd.

Umwelt. (2025b). *Iron-grass Natural Temperate Grassland Threatened Ecological Community Management Plan.* Adelaide: Report to Neoen by Umwelt (Australia) Pty Ltd.

Umwelt. (2025d). *Goyder North Stage 1 and Stage 2 Native Vegetation Clearance Data Report.* Adelaide: Report to Neoen by Umwelt (Australia) Pty Ltd.

Umwelt. (2025e). *Goyder North Wind Farm: Iron-grass Natural Temperate Grassland of South Australia Threatened Ecological Community Assessment.* Adelaide: Report to Neoen by Umwelt (Australia) Pty Ltd.

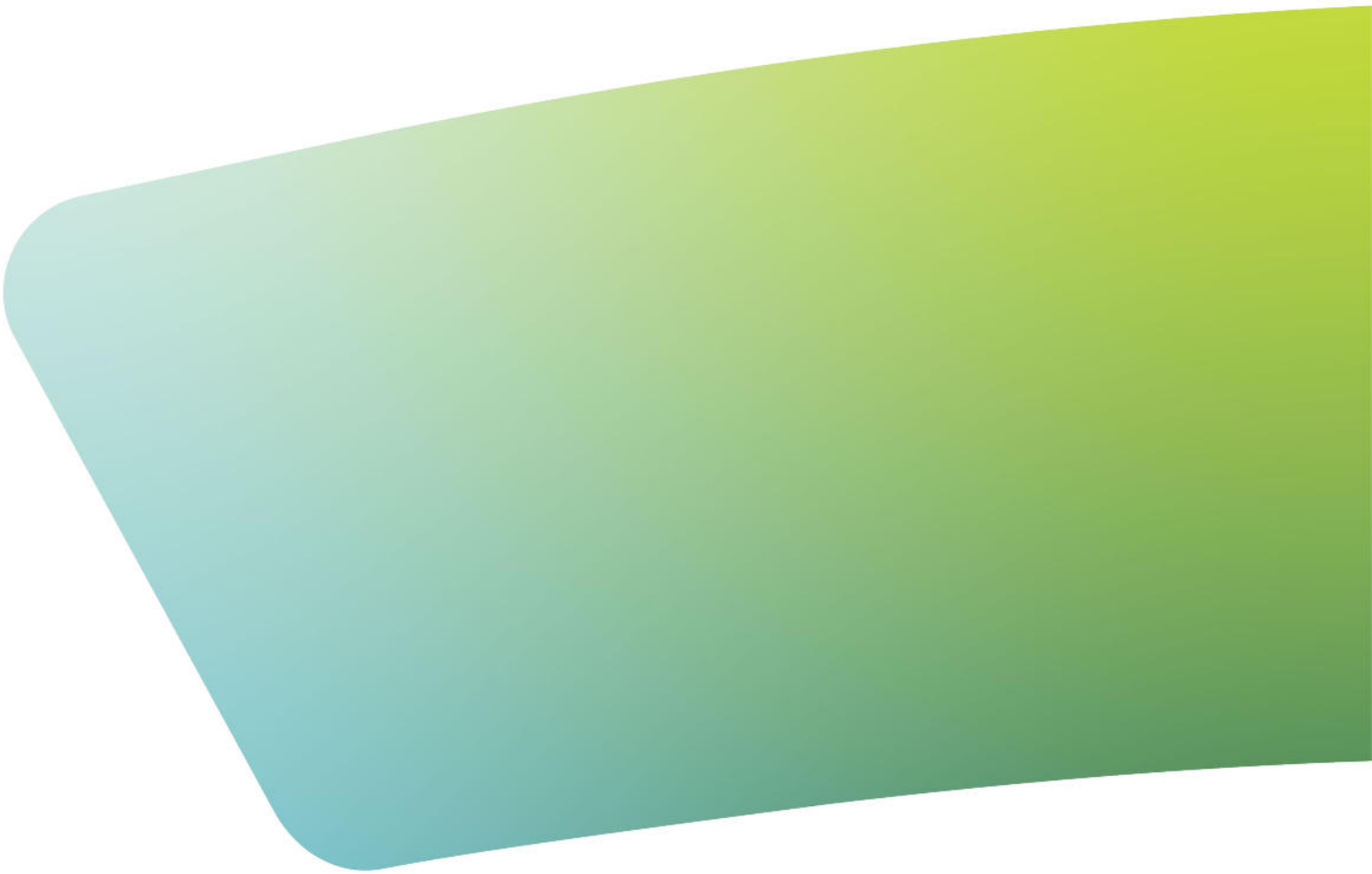
Umwelt. (2025f - in draft). *Pygmy Blue-tongue Lizard Offset Management Plan - Stage 1: [redacted] Goyder North Wind Farm (EPBC 2024/09929).* Adelaide: Umwelt Australia Pty Ltd.

Umwelt. (2025g). *Goyder North Wind Farm Ecological Assessment Report.* Adelaide: Report to Neoen by Umwelt (Australia) Pty Ltd.

Umwelt. (2025h - in draft). *Goyder North Wind Farm Construction Environmental Management Plan.* Adelaide: Report to Neoen by Umwelt (Australia) Pty Ltd.

Appendix A

[redacted] Field Survey Flora Species List



umwelt

Scientific Name	Common Name	EPBC Act	NPW Act	Declared
Native				
Acacia pycnantha	Golden Wattle			
Acaena echinata	Sheep's Burr			
Acaena echinata	Sheep's Burr			
Allocasuarina verticillata	Drooping Sheoak			
Amyema sp.	Mistletoe			
Anthosachne scabra	Native Wheat-grass			
Aristida behriana	Brush Wire-grass			
Arthropodium fimbriatum	Nodding Vanilla-lily			
Arthropodium strictum	Common Vanilla-lily			
Asperula conferta	Common Woodruff			
Atriplex semibaccata	Berry Saltbush			
Atriplex stipitata	Mallee Saltbush			
Atriplex suberecta	Sprawling Saltbush			
Austrostipa blackii	Crested Spear-grass			
Austrostipa drummondii	Cottony Spear-grass			
Austrostipa elegantissima	Feather Spear-grass			
Austrostipa eremophila	Rusty Spear-grass			
Austrostipa nitida	Balcarra Spear-grass			
Austrostipa scabra group	Falcate-awn Spear-grass			
Austrostipa scabra ssp.	Rough Spear-grass			
Austrostipa sp.	Spear-grass			
Boerhavia dominii	Tar-vine			
Brachyscome ciliaris	Variable Daisy			
Bursaria spinosa ssp. *spinosa*	Christmas Bush			
Bursaria spinosa	Sweet Bursaria			
Calostemma purpureum	Garland Lily			
Cheilanthes lasiophylla	Woolly Cloak-fern			
Cheilanthes tenuifolia	Curly Fern			
Chenopodium desertorum	Frosted Goosefruit			
Chrysocephalum apiculatum	Common Yellow Button			
Chrysocephalum semipapposum	Clustered Everlasting			
Clematis microphylla	Old Man's Beard			
Clematis leptophylla	Fine-leaved Clematis			
Convolvulus angustissimus	Australian Bindweed			
Convolvulus remotus	Grassy Bindweed			
Cotula australis	Australian Water buttons			
Cryptandra amara	Long-flower Cryptandra		Rare	
Cymbonotus preissianus	Australian Bear's ear			
Cymbopogon ambiguus	Lemon-scented Grass			
Daucus glochidiatus	Australian Carrot			
Dodonaea viscosa	Hop Bush			
Einadia nutans ssp.	Climbing Saltbush			
Enchylaena tomentosa var.	Ruby Saltbush			
Enneapogon nigricans	Black-head Grass			
Eryngium ovinum	Blue devil		Vulnerable	

Scientific Name	Common Name	EPBC Act	NPW Act	Declared
Eucalyptus leucoxylon ssp. *pruinosa*	Inland South Australian Blue Gum			
Eucalyptus odorata	Peppermint Box			
Eucalyptus porosa	Black Mallee Black			
Euphorbia drummondii				
Galium gaudichaudii	Rough bedstraw			
Geranium potentilloides var. potentilloides	Downy Geranium			
Geranium retrorsum	Grassland Geranium			
Glycine rubiginosa	Twining Glycine			
Gonocarpus tetragynus	Common Raspwort			
Gonocarpus tetragynus	Common Raspwort			
Goodenia pinnatifida	Cut-leaf Goodenia			
Hydrocotyle laxiflora	Stinking Pennywort			
Hydrocotyle sp.	Pennywort			
Isotoma petraea	Rock Isotome			
Lagenophora gunniana	Coarse Bottle-Daisy			
Leptorhynchos squamatus	Scaly Buttons			
Leptorhynchos squamatus ssp. *squamatus*	Scaly Buttons			
Lomandra densiflora	Soft Tussock Mat-rush			
Lomandra effusa	Scented Mat-rush			
Lomandra multiflora ssp.	Many-flower Mat-rush			
Lycium australe	Australian Boxthorn			
Maireana aphylla	Cotton Bush			
Maireana brevifolia	Short-leaf Bluebush			
Maireana enchylaenoides	Wingless Fissure-plant			
Maireana georgei	Satiny Bluebush			
Maireana rohrlachii	Rohrlach's Bluebush		Rare	
Melicytus angustifolius ssp. *divaricatus*	Gruggly Bush			
Minuria sp.	Minuria			
Oxalis perennans	Native Sorrel			
Phyllanthus sp.	Spurge			
Pimelea sp.				
Plantago gaudichaudii	Colony Plantain		Rare	
Poa sp.				
Ptilotus sp.				
Ptilotus spathulatus	Pussy-tails			
Rhagodia parabolica	Mealy Saltbush			
Rhodanthe pygmaea	Pigmy Daisy			
Rumex brownii	Slender Dock			
Rumex dumosus	Wiry Dock		Rare	
Rytidosperma caespitosum	Common Wallaby-grass			
Rytidosperma setaceum	Small-flower Wallaby-grass			
Salsola australis	Buckbush			
Scleranthus pungens	Prickly Knawel			
Scleranthus sp.	Knawel			

