# West Kenny Offset Management Plan

EPBC Approval 2020/8768; Upgrade of the Monaro Highway between David Warren Road (intersection with Monaro Highway) and Sheppard Street (intersection with Lanyon Drive), Hume, ACT.

**Monaro Highway Project**

4 May 2026

Prepared for:

Infrastructure Canberra
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on behalf of the ACT Government

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Signed

Full name (please print)

Steven Hare

Organisation (please print)

Infrastructure Canberra

Date 5/5/2026

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# Executive Summary

West Kenny Offset Site (henceforth referred to as West Kenny Offset) consists of 12.2 ha of unreserved land located within registered rural block no. 739, Gungahlin, ACT. Block no. 739 consists of approximately 33 ha of land mapped under Future Urban Areas within the Territory Plan-Overlay Zone. The site provides habitat for a population of Striped Legless Lizards (SLL; *Delma impar*).

A portion of West Kenny was selected to compensate for the residual significant impact on SLL associated with a suite of road upgrades at, and near to, the intersection of Monaro Highway and Lanyon Drive, Hume, ACT (the Monaro Highway Project). The Monaro Highway Project will result in the removal of 4.05 ha of SLL habitat.

West Kenny Offset will be secured in perpetuity as a Nature Reserve through the Major Plan Amendment (MPA) process. The standard duration to process a MPA is 12-18 months. ACT Parks and Conservation Service (PCS) is the current custodian of the site and will be responsible for land management. Funding will be provided by Infrastructure Canberra (iCBR) for establishment and initial management costs. The primary objective of this Offset Management Plan (OMP) is to maintain and enhance the extent and quality of SLL habitat. This will be achieved through management actions, in particular, weed control and herbage mass management.

This OMP has been developed to meet conditions 5 and 6 of the approval for the Monaro Highway Project (EPBC 2020/8768) and provide guidance for the implementation and management of offset activities at West Kenny Offset and within the broader area surrounding the offset, including targets, management mechanisms and risk mitigation. A risk assessment was completed to assess risks to achieving offset commitments and determine priorities for management. Actions and risk mitigation techniques within this OMP include:

- Monitoring and reporting
- Triggers and associated contingency actions
- Adaptive management, whereby monitoring results inform corrective actions
- Management actions for West Kenny Offset.

# Abbreviations

| Term | Definition |
|---|---|
| **ACT** | Australian Capital Territory |
| **ACTIA** | Australian Capital Territory Insurance Authority |
| **ACR** | Annual Compliance Report |
| **AD** | Activities Declaration |
| **BOP** | Bushfire Operations Plan |
| **CED** | City and Environment Directorate |
| **CEMP** | Conservation Effectiveness Monitoring Program |
| **CNPRMP** | Canberra Nature Park Reserve Management Plan |
| **DAWE** | Department of Agriculture, Water and the Environment |
| **DCCEEW** | Department of Climate Change, Energy, the Environment and Water |
| **DSEWPC** | Department of Sustainability, Environment, Water, Population and Communities |
| **EOAMS** | Environmental Offsets Adaptive Management Strategy |
| **EOEMP** | Environmental Offsets Ecological Monitoring Program |
| **EPBC Act** | *Environment Protection and Biodiversity Conservation Act 1999* |
| **EPSDDIAT** | Environment, Planning, and Sustainable Development Directorate Impact Assessment Team |

| Term | Definition |
|---|---|
| **ha** | Hectares |
| **iCBR** | Infrastructure Canberra |
| **M&R Plan** | Monitoring and Research Plan |
| **MNES** | Matter of National Environmental Significance |
| **MPA** | Major Plan Amendment |
| **NC Act** | *Nature Conservation Act 2014* |
| **OMP** | Offset Management Plan |
| **PCS** | Parks and Conservation Service |
| **RAPID** | Restoration and Projects Information Database |
| **SBMP** | Strategic Bushfire Management Plan |
| **SFAZ** | Strategic Firefighting Advantage Zone |
| **SLA** | Suburban Land Agency |
| **SLL** | Striped Legless Lizard |
| **TCE** | Traditional Custodian Engagement |