Scientific Name	Common Name	EPBC Act	NPW Act	Declared
Senecio anethifolius	Feathery Groundsel			
Sida corrugata var.	Corrugated Sida			
Stackhousia sp.	Candlestick			
Vittadinia blackii	Narrow-leaf New Holland Daisy			
Vittadinia cuneata var.	Fuzzy New Holland Daisy			
Vittadinia gracilis	Woolly New Holland Daisy			
Vittadinia megacephala	Giant New Holland Daisy			
Vittadinia sp.	New Holland Daisy			
Wahlenbergia luteola	Yellow-wash Bluebell			
Wahlenbergia sp.	Native Bluebell			
Wurmbea sp.	Star-lily			
Myoporum parvifolium	Creeping boobialla		Rare	
Introduced / Exotic				
Aira sp.	Hair-grass			
Arctotheca calendula	Cape Weed			
Asphodelus fistulosus	Onion Weed			
Avena barbata	Bearded Oat			
Bromus diandrus	Great Brome			
Bromus hordeaceus	Soft Brome Grass			
Bromus rubens	Red Brome			
Carduus tenuiflorus	Slender-flower thistle			
Carrichtera annua	Ward's Weed			
Carthamus lanatus	Saffron Thistle			
Centaurea solstitialis	Star thistle			
Convolvulus arvensis	Field Bindweed			Yes
Crataegus monogyna	Hawthorn			Yes
Cynara cardunculus ssp. *flavescens*	Artichoke Thistle			Yes
Echium plantagineum	Salvation Jane			Yes
Erodium cicutarium	Cut-leaf Heron's-bill			
Galium aparine	Cleavers			
Holcus lanatus	Yorkshire Fog			
Hordeum vulgare	Barley			
Hypochaeris glabra	Smooth Cat's Ear			
Hypochaeris radicata	Flatweed			
Lactuca serriola	Prickly lettuce			
Lepidium africanum	Common Peppercress			
Linum strictum ssp. *strictum*	Upright Yellow Flax			
Lolium rigidum	Annual ryegrass			
Lycium ferocissimum	African Boxthorn			Yes
Marrubium vulgare	Horehound			Yes
Medicago polymorpha	Burr-medic			
Medicago truncatula	Barrel Medic			
Moraea setifolia	Thread Iris			
Moraea sp.				
Neatostema apulum	Hairy Sheepweed			
Petrorhagia dubia	Hairy Pink			

Scientific Name	Common Name	EPBC Act	NPW Act	Declared
Reseda lutea	Cut-leaf Mignonette			Yes
Romulea sp.	Onion-grass			
Salvia verbenaca var.	Wild Sage			
Sisymbrium erysimoides	Smooth Mustard			
Sisymbrium irio	London Mustard			
Sisymbrium orientale	Indian Hedge Mustard			
Sisymbrium sp.	Wild Mustard			
Solanum nigrum	Black Nightshade			
Sonchus oleraceus	Common Sow-thistle			
Spergularia rubra	Red Sandspurry			
Trifolium angustifolium	Narrow-leaf Clover			
Trifolium arvense var. arvense	Hare's-foot Clover			
Trifolium repens	White Clover			
Vulpia sp.	Fescue			
Romulea sp.	Onion-grass			

Appendix B

Desktop Assessment Results

Scientific Name	Common Name	EPBC Act[1]	NPW Act[1]	Bioregional Status[1]	PMST Likelihood	Source[2]	Number of Records	Last Record (Year)
TEC								
Iron-grass Natural Temperate Grassland of South Australia		CE			Likely	2, 3		
Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia		CE			Likely	2, 3		
FLORA								
Acacia glandulicarpa	Hairy-pod Wattle	VU			May	2		
Acacia menzelii	Menzel's Wattle	VU			May	2		
Acacia trineura	Three-nerve Wattle		EN			1	1	1900
Austrostipa gibbosa	Swollen Spear-grass		RA			1	1	2022
Brachyscome ciliaris var. *subintegrifolia*			RA	NE		1	2	1994
Caladenia tensa	Greencomb Spider-orchid, Rigid Spider-orchid	EN			Likely	2		
Codonocarpus pyramidalis	Slender Bell-fruit, Camel Poison	VU			Likely	2		
Cryptandra campanulata	Long-flower Cryptandra		RA	RA		1, 3	2	2022
Cullen parvum	Small Scurf-pea		VU	LC		1	1	1999
Dodonaea procumbens	Trailing Hop-bush	VU			May	2		
Dodonaea subglandulifera	Peep Hill Hop-bush	EN			May	2		
Eremophila subfloccosa ssp. *glandulosa*	Green-flower Emubush		RA	EN		1	1	1993
Eucalyptus bicostata	Southern Blue Gum		VU	EN		1	2	2008
Festuca benthamiana	Bentham's Fescue		RA	VU		1	5	1993
Frankenia cupularis			RA	RA		1	1	1993
Lepidium pseudotasmanicum	Shade Peppercress		VU	VU		1	7	1994
Maireana excavata	Bottle Fissure-plant		VU	RA		1	3	2006
Maireana rohrlachii	Rohrlach's Bluebush		RA	RA		1	2	2022
Myoporum parviflorum	Creeping Boobialla		RA			3	1	2025
Olearia pannosa ssp. *pannosa*	Silver Daisy-bush	VU	VU	EN	Known	1, 2	3	1993
Philotheca angustifolia ssp. *angustifolia*	Narrow-leaf Wax-flower		RA	RA		1	1	1998
Poa drummondiana	Knotted Poa		RA	RA		1	2	2004
Pterostylis despectans	Mt Bryan Greenhood	EN	EN	EN	Likely	1, 2	299	2007

Scientific Name	Common Name	EPBC Act[1]	NPW Act[1]	Bioregional Status[1]	PMST Likelihood	Source[2]	Number of Records	Last Record (Year)
Pterostylis xerophila	Desert Greenhood	VU			May	2		
Ptilotus erubescens	Hairy-tails		RA	RA		1	1	2018
Rhodanthe anthemoides	Chamomile Everlasting		EN	CR		1	15	2008
Rumex dumosus	Wiry Dock		RA	VU		1, 3	3	2020
Rytidosperma tenuius	Short-awn Wallaby-grass		RA	NE		1	2	2018
Senecio megaglossus	Superb Groundsel	VU			Likely	2		
Swainsona behriana	Behr's Swainson-pea		VU	EN		1	1	2022
Swainsona pyrophila	Yellow Swainson-pea	VU			May	2		
Veronica decorosa	Showy Speedwell		RA	EN		1	1	1993
FAUNA								
Aphelocephala leucopsis leucopsis	Southern Whiteface	VU		LC	Known	1, 2, 3	16	2022
Aprasia pseudopulchella	Flinders Ranges Worm-lizard	VU			Likely	2		
Ardeotis australis	Australian Bustard		V	EN		1	1	1995
Calidris acuminata	Sharp-tailed Sandpiper	VU, Mi(W)			May	2		
Calidris ferruginea	Curlew Sandpiper	CE, Mi(W)			May	2		
Corcorax melanorhamphos	White-winged Chough		R	RA		1, 3	6	2010
Falco hypoleucos	Grey Falcon	VU			Likely	2		
Falco peregrinus macropus	Peregrine Falcon		R	RA		1	2	2004
Galaxias rostratus	Flathead Galaxias, Beaked Minnow, Flat-headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow	CE			May	2		
Gallinago hardwickii	Latham's Snipe, Japanese Snipe	VU, Mi(W)			May	2		
Grantiella picta	Painted Honeyeater	VU			May	2		
Melanodryas cucullata cucullata	South-eastern Hooded Robin, Hooded Robin (south-eastern)	EN			Likely	2		
Neophema chrysostoma	Blue-winged Parrot	VU			Likely	2		
Nyctophilus corbeni	Corben's Long-eared Bat, South-eastern Long-eared Bat	VU			May	2		
Pedionomus torquatus	Plains-wanderer	EN			May	2		
Rostratula australis	Australian Painted Snipe	EN			May	2		
Stagonopleura guttata	Diamond Firetail	VU			Known	2		

Scientific Name	Common Name	EPBC Act[1]	NPW Act[1]	Bioregional Status[1]	PMST Likelihood	Source[2]	Number of Records	Last Record (Year)
Tiliqua adelaidensis	Pygmy Blue-tongue Lizard, Adelaide Blue-tongue Lizard	EN	E	EN	Known	2, 3	29	2008
MIGRATORY FAUNA								
Actitis hypoleucos	Common Sandpiper	Mi(W)			May	2		
Apus pacificus	Fork-tailed Swift	Mi(M)			Likely	2		
Calidris melanotos	Pectoral Sandpiper	Mi(W)			May	2		
Motacilla cinerea	Grey Wagtail	Mi(T)			May	2		
Motacilla flava	Yellow Wagtail	Mi(T)			May	2		
Pandion haliaetus	Osprey	Mi(W)			May	2		

[1] Conservation Status: CE / CR: Critically Endangered, EN: Endangered; VU; Vulnerable, Mi (M): Migratory Marine, Mi(W): Migratory Wetlands, Mi(T): Migratory Terrestrial; RA: Rare, LC: Least Concern

[2] = NatureMaps, 2 = PMST, 3 = Observed

Appendix C

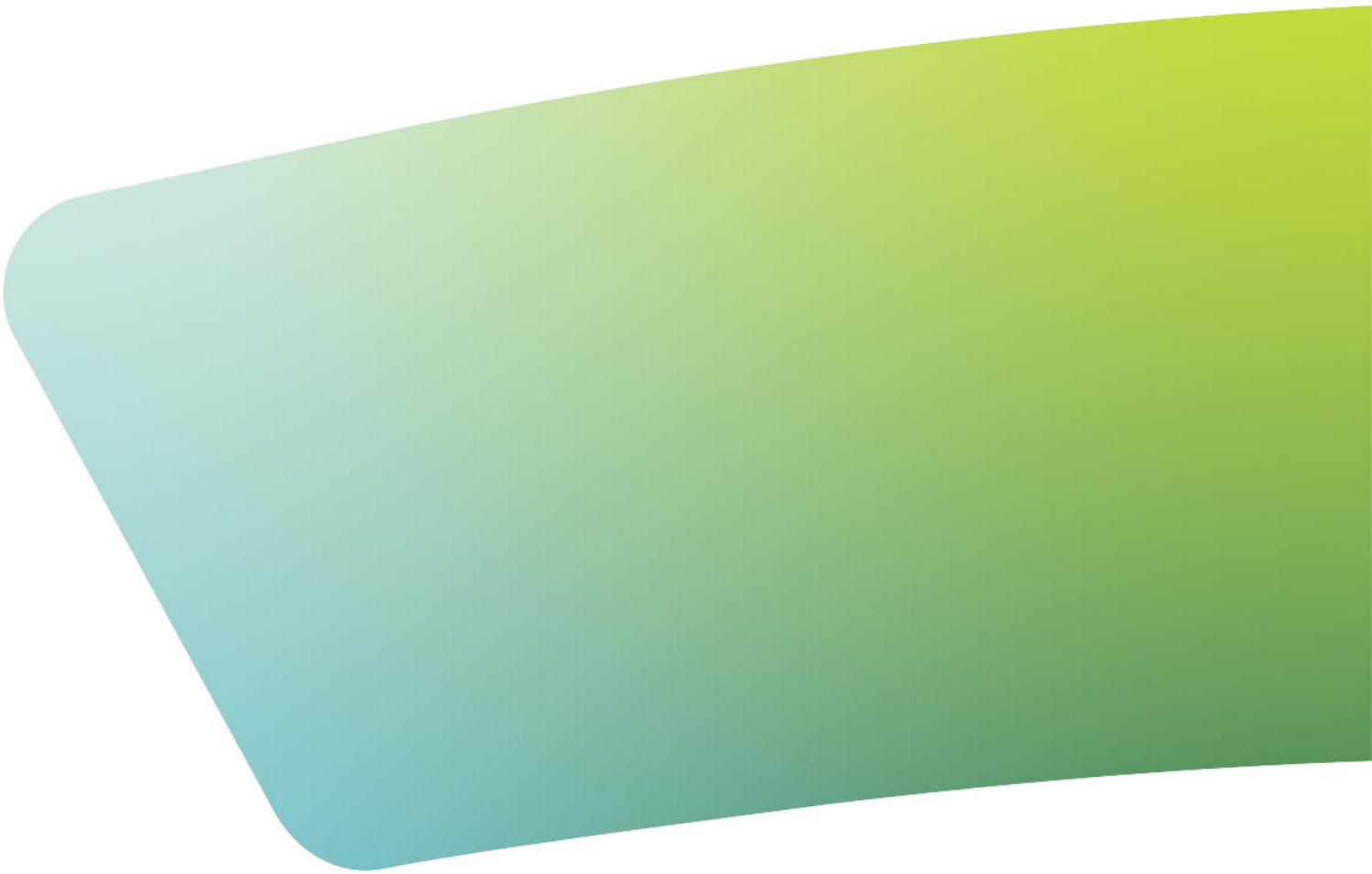
[redacted] Field Survey Fauna Species

Scientific Name	Common Name	EPBC Act	NPW Act	Sum of No. individuals
Acanthiza chrysorrhoa	Yellow-rumped thornbill			35
Anthochaera carunculata	Red Wattlebird			4
Anthus australis	Australasian Pipit			5
Aphelocephala leucopsis leucopsis	Southern Whiteface	Vulnerable		38
Aquila audax audax	Wedge-tailed eagle			8
Artamus cyanopterus	Dusky Woodswallow			4
Barnardius zonarius	Australian Ringneck			9
Cincloramphus cruralis	Brown Songlark			2
Colluricincla harmonica	Grey Shrikethrush			2
Coracina novaehollandiae	Black-faced Cuckooshrike			2
Corcorax melanorhamphos	White-winged Chough		Rare	2
Corvus mellori	Little Raven			7
Dacelo novaeguineae novaeguineae	Laughing Kookaburra			2
Dicaeum hirundinaceum hirundinaceum	Mistletoebird			5
Eolophus roseicapilla	Galah			54
Epthianura albifrons	White-fronted Chat			5
Falco berigora	Brown Falcon			1
Falco cenchroides	Nankeen Kestrel			1
Gavicalis virescens	Singing Honeyeater			1
Gymnorhina tibicen	Australian Magpie			29
Hirundo neoxena neoxena	Welcome Swallow			2
Lalage tricolor	White-winged Triller			6
Macropus (Osphranter) robustus	Euro			1
Macropus (Osphranter) rufus	Red Kangaroo			2
Macropus fuliginosus	Western Grey Kangaroo			76
Malurus leucopterus leuconotus	White-winged Fairywren			2
Melithreptus brevirostris	Brown-headed honeyeater			2
Melopsittacus undulatus	Budgerigar			4
Menetia greyii	Dwarf Skink			2
Ninox novaeseelandiae	Boobook Owl			1
Ocyphaps lophotes lophotes	Crested Pigeon			2
Pardalotus striatus	Striated pardalote			14
Petrochelidon nigricans	Tree Martin			8
Platycercus elegans	Crimson Rosella			2
Psephotus haematonotus	Red-rumped parrot			9
Ptilotula penicillata	White-plumed Honeyeater			4
Smicrornis brevirostris	Weebill			6
Struthidea cinerea cinerea	Apostlebird			4
Taeniopygia guttata castanotis	Zebra Finch			2
Tiliqua adelaidensis	Pygmy Bluetongue Lizard	Endangered	Endangered	3
Tiliqua rugosa	Shingleback Lizard			2
Trichoglossus moluccanus	Rainbow Lorikeet			2
Morethia sp.	(blank)			1

Scientific Name	Common Name	EPBC Act	NPW Act	Sum of No. individuals
Delma sp.	(blank)			1
Barnardius zonarius barnardi	Mallee Ringneck			4
Alauda arvensis	Eurasian Skylark			2
Capra hircus	Goat (Feral Goat)			8
Columba livia	Feral Pigeon			4
Manorina melanocephala	Noisy Miner			2
Passer domesticus	House Sparrow			17
Sturnus vulgaris vulgaris	Common Starling			11

Appendix D

Grazing Management



umwelt

Neoen has engaged with relevant INTG TEC and native grassland experts including the Northern and Yorke Landscape Board and Murraylands and Riverland Landscape Board and anticipate that ongoing engagement will occur as part of this Offset Management Plan, which includes:

- Engagement to undertake an on-ground start-up meeting between relevant experts, Neoen, the on-ground Offset Area land manager (and ecological consultants) to broadly assess the sites to be grazed and provide guidance on the indicators to look for to trigger for various points in the grazing regime (for example to initiate grazing or prevent over grazing).
- Periodic engagement to review monitoring results and provide advice and recommendations.
- Periodic engagement (suggest biennial) for on-ground meetings to assess progress.

Draft Grazing Regime

The grazing regime implemented will be reviewed and revised along with condition monitoring of the PBTL Offset Area, to ensure that they are favourable to maintain and increase (where possible) condition and quality of grassland vegetation. For example, to allow for native grasses and forbs to grow and set seed and for sheep to graze on introduced grasses (e.g. *Avena barbata*), grazing is likely to be limited to periods between May and September, with stocking rates (measured in Dry Sheep Equivalents; DSE) calculated based on the carrying capacity (growth rate and productivity) of each paddock (measured as kgs of dry matter per hectare; kg DM/ha), reviewed on a regular basis. Example calculation and activity datasheets are provided below including:

- Stocking Rate and Available Feed in Each Paddock at Time of Monitoring
- Feed Budget Planning Sheet (Summer Rest Period: 90–120 days)
- Paddock Monitoring Sheet.