# Glossary

| Term | Definition |
|---|---|
| **Approval Holder** | Transport Canberra and City Services Directorate (now Infrastructure Canberra). |
| **Controlled Action** | Upgrade of the Monaro Highway between David Warren Road (intersection with Monaro Highway) and Sheppard Street (intersection with Lanyon Drive), Hume, ACT. |
| **Direct Offset** | A 12.2 ha area, located within the southern portion of registered rural block no. 739, Gungahlin, designated for the direct offset of Package 1C of the Monaro Highway Project. |
| **Impact Site** | The 4.05 ha area of exotic grasslands, located between the southbound Monaro Highway Carriageway and the western end of Lanyon Drive, Hume, ACT, which will be directly impacted by Package 1C of the Monaro Highway Project. |
| **Monaro Highway Project** | A suite of road upgrades at, and near to, the intersection of Monaro Highway and Lanyon Drive, Hume, ACT. |
| **Nadjung Mada** | Nadjung Mada Nature Reserve, located in Kenny, ACT. |
| **Proposed Offset Site** | A 12.2 ha site located within the southern portion of registered rural block no. 739, Gungahlin. The site has been designated for the direct offset of Package 1C of the Monaro Highway Project. |
| **West Kenny** | A 12.2 ha site located within the southern portion of registered rural block no. 739, Gungahlin. The site has been designated for the direct offset of Package 1C of the Monaro Highway Project for EPBC 2020/8768. |

# 1.0 INTRODUCTION

## 1.1 BACKGROUND

West Kenny Offset consists of 12.2 ha of unreserved land located within registered rural block no. 739, Gungahlin, ACT. Block no. 739 consists of approximately 33 ha of land mapped under Future Urban Areas within the Territory Plan-Overlay Zone. The offset site is located in the southern portion of block no. 739 and is situated on the south-east of the small hill position on the central portion of the block. It sits within two paddocks and is intersected by an existing fence line (Figure 1).

West Kenny was selected to compensate for the residual significant impact on Striped Legless Lizard (*Delma impar*) (SLL) resulting from the Monaro Highway Project. Package 1C of the Monaro Highway Project (Package 1C) includes the upgrade of the Monaro Highway between David Warren Road (intersection with Monaro Highway) and Sheppard Street (intersection with Lanyon Drive), Hume, ACT. Package 1C was referred under the *Environment Protection and Biodiversity Conservation Act* (EPBC Act) on 13 July 2020 and subsequently declared a controlled action. The Monaro Highway Project will result in the direct loss of 4.05 ha of SLL habitat (Figure 2).

As per approval EPBC 2020/8768, the approval holder must compensate for residual impacts to SLL through suitable offsets. This includes requirements for the approval holder to submit an Offset Management Plan (OMP) for the Minister's written approval. An Offset Strategy was developed to assess the suitability of West Kenny to compensate for the impacts of development on SLL habitat (Stantec 2023; Appendix A). The Offset Strategy provides a detailed analysis of the condition and quality of SLL habitat at the impact site and proposed offset site. The offset site consists of 12.2 ha of SLL habitat which provides a direct offset for the 4.05 ha of SLL habitat directly impacted by Package 1C (Appendix D).

## 1.2 STRIPED LEGLESS LIZARD (*DELMA IMPAR*)

The SLL is listed as 'vulnerable' under the EPBC Act.

The SLL is a grassland specialist primarily found in areas of native grassland and open woodland. It can also occur in other grassy habitats that provide suitable refuge and foraging opportunities.