The timing of grazing will be dependent on the seasonal conditions, with appropriate timing and indicators for grazing commencement to be based on **Table 5**, and as advised by relevant experts. Given the large size of paddocks currently, additional fencing could be required to reduce the paddock sizes sufficiently to ensure adequate impact of grazers (i.e. dependent on mob size) over the recommended short grazing timeframes.

Unless otherwise approved by the PBTL Recovery Team or other relevant experts, no other domestic grazing stock, such as but not limited to, cattle or horses, will graze the Offset Area, as they are likely to cause a decrease in condition/quality to the soil condition.

To enable regeneration of native grassland species, the following grazing regime is suggested to be implemented:

Short duration, periodic high intensity grazing events of the Offset Area except during late spring/early summer when no grazing is to occur. An upper limit to grazing periods will established to provide an outcome which is both ecologically beneficial and practically manageable, for example seven days of grazing in each paddock followed by a minimum rest period of four weeks, to be guided by grass height and grassland recovery.

The duration of grazing will need to be monitored by the land manager so native vegetation is not grazed to less than 5 cm in height. This will be dependent on number of sheep used, height of vegetation and seasonal conditions.

The current duration of grazing and/or the current stocking rate can be altered (increased or decreased). The aim is that the sheep will graze the introduced annual species particularly hard after

germination and prior to seed set. This allows native grasses and herbs to grow and set seed and for sheep to graze on annual introduced grasses (i.e. *Avena barbata*) and hence reduce their dominance over time.

The introduced annual species will set less seeds which, over time, will favour the native species. The native species will also be grazed, but as most perennial native species set seed later in the year (late spring/early summer), they will have sufficient growing time from the last grazing event (i.e. in August) to set seed. Grazing of perennial native grass species will also reduce the amount of thatch and ensure the grassland area is reinvigorated each year. A short duration of grazing will reduce the impact of the hard sheep hooves on the soil as well.

Stock proof fencing will be utilized to ensure that livestock remain excluded from sensitive vegetation, or vegetation where grazing is not thought to be beneficial. Fencing will also be utilized to manage the movement of livestock throughout the areas proposed for grazing.

Relevant Grazing Regime Terminology and Definitions, Adapted from Mid North Grasslands Working Group: How to Make Money Out Of Grass: A Farmers Guide to Grazing Management of Native Pastures in the Northern Agricultural Districts of SA (Mid North Grasslands Working Group, Undated).

Term or Calculation	Description/Definition
Carrying capacity (kg DM/ha)	How much a property can produce for an infinite time, dependent on soil type, rainfall and timing, pasture type. Measured as kilograms of dry matter per hectare; kg DM/ha).
Dry Sheep Equivalent (DSE)	10DSE/ha = 10 sheep on one hectare for 365 days
Dry Sheep	50 kg wether, eating approximately 1 kg of feed per day
Stocking rate (DSE/ha)	Number of Dry Sheep per hectare
Sustainable stocking rate	No more than 50% of the grass grown to be consumed by animals in order to: Prevent soil erosion Prevent weed establishment Retain seeds Provide base for new pasture growth Determined by the quantity of pasture in paddock (kg DM/ha).
Available feed	The quantity of pasture in a paddock that controls the feed intake of animals and pasture regrowth rate. Low: <1,000 kg DM/ha (feed intake and pasture growth restricted and desirable species will not persist) Ideal = 1,000–3,000 kg DM/ha (feed intake, diet selection and pasture growth rates are optimised) High = >3,000 kg DM/ha (No advantage for feed intake, pasture quality and growth rates decline, shading may reduce number of plants). **To measure:** *For green pasture,* measure height from the top of the bulk of the grass to the ground (do not extend leaves or measure tops of seed heads). 1 cm = 200 kg DM/ha (i.e. 6 cm of pasture equates to 6 cm x 200 kg = 1200 kg DM/ha) *For dry pasture,* estimate the number of handfuls of pasture in an area the size of approximately 33 cm x 33 cm, where 1 handful = 1,000kg DM/ha. **Calculation:** Multiply the kg DM/ha by the area of the paddock (ha) and then divide by two (for 50% utilisation rate). Divide by the number of sheep in the flock (i.e. 20,000 kg DM/ha / 250 DSEs (50 kg sheep) = 80 days of feed for 250 sheep.
Recovery Period	Time taken for pastures to recover following grazing. Variable according to the season. In spring (active growth) 30–40 days may be adequate, but in summer 90–180 days may be required. Recommended 60 days in winter, 30 days in spring and 90 days in summer and autumn. Leaf tussock height should not be grazed below 5 cm to ensure that >1,000 kg DM/ha remains.

How to calculate graze periods when paddocks are of varying size

Example: 10 paddocks varying in size from 100ha–400ha with the average paddock size of 250ha = Total grazing area of 2500ha
(For this example assume a 60 day recovery period)

1. Size factor = $\frac{\text{Paddock size}}{\text{Average paddock size}}$

Example 1: $\frac{400}{250}$ = 1.6 Size Factor

2. Graze period = $\frac{\text{Recovery period x size factor}}{\text{No of paddocks recovering}}$

Example 1: $\frac{60 \times 1.6}{9}$ = 10.66 Day Graze Period

This equals a 10 day graze period for this 400ha paddock

1. Size factor = $\frac{\text{Paddock size}}{\text{Average paddock size}}$

Example 2: $\frac{100}{250}$ = 0.4 Size Factor

2. Graze period = $\frac{\text{Recovery period x size factor}}{\text{No of paddocks recovering}}$

Example 2: $\frac{60 \times 0.4}{9}$ = 2.66 Day Graze Period

This equals a 2 day graze period for this 100ha paddock

Example Stocking Rate and Available Feed in Each Paddock at Time of Monitoring (Baseline Assessment)

Paddock	Area (ha)	Assessment Sites	Sheep Number and Type	DSE Rating	Total DSE of Mob	Current Stocking Rate (DSE / Ha)	Average Perennial Tussock Height (cm) at Baseline Assessment	Average kg DM/ha (1cm = 200 kg feed)	Comment
[redacted]	[redacted]	1	1000 ewes with lambs at foot	2.8	2,800	2.39	6	1,200	Low grass cover

Example Feed Budget Planning Sheet (Summer Rest Period: 90–120 days)

Date (of assessment)	Paddock Name	Paddock Size	Estimate of Available Feed (kg DM/ha)	Amount of feed to be utilised (<30%)	Total amount of feed to be utilised (kgs)	Sheep number and type	DSE Rating	Total DSE of mob	Days of Grazing Available
1/12/2022	[redacted]	[redacted]	1,200	400	46,936	1,000 ewes with lambs at foot	2.8	2,800	16

Example Paddock Monitoring Sheet

Paddock	Area	Date In	Date Out	Grazing Days	Average kg DM/ha	Sheep Number and Type	D.DSE Rating	E.DSE of Mob	F. Feed Utilised (kgs)	Rest Period	H.DSE Days / ha	I.DSE Days / ha / year
[redacted]	[redacted]	1/6/25	10/6/25	10	1,200	1,000 ewes with lambs	2.8	2,800	28,000	90	238	0.65

Appendix E

Activity Record Sheets

Management Activity Record Sheet

Date	Activity Type	Location	Details	Duration	Personnel involved	Notes	Follow-up required	Details
DD/MM/YYYY	e.g. weed control, firebreak maintenance, surveillance, culling	e.g. [redacted]	e.g. targeted spraying of Declared weeds	e.g. 3 hours	Name / Role	e.g. X number of weeds treated	Yes / No	e.g. Follow up in 4 weeks

Grazing Record Sheet

Paddock / Location	Number Of Stock	Stock Type	Start Trigger	Start Date	End Date	Duration (Days)	Objective	End Trigger
e.g. [redacted]	e.g. 500	e.g. Ewes with / without lambs	e.g. winter rainfall and growth of oat grass	DD/MM/YYYY	DD/MM/YYYY	e.g. 7 days	e.g. suppression of oat grass / prevention of seeding	e.g. oat grass seeds removed and grass height remains between 5 cm and 15 cm height.

Appendix F

Weed Control Methods and Timing

The following table outlines a number of weed control methods for Declared plants which are known to occur or have high potential to occur within the INTG Offset Area. It also includes two plants which are not listed as Declared, but are known to be present in high density within the areas of the INTG Offset Area, this includes *Asphodelus fistulosus* (Onion Weed) and *Carthamus lanatus* (Saffron Thistle). Management of these weeds is not required under legislation, however, additional weed control in addition to grazing management may be required to reduce their prevalence, if annual or biennial monitoring determines that weed species diversity and coverage is increasing beyond what is attributable to seasonal variation.

Biocontrol agents are not specifically listed in the following section, as they are numerous and dependent on availability from authorities such as the South Australian Department of Primary Industries and Regions (PIRSA).At least annual consultation (i.e. via email or phone) with the Northern and Yorke Landscape Board and / or PIRSA is also recommended to ensure that the most up-to date information on weed control is being utilised. This includes enquires regarding inclusion in any landscape scale control programs such as biocontrol, where weed density and conditions are deemed suitable within the Offset Area.