Natural temperate grassland is one of Australia's most threatened ecological communities. The decline of the SLL is primarily driven by the loss and degradation of native grassland habitats, resulting from a range of processes including land clearing, fragmentation, invasive species, over grazing and altered fire regimes. It can also be found in adjacent areas of grassy woodland and exotic pasture with a suitable density of tussock grasses, although sub-optimal (TSSC 2016). The habitats in the ACT include patches of natural grasslands, often dominated by species such as Kangaroo Grass (*Themeda triandra*) and *Austrostipa spp*. These grasslands provide essential cover and hunting grounds for the SLL.



**Photo 1: SLL detected within proposed offset site**



**Photo 2: SLL detected within proposed offset site**

## 1.3 CONTEXT AND SCOPE

This OMP has been prepared in accordance with the requirements of the EPBC Act Environmental Offsets Policy (DSEWPC 2012a) and the Environmental Management Plan Guidelines (Commonwealth of Australia 2024). It has been prepared to address the requirements for conditions 5 and 6 of the approval for the Monaro Highway Project (EPBC 2020/8768, Appendix C) and guide the implementation and management of offset activities at West Kenny. As PCS will become the custodian responsible for land management, this OMP has also been prepared in accordance with the Environmental Offsets Adaptive Management Strategy (EOAMS) (ACT Government 2021).

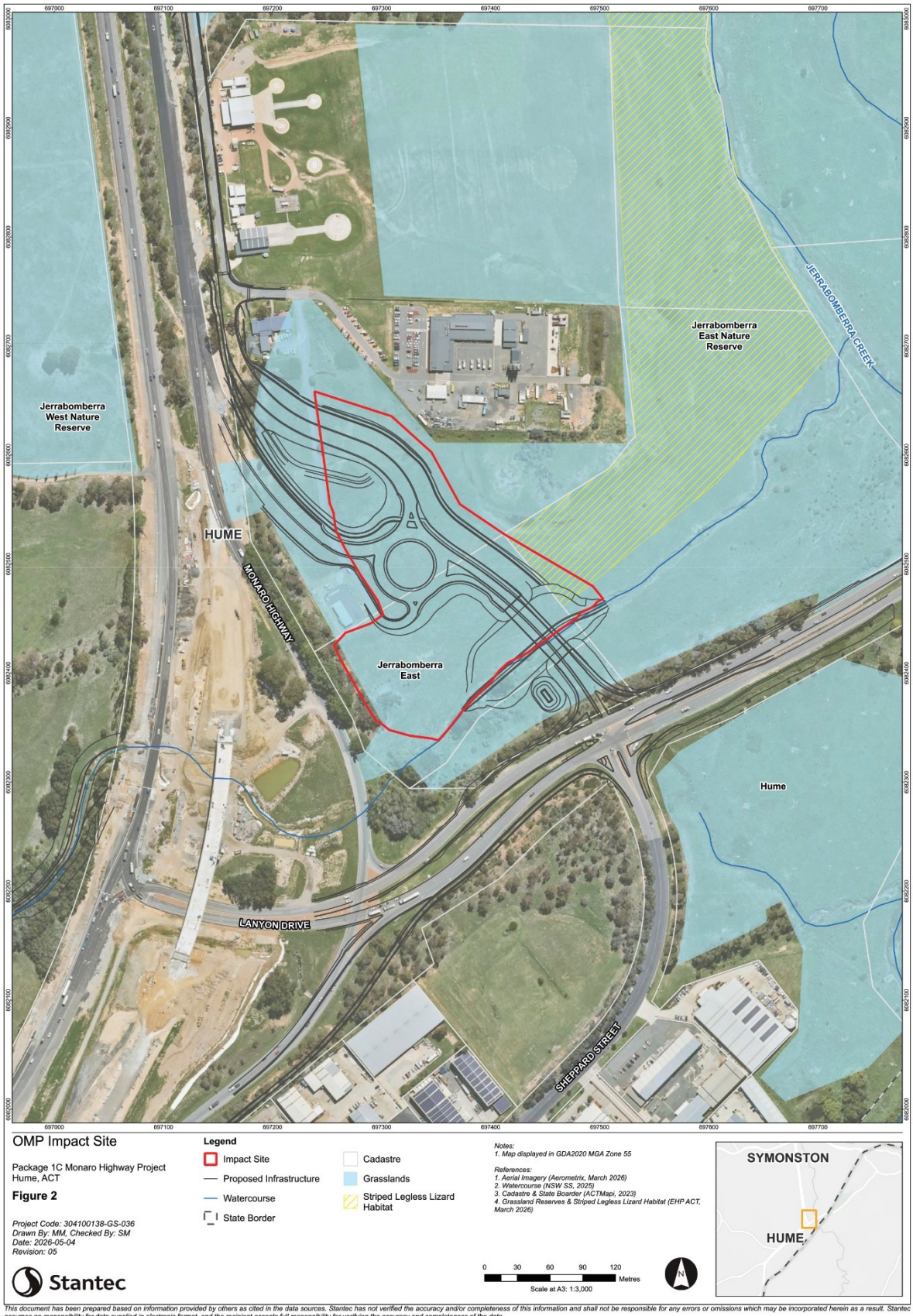
This OMP includes:

- Reference to the residual impacts and conditions of the offset site, as detailed in the Offset Strategy (Stantec 2025);
- A map of the offset area and surrounding habitats;
- Details on the security, protection and management of the offset;
- Details on the timing of management actions to be implemented;
- Performance targets and triggers;
- A detailed program to monitor and report on the effectiveness of management actions, and progress against performance and completion criteria; and
- An assessment of risks to achieving ecological benefits and risk management strategies implemented to address these risks.

**Figure 1-1 West Kenny Offset Site**



**Figure 1-2 Impact Site**



## 1.4 APPROVAL CONDITIONS

The EPBC approval conditions relevant to management of the West Kenny Offset controlled action (EPBC 2020/8768, Appendix C) are summarised in Table 1-1. Terms in Table 1-1, **in bold,** are defined in EPBC 2020/8768.

Offset commitments, as detailed in this OMP, must be delivered for the approval period of EPBC 2020/8768 (until 30 June 2052). The site will be included within the ACT Reserve System to ensure protection in perpetuity, as the removal of 4.05 ha SLL habitat at the impact site will be permanent.



**Table 1-1 EPBC 2020/8768 Conditions of Approval Reference Table**

| Reference | Condition | Condition Requirement | Plan Reference | Demonstration of how the plan addresses condition requirements and commitments made in the plan to address condition requirement |
|---|---|---|---|---|
| **1** | 5 | To compensate for the residual significant impact on **Striped Legless Lizard**, the approval holder must submit to the **department** for approval by the **Minister** an Offset Management Plan (OMP). The approval holder must not undertake any **clearing**, **construction** or other physical activity associated with the Action outside of the **Package 1C Early Works Boundary** unless the OMP is approved in writing by the **Minister.** The approval holder must implement the approved OMP from the date of approval by the **Minister** and continue to implement the approved OMP at least until the expiry date of this approval. | This entire document. | The plan has been developed in accordance with the requirements of the EPBC Act Environmental Offsets Policy (DSEWPC 2012a) and the Environmental Management Plan Guidelines (Commonwealth of Australia 2024).<br>The approval of this plan by the Minister is to be determined.<br>The approval holder must not undertake any **clearing**, **construction** or other physical activity associated with the Action outside of the **Package 1C Early Works Boundary** unless the OMP is approved in writing by the **Minister.** This requirement is also included in the Construction Environmental Management Plan (CEMP), approved by the Minister.<br>The approval holder will implement this OMP as approved by the minister. |
| **2** | 6 | The OMP must meet the requirements of the **Environmental Offsets Policy** and the **Environmental Management Plan Guidelines** to the satisfaction of the **Minister**. All commitments, including environmental outcomes, management measures, corrective actions, trigger values and performance indicators in the OMP must be **SMART** and based on referenced or included evidence of effectiveness. The OMP must be prepared by a **suitably qualified ecologist** and must [see rows below]: | | The plan has been developed by an ecologist in accordance with the requirements of the EPBC Act **Environmental Offsets Policy** (DSEWPC 2012a) and the **Environmental Management Plan Guidelines** (Commonwealth of Australia 2024) and has been reviewed and approved by a **suitably qualified ecologist**. The commitments of this plan are **SMART** and based on referenced or included evidence of effectiveness.<br>The approval of this plan by the Minister is to be determined. |