The following information was compiled from a range of online resources including:

- Government of South Australia Department of Primary Industries and Regions (PIRSA, 2025; PIRSA, 2024)
- South Australian Research and Development Institute: A guide to Biological Control in South Australia (Ivory & Mantel, 2013)
- NSW Government Department of Primary Industries (DPI), NSW WeedWise (DPI, 2025)
- NT.GOV.AU: A-Z list of weeds in the Northern Territory (Northern Territory Government , 2025).

Scientific Name	Common Name	Declared Plant (SA)	Form	Mechanism of Control	Methodology	Active Constituent (AC)	Application Rate	AC Rotation Timeframe	Target Plant Characteristics	Excluding circumstances	Timing of action	Timeline of Control (as part of an integrated approach)	Notes
Asphodelus fistulosus	Onion Weed	No	Perennial herb	Chemical	Foliar spraying	Glyphosate (360g/L)	500ml/100L of water	1 season (alternating cycle between the two AC methodologies)	Actively growing plants	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	June to November (no legislative requirements)	Even years, as required (i.e. years 2, 4, 6, 8, 10)	Spray the foliage to the point of run-off. Do not spray when plants are stressed. Retreatment is essential after flowering. Monitor success, repeat if required
Asphodelus fistulosus	Onion Weed	No	Perennial herb	Chemical	Foliar spraying	Aminocyclopyrachlor (240g/L)	200-500ml/100L of water	1 season (alternating cycle between the two AC methodologies)	Actively growing plants	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	June to November (no legislative requirements)	Odd years, as required (i.e. years 3, 5, 7, 9)	Spray the foliage to the point of run-off. Do not spray when plants are stressed. Retreatment is essential after flowering. Use at the higher rates for denser infestations. Monitor success, repeat if required
Carthamus lanatus	Saffron Thistle	No	Annual herb	Chemical	Foliar spraying	2,4-D Amine (625g/L)	320ml/L of water	1 season (alternating cycle between the two AC methodologies)	All plants, from isolated individuals to large infestations	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	March to October	Even years, as required	Spray the foliage to the point of run-off and ensure that all parts of the plant are covered with the herbicide. Do not spray during hot or dry periods, or at other times when plants are stressed. Most seeds will germinate within the first 2-years of germinating; however, some will remain viable for periods of up to 8 years. As such, for effective control, prepare for ongoing management
Carthamus lanatus	Saffron Thistle	No	Annual herb	Chemical	Foliar spraying	Glyphosate (360g/L)	150ml/100L of water	1 season (alternating cycle between the two AC methodologies)	All plants, from isolated individuals to large infestations	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	March to October	Odd years, as required	Spray the foliage to the point of run-off and ensure that all parts of the plant are covered with the herbicide. Do not spray during hot or dry periods, or at other times when plants are stressed. Most seeds will germinate within the first 2-years of germinating; however, some will remain viable for periods of up to 8 years. As such, for effective control, prepare for ongoing management
Carthamuslanatus	Saffron Thistle	No	Annual herb	Mechanical	Ploughing				Large infestation(s) prior to the onset of flowering	Not to occur when flowering has occurred, as the activity will spread the seed	March to October	Year 2 (if required, and then onwards if necessary)	Plough deeply that will bury the seeds and seedling rarely emerge from 5cm below in the soil. Inspection for flowers to be made prior to ploughing
Carthamus lanatus	Saffron Thistle	No	Annual herb	Physical	Hand pulling				Immature plants and for recent outbreaks that have not begun seed production		June to November	Year 2 onwards	Activity to be limited to when the soil is moist to assist with removal. To be applied sporadically whenever recruitment is observed. Persons must utilise protective clothing to prevent injury
Chondrilla juncea	Skeleton Weed	Yes	Perennial herb	Chemical	Foliar spraying	2,4-D (300g/L) + Picloram (75g/L)	650ml/100L	Indefinite	All plants, from isolated individuals to large infestations	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	June to August	Year 2 onwards	Spray plant to the point of run-off. Follow-up application over at least 2-years will be required as the plant(s) will regrow from its roots
Chondrilla juncea	Skeleton Weed	Yes	Perennial herb	Mechanical	Slashing				Large infestation(s) prior to the onset of flowering	Not to occur when flowering has occurred, as the activity will spread the seed	June to August	Year 2 (if required, and then onwards if necessary)	Important to prevent plants from seeding. Inspection for flowers to be made prior to slashing.
Chondrilla juncea	Skeleton Weed	Yes	Perennial herb	Physical	Hand pulling				Individual plants and very small infestations		June to November	Year 2 onwards	Activity to be limited to when the soil is moist to assist with removal. This must be done several times per year for several years due to the deep root system (up to 2-3 m deep).
Chondrilla juncea	Skeleton Weed	Yes	Perennial herb	Biocontrol	Multiple (midge, fungus, mite)				Large infestations.		Various (dependent on control agent)	As available, in suitable densely infested	Biocontrol agents have varying lifecycles and introduction would be dependent on regional biocontrol programs, availability of biocontrol agent and density of infestation.

Scientific Name	Common Name	Declared Plant (SA)	Form	Mechanism of Control	Methodology	Active Constituent (AC)	Application Rate	AC Rotation Timeframe	Target Plant Characteristics	Excluding circumstances	Timing of action	Timeline of Control (as part of an integrated approach)	Notes
												locations (if present) in consultation with PIRSA / NYLB.	
Convolvulus arvensis	Field Bindweed	Yes	Perennial herb	Chemical	Foliar spraying	2,4-D Amine (625g/L)	1.1L/ha	Indefinite	Very large infestations prior to flowering	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	July to November	Year 2 (if required, and then onwards if necessary)	Blanket spray.
Convolvulus arvensis	Field Bindweed	Yes	Perennial herb	Chemical	Foliar spraying	2,4-D Amine (625g/L)	100ml/100L of water	Indefinite	Individual plants and smaller infestations prior to flowering	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	July to November	Year 2 onwards	Spray all of the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Monitor success, repeat if required
Convolvulus arvensis	Field Bindweed	Yes	Perennial herb	Physical	Hand pulling				Individual plants and small infestations		June to November	Year 2 onwards	Activity to be limited to when the soil is moist to assist with removal. Option is best used in soft soils (i.e., sand or loam). To be applied sporadically whenever recruitment is observed
Crataegus monogyna	May	Yes	Shrub	Chemical	Foliar spraying	Triclopyr (600g/L)	170ml/100L of water	1 season (alternating cycle between the two AC methodologies)	Actively growing plants	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	September to February	Even years, as required	Spray all of the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Monitor success, repeat if required
Crataegus monogyna	May	Yes	Shrub	Chemical	Foliar spraying	2,4-D Amine (475g/L)	105ml/10L of water	1 season (alternating cycle between the two AC methodologies)	Actively growing plants	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	September to February	Odd years, as required	Persons must ensure the stem is covered from the ground to a height of 30 cm around its entire circumference (incomplete coverage may result in regrowth)
Crataegus monogyna	May	Yes	Shrub	Chemical	Cut-and-swab	Triclopyr (240g/L) + Picloram (120g/L)	1L/60L of biodiesel or diesel	1 season (alternating cycle between the two AC methodologies)	Plants where foliar spraying cannot occur		September to February	Even years, as required	Cut the stems off as close to the soil surface as possible, apply herbicide immediately
Crataegus monogyna	May	Yes	Shrub	Chemical	Cut-and-swab	Glyphosate (450g/L)	Undiliuted	1 season (alternating cycle between the two AC methodologies)	Plants where foliar spraying cannot occur		September to February	Odd years, as required	Cut the stems off as close to the soil surface as possible, apply 3-5 mm of the herbicide immediately. Treat at least 80% of stems (including main stems)
Crataegus monogyna	May	Yes	Shrub	Mechanical	Bulldozing				Large stands of mature plants that, by virtue of their size and the density of the infestation, prevents effective herbicide application		Year round	Year 2 (if required, and then onwards if necessary)	Unlikely to permanently remove an infestation; it will, however, improve the results of follow-up herbicide application. Aim to remove, collect, and bury all fragments under at least 1 m of soil. Any that are left or dropped during transport to the burial site will regrow
Crataegus monogyna	May	Yes	Shrub	Physical	Hand pulling				Immature plants and seedlings		June to November	Year 2 onwards	Activity to be limited to when the soil is moist to assist with removal. Persons must ensure that the majority of roots