| Reference | Condition | Condition Requirement | Plan Reference | Demonstration of how the plan addresses condition requirements and commitments made in the plan to address condition requirement |
|---|---|---|---|---|
| **3** | 6(a) | Include detailed information on the residual impacts to **Striped Legless Lizard** that will be compensated for by the offset (comprising both the **securement** of all offset sites and the **habitat quality** improvements to be achieved at each offset site), including all areas of habitat, and the **habitat quality**, for **Striped Legless Lizard** at all locations impacted by the Action which the offset is to address | Offset Strategy<br>Appendix A Figure 2<br>Section 2.0<br>Section 5.0 | A detailed analysis of the condition and quality of SLL habitat at the impact site is provided within Sections 2 and 4 of the Offset Strategy (included as Appendix A).<br>The approval holder will compensate for residual impacts through the acquisition and management of 12.2 ha of SLL habitat.<br>Section 2.0 outlines performance targets and triggers. Section 5.0 outlines management actions (and timeframes) to mitigate risks and achieve ecological benefits. |
| **4** | 6(b) | Include the relevant **protected matters** and a reference to the **EPBC Act** approval conditions to which the OMP refers, | Table 1-1 (this table)<br>Appendix C | The relevant approval conditions are addressed in the adjacent references. The approval holder will adhere to these conditions. |
| **5** | 6(c) | Include detailed information and a shapefile specifying the location, area and boundaries of each offset site, | Figure 1<br>Section 1.6 | The location and area of the offset site is shown in the GIS map, Figure 1, which includes the shapefile of the offset boundary.<br>A description of the offset site is provided in Section 1.6. |
| **6** | 6(d) | Include detailed baseline information on the areas of the habitat, and the **habitat quality**, for **protected matters** at each offset site, | Offset Strategy<br>Appendix A | A detailed analysis of the condition and quality of SLL habitat at the offset site is provided within Sections 3 and 4 of the Offset Strategy (included as Appendix A). PCS will undertake three years of baseline monitoring, consistent with PCT monitoring methodologies as per the EOAMS. |
| **7** | 6(e) | Include achievable offset outcomes, relevant to the conservation of **Striped Legless Lizard**, for each offset site and the timeframes in which they will be achieved, | Section 2.0<br>Section 5.0<br>Appendix D | Section 2.0 outlines performance targets and triggers. Section 5.0 outlines management actions (and timeframes) to mitigate risks and achieve ecological benefits. The performance targets represent ecological benefits through improved habitat quality or a reduction of key threats.<br>Commitments made in this OMP to achieve ecological benefits to SLL are summarised in Appendix D. |