Scientific Name	Common Name	Declared Plant (SA)	Form	Mechanism of Control	Methodology	Active Constituent (AC)	Application Rate	AC Rotation Timeframe	Target Plant Characteristics	Excluding circumstances	Timing of action	Timeline of Control (as part of an integrated approach)	Notes
													have been taken with the plant, otherwise regrowth may occur. To be applied sporadically whenever recruitment is observed
Cynara cardunculus	Artichoke Thistle	Yes	Perennial herb	Chemical	Boom spraying	Dicamba (500g/L)	1.6L/ha	Indefinite	Very large infestation(s) prior to flowering	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	June to October	Year 2 (if required, and then onwards if necessary)	Blanket spray. Do not spray when plants are stressed. Monitor success, repeat if required
Cynara cardunculus	Artichoke Thistle	Yes	Perennial herb	Chemical	Foliar spraying	Glyphosate (360g/L)	500ml/100L of water	1 season (alternating cycle between the two AC methodologies)	Individual plants and smaller infestations prior to flowering	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	June to October	Even years, as required	Spray all of the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Monitor success, repeat if required
Cynara cardunculus	Artichoke Thistle	Yes	Perennial herb	Chemical	Foliar spraying	Dicamba (500g/L)	100m/100L of water	1 season (alternating cycle between the two AC methodologies)	Individual plants and smaller infestations prior to flowering	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	June to October	Odd years, as required	Spray all of the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Add a surfactant to improve effectiveness. Monitor success, repeat if required
Cynara cardunculus	Artichoke Thistle	Yes	Perennial herb	Physical	Hand pulling				Individual plants and smaller infestations prior to flowering		June to November	Year 2 onwards	Activity to be limited to when the soil is moist to assist with removal. Option is best used in soft soils (i.e., sand or loam). To be applied sporadically whenever recruitment is observed. Persons to utilise protective clothing to prevent injury
Echium plantagineum	Paterson's Curse	Yes	Annual herb	Chemical	Boom spraying	Glyphosate (450g/L)	1.2-1.6L/ha	Indefinite	Very large infestation(s)	Do not spray after the emergence of first flowers as seed set has occurred. Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	March to July	Year 2 (if required, and then onwards if necessary)	Blanket spray. Do not spray when plants are stressed. Monitor success, repeat if required
Echium plantagineum	Paterson's Curse	Yes	Annual herb	Chemical	Foliar spraying	Metsulfuron-methyl (600g/kg)	5g/100L of water	1 season (alternating cycle between the two AC methodologies)	Apply to rosettes after full leaf expansion but before head emergence.	Do not spray after the emergence of first flowers as seed set has occurred. Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	March to July	Even years, as required	Spray the foliage to the point of run-off. Do not spray when plants are stressed. Monitor success, repeat if required
Echium plantagineum	Paterson's Curse	Yes	Annual herb	Chemical	Foliar spraying	Glyphosate (450g/L)	1L/100L of water	1 season (alternating cycle between the two AC methodologies)	Apply to rosettes after full leaf expansion but before head emergence.	Do not spray after the emergence of first flowers as seed set has occurred. Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	March to July	Odd years, as required	Spray the foliage to the point of run-off. Do not spray when plants are stressed. Monitor success, repeat if required
Echium plantagineum	Paterson's Curse	Yes	Annual herb	Mechanical	Slashing				Large infestation(s)	Do not slash after the emergence of flowers as seed set has begun and the activity may spread the infestation	March to July	Year 2 (if required, and then onwards if necessary)	Slashing will not kill Patterson's Curse outright; however, it will delay and suppress flowering. The activity forces the plant to regrow, thereby weakening the plant and increasing susceptibility to herbicide application. Chemical controls will be applied < 14 days from slashing

Scientific Name	Common Name	Declared Plant (SA)	Form	Mechanism of Control	Methodology	Active Constituent (AC)	Application Rate	AC Rotation Timeframe	Target Plant Characteristics	Excluding circumstances	Timing of action	Timeline of Control (as part of an integrated approach)	Notes
Echium plantagineum	Paterson's Curse	Yes	Annual herb	Physical	Hand pulling				Isolated individuals plants and small patches	Do not hand pull after the emergence of flowers as seed set has begun and the activity may spread the infestation	March to July	Year 2 onwards	Patterson's Curse will not regenerate from small root segments left in the ground so it is unnecessary for the soil to be moist for this activity to occur
Echium plantagineum	Paterson's Curse	Yes	Annual herb	Biocontrol	Multiple (moth, weevil, beetle)				Large infestations.		Various (dependent on control agent)	As available, in suitable densely infested locations (if present) in consultation with PIRSA / NYLB.	Biocontrol agents include a moth, two beetle species and two weevil species. Each have varying lifecycles and introduction would be dependent on regional biocontrol programs and density of infestation.
Lycium ferocissimum	African Boxthorn	Yes	Shrub	Chemical	Basal bark spraying	Triclopyr (600g/L)	2L/60L of biodiesel or diesel	1 season (alternating cycle between the two AC methodologies)	Immature plants with stems of up to 5 cm diameter at the base, where foliar spraying cannot occur		Year round	Even years, as required	Persons must ensure the stem is covered from the ground to a height of 30 cm around its entire circumference (incomplete coverage may result in regrowth)
Lycium ferocissimum	African Boxthorn	Yes	Shrub	Chemical	Basal bark spraying	Triclopyr (240g/L) + Picloram (120g/L)	1L/60L of biodiesel or diesel	1 season (alternating cycle between the two AC methodologies)	Immature plants with stems of up to 5 cm diameter at the base, where foliar spraying cannot occur		Year round	Odd years, as required	Persons must ensure the stem is covered from the ground to a height of 30 cm around its entire circumference (incomplete coverage may result in regrowth)
Lycium ferocissimum	African Boxthorn	Yes	Shrub	Chemical	Cut-and-swab	Picloram (44.7g/L) + Aminopyralid (4.7g/L)	Undiluted gel	1 season (alternating cycle between the two AC methodologies)	Mature plants with stems greater than 5 cm diameter at the base, where foliar spraying cannot occur		Year round	Even years, as required	Cut the stems off as close to the soil surface as possible, apply herbicide immediately
Lycium ferocissimum	African Boxthorn	Yes	Shrub	Chemical	Cut-and-swab	Glyphosate (450g/L)	Undiluted	1 season (alternating cycle between the two AC methodologies)	Mature plants with stems greater than 5 cm diameter at the base, where foliar spraying cannot occur		Year round	Odd years, as required	Cut the stems off as close to the soil surface as possible, apply herbicide immediately
Lycium ferocissimum	African Boxthorn	Yes	Shrub	Chemical	Foliar spraying	Glyphosate (540g/L)	470-670ml/100L of water	1 season (alternating cycle between the two AC methodologies)	Actively growing plants, most effective for plants under 2 m tall	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	July to September	Even years, as required	Spray the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Best applied following rainfall events. Monitor success, repeat if required
Lycium ferocissimum	African Boxthorn	Yes	Shrub	Chemical	Foliar spraying	Gylphosate (450g/L) + Metsulfuron-methyl (600g/kg)	1L+10g/100L of water	1 season (alternating cycle between the two AC methodologies)	Actively growing plants, most effective for plants under 2 m tall	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	July to September	Odd years, as required	Spray the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Best applied following rainfall events. Monitor success, repeat if required