| Reference | Condition | Condition Requirement | Plan Reference | Demonstration of how the plan addresses condition requirements and commitments made in the plan to address condition requirement |
|---|---|---|---|---|
| **8** | 6(f) | Include a table summarising all commitments to achieve the offset outcomes for **protected matters** at each offset site and a reference to where each commitment is detailed in the OMP, | Table 1-1 (this table)<br>Appendix D | This table summarises where the approval conditions are addressed within this OMP. Appendix D provides an overview of commitments made within this OMP. |
| **9** | 6(g) | Include reporting and review mechanisms to inform the **department** annually regarding compliance with the implementation of management measures and the attainment and maintenance of the offset outcomes, | Section 7.0 | Review and reporting will be undertaken in accordance with the requirements of the approval as detailed in Section 7.0 This includes annual monitoring and reporting for OMP performance outcomes, and an annual compliance report against approval conditions. |
| **10** | 6(h) | Include an assessment of risks to achieving each offset outcome and what risk management measures and/or strategies will be applied to address these, | Section 4.0<br>Appendix C | Risks associated with this OMP and management strategies (i.e., corrective actions where these risks occur) are outlined in Section 2.0. Section 4.0 provides background on the risk assessment process. An adaptive management approach will be implemented to mitigate risks. |
| **11** | 6(h)i | Include a monitoring program, which must [see rows below] | Section 2.0<br>Section 3.0 | The adjacent references detail management and ecological monitoring programs.<br>The approval holder will undertake these monitoring requirements as per the methodology and frequency detailed in the approved OMP.<br>Management and monitoring relating to herbage mass, weeds and fire control, will include the broader area to allow effective management of external threats to the offset site. |
| **12** | 6(h)ii | Specify measurable performance indicators and the timeframes for their achievement to gauge attainment of each offset outcome for the **protected matters**. | Section 2.0<br>Section 3.0 | The adjacent references include references to the monitoring program and performance targets, which represent ecological benefits through improved habitat quality or a reduction of key threats.<br>PCS will undertake monitoring actions, as specified in the approved OMP, and evaluate results against performance targets and triggers. |

| Reference | Condition | Condition Requirement | Plan Reference | Demonstration of how the plan addresses condition requirements and commitments made in the plan to address condition requirement |
|---|---|---|---|---|
| **13** | 6(h)iii | Specify trigger values for corrective actions | Section 2.0<br>Section 3.0 | The adjacent references include references to trigger values.<br>PCS will undertake monitoring actions, as specified in the approved OMP. Where results meet or exceed these trigger values, the approval holder will implement the relevant corrective actions. |
| **14** | 6(h)iv | Specify the proposed timing (including season/time of day/frequency) methods and effort, and an explanation of how these will be effective for this purpose, of monitoring to detect trigger values, changes in the performance indicators and to gather evidence that effectively demonstrates actual progress towards, attainment of and maintenance of all offset outcomes for the protected matters | Section 2.0<br>Section 3.0 | The timing and frequency of monitoring is addressed in the adjacent references.<br>PCS will undertake monitoring in accordance with the timing and frequencies specified in the approved OMP. |
| **15** | 6(i) | Include corrective actions to be implemented to ensure all offset outcomes for the **protected matters** are achieved or maintained if trigger values are reached or performance indicators are not achieved in the specified timeframes, | Section 2.0 | Corrective actions and associated performance targets and trigger values are addressed in the adjacent reference. Where monitoring detects results that exceed trigger values, PCS will workshop appropriate corrective actions. |
| **16** | 6(j) | Include references to related plans and conditions of approval | Table 1-1 (this table)<br>Appendix C<br>Section 8.0 | The EPBC referral conditions applicable to this OMP are outlined in this table. EPBC 2020/8768 is provided in Appendix C. Referenced plans are included throughout the document and provided in Section 8.0. The approval holder will adhere to these conditions. |
| **17** | 6(k) | Include how each offset site will be protected, including **securement**, and all offset outcomes maintained or improved, at least until the expiry of the approval. | Section 1.5 | The site will be secured in perpetuity as a Nature Reserve through the Major Plan Amendment (MPA) process. PCS will be responsible for land management. Following the life of the approval period (until 30 June 2052), the site will be incorporated in Canberra Nature Park to ensure protection in perpetuity.<br>The use of the offset site has been formally supported by the CED. The process to legally secure the offset area will coincide with the standard 12-18 month duration of a MPA.<br>In the interim, a land custodian agreement from CED (dated 02/06/2023 and updated 25/06/2024), for the use of block no. |