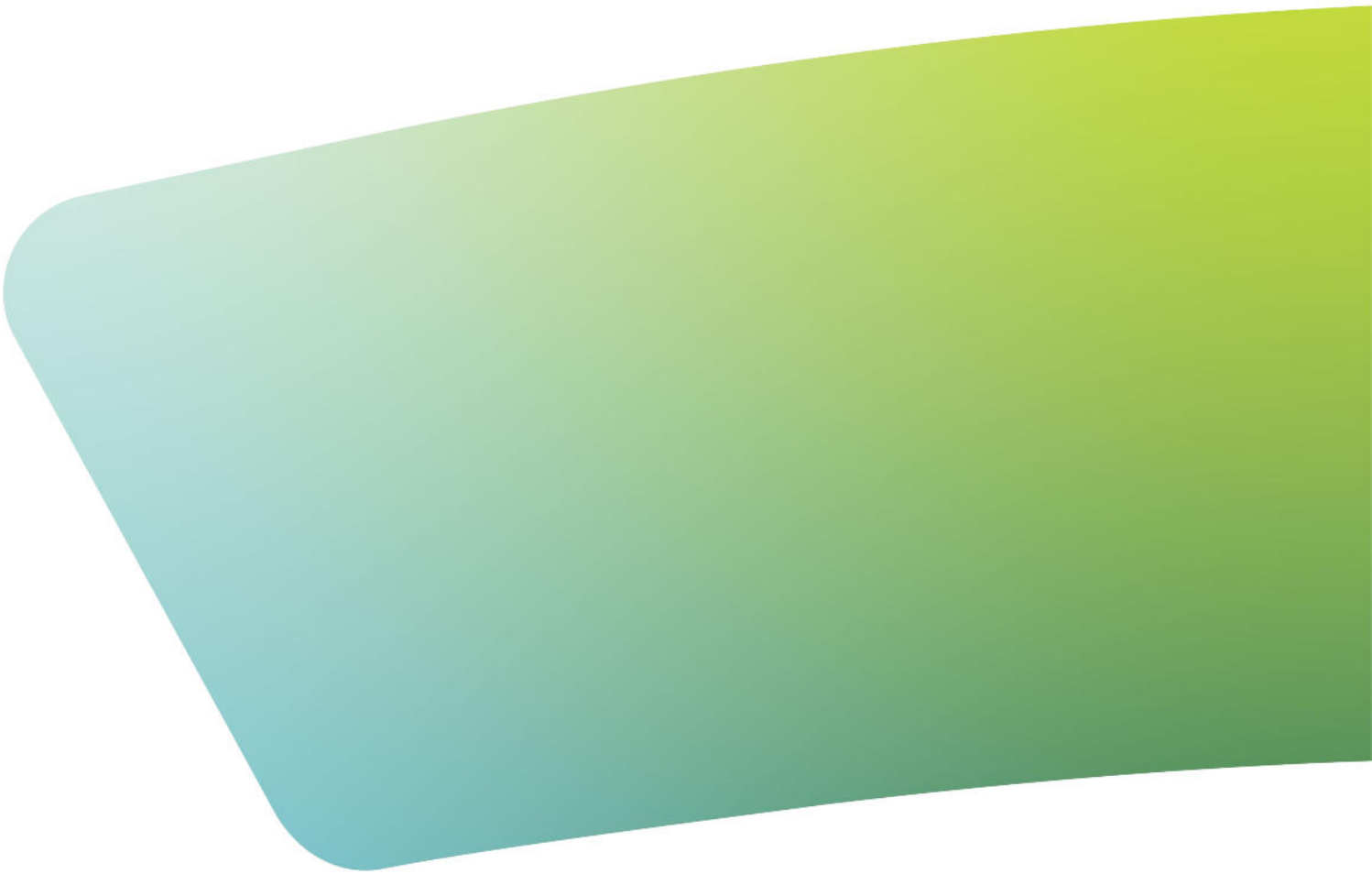
Scientific Name	Common Name	Declared Plant (SA)	Form	Mechanism of Control	Methodology	Active Constituent (AC)	Application Rate	AC Rotation Timeframe	Target Plant Characteristics	Excluding circumstances	Timing of action	Timeline of Control (as part of an integrated approach)	Notes
Lycium ferocissimum	African Boxthorn	Yes	Shrub	Mechanical	Bulldozing, stick raking, and/or by blade ploughing				Large stands of mature plants that, by virtue of their size and the density of the infestation, prevents effective herbicide application		Year round	Year 2 (if required, and then onwards if necessary)	Unlikely to permanently remove an infestation; it will, however, improve the results of follow-up herbicide application.
Lycium ferocissimum	African Boxthorn	Yes	Shrub	Physical	Hand pulling				Immature plants and seedlings		June to November	Year 2 onwards	Activity to be limited to when the soil is moist to assist with removal. To be applied sporadically whenever recruitment is observed. Persons must utilise protective clothing to prevent injury
Marrubium vulgare	Horehound	Yes	Shrub	Chemical	Foliar spraying	Glyphosate (360g/L)	1L/100L of water	1 season (alternating cycle between the two AC methodologies)	Immature plants	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	March to May	Even years, as required	Spray the entire plant surface, to the point of run off. Do not spray during dry periods, or at other times when plants are stressed. Monitor success, repeat if required
Marrubium vulgare	Horehound	Yes	Shrub	Chemical	Foliar spraying	2,4-D Amine (625g/L) + Metsulfuron (600g/kg)	500ml + 5g/100L of water	1 season (alternating cycle between the two AC methodologies)	Actively growing plants	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	September to November	Odd years, as required	Spray the entire plant surface, to the point of run off. Do not spray during dry periods, or at other times when plants are stressed. Monitor success, repeat if required
Marrubium vulgare	Horehound	Yes	Shrub	Chemical	Boom spraying	Glyphosate (450g/L)	1.2-1.6L/ha	Indefinite	Very large infestation(s)	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	March to May	Year 2 (if required, and then onwards if necessary)	Blanket spray. Slashing to promote new growth before spraying may increase kill rate. Do not spray during dry periods, or at other times when plants are stressed. Monitor success, repeat if required
Marrubium vulgare	Horehound	Yes	Shrub	Mechanical	Slashing				Infestation(s) during the active growing period prior to the onset of seed production	Not to occur when seeds are present, as the activity will spread the infestation	September to November	Year 2 (if required, and then onwards if necessary)	Slashing to coincide with the chemical control regime to promote the effectiveness of herbicide application
Marrubium vulgare	Horehound	Yes	Shrub	Physical	Hand pulling				Individual plants and small infestations		June to November	Year 2 onwards	Activity to be limited to when the soil is moist to assist with removal. To be applied sporadically whenever recruitment is observed
Marrubium vulgare	Horehound	Yes	Shrub	Biocontrol	Multiple (moth)				All plants, from isolated individuals to large infestations		November to January	As available, in suitable densely infested locations (if present) in consultation with PIRSA / NYLB.	Control agents include Horehound Plume Moth (*Wheeleria spilodactylus*) and Horehound clearwing moth (*Chamaespheia mysinformis*). Horehound roots can be dug up and inspected for evidence of larvae or tunnelling in spring and early summer.
Moraea flaccida	Cape Tulip	Yes	Perennial herb	Chemical	Foliar spraying	2,4-D Amine (720g/L)	480ml/100L of water	1 season (alternating cycle between the two AC methodologies)	Actively growing plants	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	July to August	Even years, as required	Spray all of the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Monitor success, repeat if required

Scientific Name	Common Name	Declared Plant (SA)	Form	Mechanism of Control	Methodology	Active Constituent (AC)	Application Rate	AC Rotation Timeframe	Target Plant Characteristics	Excluding circumstances	Timing of action	Timeline of Control (as part of an integrated approach)	Notes
Moraea flaccida	Cape Tulip	Yes	Perennial herb	Chemical	Foliar spraying	Metsulfuron-methyl (600g/kg)	10g/100L of water	1 season (alternating cycle between the two AC methodologies)	Actively growing plants	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	July to September	Odd years, as required	Spray all of the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Monitor success, repeat if required
Moraea flaccida	Cape Tulip	Yes	Perennial herb	Chemical	Wiper sponge	2,4-D Amine (475g/L) + Metsulfuron-methyl (600g/kg)	1L/3L of water	Indefinite	Actively growing plants where foliar spraying cannot occur		July to September	Year 2 onwards	Wiping is recognised to be less effective than foliar spraying, be prepared for multiple years of application'
Moraea flaccida	Cape Tulip	Yes	Perennial herb	Physical	Hand pulling				Individual plants and small infestations		June to November	Year 2 onwards	Activity to be limited to when the soil is moist to assist with removal. Ensure that the bulb(s) of each extracted plant have been removed
Reseda lutea	Cutleaf Mignonette	Yes	Perennial herb	Chemical	Foliar spraying	Metsulfuron-methyl (600g/kg)	7g/ha	Indefinite	Very large infestations prior to flowering	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	July to November	Year 2 (if required, and then onwards if necessary)	Blanket spray.
Reseda lutea	Cutleaf Mignonette	Yes	Perennial herb	Chemical	Foliar spraying	2,4-D Amine (475g/L) + Glyphosate (450g/L)	145ml + 1L/100L of water	1 season (alternating cycle between the two AC methodologies)	Individual plants and smaller infestations prior to flowering	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	July to November	Even years, as required	Spray all of the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Monitor success, repeat if required
Reseda lutea	Cutleaf Mignonette	Yes	Perennial herb	Chemical	Foliar spraying	2,4-D (300g/L) + Picloram (75g/L)	650ml/100L of water	1 season (alternating cycle between the two AC methodologies)	Individual plants and smaller infestations prior to flowering	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	July to November	Odd years, as required	Spray all of the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Monitor success, repeat if required
Reseda lutea	Cutleaf Mignonette	Yes	Perennial herb	Physical	Hand pulling				Individual plants and small infestations		June to November	Year 2 onwards	Activity to be limited to when the soil is moist to assist with removal. Option is best used in soft soils (i.e., sand or loam). To be applied sporadically whenever recruitment is observed
Rosa canina	Dog Rose	Yes	Shrub	Chemical	Foliar spraying	Glyphosate (360g/L)	1.5-2L/100L of water	1 season (alternating cycle between the two AC methodologies)	Actively growing plants	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	October to January	Even years, as required	Spray all of the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Use at higher rates on denser infestations. Monitor success, repeat if required
Rosa canina	Dog Rose	Yes	Shrub	Chemical	Foliar spraying	Triclopyr (600g/L)	170ml/100L of water	1 season (alternating cycle between the two AC methodologies)	Actively growing plants	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	October to January	Odd years, as required	Spray all of the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Monitor success, repeat if required
Rosa canina	Dog Rose	Yes	Shrub	Chemical	Basal bark spraying	Triclopyr (600g/L)	1L/30L of biodiesel or diesel	Indefinite	Immature plants with stems of up to 5 cm diameter at the base, where foliar spraying cannot occur		September to February	Year 2 onwards	Persons must ensure the stem is covered from the ground to a height of 30 cm around its entire circumference (incomplete coverage may result in regrowth)

Scientific Name	Common Name	Declared Plant (SA)	Form	Mechanism of Control	Methodology	Active Constituent (AC)	Application Rate	AC Rotation Timeframe	Target Plant Characteristics	Excluding circumstances	Timing of action	Timeline of Control (as part of an integrated approach)	Notes
Rosa canina	Dog Rose	Yes	Shrub	Chemical	Cut-and-swab	Glyphosate (450g/L)	Undiluted	1 season (alternating cycle between the two AC methodologies)	Mature plants with stems greater than 5 cm diameter at the base, where foliar spraying cannot occur		September to February	Even years, as required	Cut the stems off as close to the soil surface as possible, apply herbicide immediately
Rosa canina	Dog Rose	Yes	Shrub	Chemical	Cut-and-swab	Triclopyr (600g/L)	1L/30L of biodiesel or diesel	1 season (alternating cycle between the two AC methodologies)	Mature plants with stems greater than 5 cm diameter at the base, where foliar spraying cannot occur		September to February	Odd years, as required	Cut the stems off as close to the soil surface as possible, apply herbicide immediately
Rosa canina	Dog Rose	Yes	Shrub	Mechanical	Bulldozing, slashing				Large stands of mature plants that, by virtue of their size and the density of the infestation, prevent effective herbicide application		September to February	Year 2 (if required, and then onwards if necessary)	Unlikely to permanently remove an infestation; it will, however, suppress seed production and improve the results of follow-up herbicide application.
Rosa canina	Dog Rose	Yes	Shrub	Physical	Hand pulling				Individual plants and small infestations		November to January	Year 2 onwards	Activity to be limited to when the soil is moist to assist with removal. Persons must wear appropriate protective clothing to prevent injury. To be applied sporadically whenever recruitment is observed
Xanthium spinosum	Bathurst Burr	Yes	Annual herb	Chemical	Boom spraying	Glyphosate (450g/L)	1.25-2.4L/ha	1 season (alternating cycle between the two AC methodologies)	Large infestation(s). Actively growing plants, before flowering and burr formation	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	September to November	Year 2 (if required, and then onwards if necessary)	Blanket spray. Add an organosilicone penetrant. Use at the higher rates on denser infestations. Most effective on younger plants, may require repeat applications to eliminate older individuals. Do not use if plants appear to be suffering moisture stress. Monitor success, repeat if required
Xanthium spinosum	Bathurst Burr	Yes	Annual herb	Chemical	Foliar spraying	Glyphosate (450g/L)	1L/100L of water	1 season (alternating cycle between the two AC methodologies)	Smaller infestation(s). Actively growing plants, before flowering and burr formation	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	September to November	Even years, as required	Spray all of the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Monitor success, repeat if required
Xanthium spinosum	Bathurst Burr	Yes	Annual herb	Chemical	Foliar spraying	MCPA (340g/L) + Dicamba (80g/L)	190-270ml/100L of water	1 season (alternating cycle between the two AC methodologies)	Smaller infestation(s). Actively growing plants, before flowering and burr formation	Aerosol spraying may be problematic in environmentally sensitive areas (i.e., watercourses). Land managers are to ensure that the chemicals to be used are suitable if operating in such situations	September to November	Odd years, as required	Spray all of the foliage to the point of run-off. Do not spray during hot or dry periods, or at other times when plants are stressed. Use at the higher rates on denser infestations. Monitor success, repeat if required
Xanthium spinosum	Bathurst Burr	Yes	Annual herb	Mechanical	Mowing/slashing				Clean-up' operations after spraying with herbicide or if the infestations are small and scattered	Not to occur when the burrs are present, as the activity will spread the plant	September to November	Year 2 (if required, and then onwards if necessary)	Will not permanently remove an infestation; it will, however, improve the results of follow-up herbicide application. Burr production typically occurs from summer to autumn, however inspection for the material needs to be made prior to mowing/slashing

Appendix G

Pest Animal Control Methods



The following table outlines a number of pest herbivore control methods for species which are known to occur or have high potential to occur within the INTG Offset Area. Methodology includes aerial shooting, ground shooting, trapping or mustering baiting, warren ripping, fumigation and biocontrol.

Aerial shooting is unlikely to be a cost-effective method and would only be utilised as part of a larger control program within the region, if available. Ground shooting is most effective during dry months, when animals such as goats and kangaroos congregate at water points. However, shooting can be implemented with varying success throughout the year. Timing of other control methods such as warren ripping, fumigation and biocontrol, depend on the lifecycle of the target species.

At least annual consultation (i.e. via email or phone) with the Northern and Yorke Landscape Board and / or PIRSA is recommended to determine if any collaborative / landscape scale pest control programs can be implemented at the Offset Area.

Method	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Aerial shooting (as part of landscape program, if available)												
Ground Shooting (goats / deer / kangaroos / hare). Two sessions, each of one day / night duration, is recommended within the optimal period for the INTG Offset Area. Additional shooting effort is likely to be implemented as part of a broader management plan for the native vegetation SEB (Stage 2) within the broader [redacted] Offset Site.												
Trapping or mustering (goats)												
Baiting (rabbit))												
Warren Ripping (rabbit)												
Fumigation (rabbit)												
Biocontrol (rabbit)												

The following information was primarily compiled from the Government of South Australia Department of Primary Industries and Regions website (Department of Primary Industries and Regions, 2026)

Scientific Name	Common Name	Mechanism of Control	Methodology	Active Constituent (AC)	Excluding Circumstances	Timing of action - SA	Timeline of Control (as part of an integrated approach)	Notes
Capra hircus	Feral Goat	Physical	Aerial shooting			Year round	NA	Advantageous for covering large inaccessible areas, its target-specificity and cost-effectiveness (initially) with large goat populations. Effectiveness diminishes following population reductions from the aerial culling campaign. Unlikely to be cost effective, only used as part of a larger landscape scale campaign.
Capra hircus	Feral Goat	Physical	Ground shooting			Year round	Year 2 onwards	To be used opportunistically, a minimum of twice per year. Unlikely to result in a permanent, long-term population reduction without the application of other methodologies or larger scale implementation of culling program (i.e. on neighbouring properties).
Capra hircus	Feral Goat	Mechanical	Trapping at water points / mustering			November to May	Year 2 onwards	To be implemented prior to or in conjunction with culling. Can have a significant, deleterious impact on non-target native animals. Trapped non-target species must be removed as quickly as possible to avoid undue stress.
Dama spp., *Cervus* spp.	Feral Deer	Physical	Aerial shooting			Year round	Year 2 (and when required if population recovery occurs)	Advantageous for covering large inaccessible areas, its target-specificity and cost-effectiveness (initially) with large goat populations. Effectiveness diminishes following population reductions from the aerial culling campaign. Unlikely to be cost effective, only used as part of a larger landscape scale campaign.
Dama spp., *Cervus* spp.	Feral Deer	Physical	Ground shooting			Year round	Year 2 onwards	To be used opportunistically, a minimum of twice per year, if sightings recorded in Offset Area. Unlikely to result in a permanent, long-term population reduction without the application of other methodologies or larger scale implementation of culling program (i.e. on neighbouring properties).
Lepus europaeus	European Hare	Physical	Ground shooting			Year round	Year 2 onwards	To be used opportunistically, a minimum of twice per year. Unlikely to result in a permanent, long-term population reduction without the application of other methodologies or larger scale implementation of culling program (i.e. on neighbouring properties).
Lepus europaeus	European Hare	Mechanical	Cage traps			Year round	Year 2 onwards	Labour intensive, and therefore not practical for broadscale control. More useful in small areas where baiting/shooting is impractical.
Macropus sp.	Kangaroo species	Physical	Ground Shooting		Authorised shooters only with permits /tags obtained from DEW.	Year round	Year 2 onwards	To be used opportunistically, a minimum of twice per year. Unlikely to result in a permanent, long-term population reduction without the application of other methodologies or larger scale implementation of culling program (i.e. on neighbouring properties).
Oryctolagus cuniculus	Rabbit	Biocontrol	Calicivirus (K5 rabbit hemorrhagic disease virus)	Treated carrots (one K5 vial per 10kg) or oats (one K5 vial per 5kg).	When rabbits are less than 12 weeks old	Autumn or early summer	Year 2 onwards	Population suppression using targeted methodology, with minimal off target risk.
Oryctolagus cuniculus	Rabbit	Chemical	Baiting	1080 (sodium monofluoroacetate)	5 m from boundary fencing, 20 m of a marked boundary, 20 m from a watercourse, 20 m from public road, 500 m from habitation	February to March	After year 4 if biocontrol ineffective.	Population suppression prior to the implementation of other mechanisms of control. Target baits in proximity (< 25 m) from known active warrens and burrows. Carcasses must be disposed to prevent secondary poisoning.
Oryctolagus cuniculus	Rabbit	Chemical	Baiting	Pindone		February to March	After year 4 if biocontrol ineffective.	Population suppression prior to the implementation of other mechanisms of control. Target baits in proximity (< 25 m) from known active warrens and burrows. Carcasses must be disposed of to prevent secondary poisoning
Oryctolagus cuniculus	Rabbit	Mechanical	Warren ripping			November to March	Year 3 onwards	Best in dry conditions and when rabbit numbers are at lower densities. To reoccur over time if required
Oryctolagus cuniculus	Rabbit	Chemical	Fumigation	Aluminum phosphide		November to March	Year 3 onwards	Best prior to the commencement of breeding. To reoccur if required
Oryctolagus cuniculus	Rabbit	Physical	Ground shooting			Year round	Year 2 onwards	To be used opportunistically, a minimum of twice per year. Unlikely to result in a permanent, long-term population reduction without the application of other methodologies or larger scale implementation of culling program (i.e. on neighbouring properties).

umwelt

P 1300 793 267 E info@umwelt.com.au W umwelt.com.au

NSW | ACT | WA | QLD | VIC | SA ABN 18 059 519 041