| Reference | Condition | Condition Requirement | Plan Reference | Demonstration of how the plan addresses condition requirements and commitments made in the plan to address condition requirement |
|---|---|---|---|---|
| | | | | 739 as an offset for the Monaro Highway Project has been provided to demonstrate the commitment to secure the offset. |
| **18** | 7 | To compensate for the residual impacts of the Action on **Striped Legless Lizard**, the approval holder must provide written evidence of the initiation of **securement** of all offset sites specified in the approved OMP before undertaking any **clearing**, **construction** or other physical activity associated with the Action outside of the **Package 1C Early Works Boundary** and provide written evidence of final **securement** within 18 months of the **commencement of the Action**. | Section 1.5 | As per condition 7 of EPBC 2020/8768, physical activity associated with the Action outside the Package 1C Early Works Boundary cannot commence until written evidence of the initiation of **securement** of all offset sites is provided to DCCEEW.<br>This requirement is included in Section 1.5 (Introduction) and Section 6.0 (Purpose and objectives) of the CEMP.<br>In the interim prior to initiation of securement, a land custodian agreement from CED (dated 02/06/2023 and updated 25/06/2024), for the use of block no. 739 as an offset for the Monaro Highway Project has been provided to demonstrate the commitment to secure the offset. |
| **19** | 8 | The approval holder must achieve all offset outcomes for each offset site specified in the approved OMP by the time specified in the OMP. Once achieved, the approval holder must maintain or exceed the offset outcomes at least until the expiry date of this approval. From the date of approval of the OMP the approval holder [see rows below]: | Section 2.0<br>Section 5.0 | Section 2.0 outlines performance targets and triggers. Section 5.0 outlines management actions (and timeframes) to mitigate risks and achieve ecological benefits. The performance targets represent ecological benefits through improved habitat quality or a reduction of key threats.<br>Commitments made in this OMP to achieve ecological benefits to SLL are summarised in Appendix D. |
| **20** | 8(a) | Must have each offset site assessed annually by **a suitably qualified ecologist** to determine if the offset outcomes specified in the OMP have been achieved | Section 2.0<br>Section 3.0 | The adjacent references include references to the monitoring program and performance targets, which represent ecological benefits through improved habitat quality or a reduction of key threats.<br>PCS will undertake monitoring actions, as specified in the approved OMP, and evaluate results against performance targets and triggers. |

| Reference | Condition | Condition Requirement | Plan Reference | Demonstration of how the plan addresses condition requirements and commitments made in the plan to address condition requirement |
|---|---|---|---|---|
| **21** | 8(b) | Must submit to the **department** a report prepared by a **suitably qualified ecologist** detailing the presence of **Striped Legless Lizard** and **habitat quality** of and their habitat within each offset site within 20 business days after each **ACR period**, and | Section 3.0<br>Section 7.0 | Section 3.0 outlines monitoring will be undertaken each year to determine the presence of SLL and the habitat quality of the offset<br>Annual reporting to the Department will be carried out in accordance with Section 7.0, including the outcomes of the monitoring of Section 3.0. |
| **22** | 8(c) | Must notify the **department** in writing of any offset outcomes that has not been achieved at all offset sites<br>and the likely reasons that this/these offset outcomes have not been met. | Section 7.0 | Section 7.0 outlines that if the offset outcomes are not being met, the annual OMP compliance report to the Department will describe, to the Department, the likely reasons why this has not occurred. |
| **23** | 9 | The approval holder may, at any time, apply to the **Minister** for a variation to an action management plan approved by the **Minister** by submitting an application in accordance with the requirements of section 143A of the **EPBC Act**. If the **Minister** approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of any previous version of the action management plan. | Section 7.1 | Section 7.1 outlines that any variation to the OMP must be submitted to the Department for Minister approval, and if approved, the revised plan must be implemented. |
| **24** | 12 | The approval holder must maintain accurate and complete **compliance records** and document the procedure for recording and storing **compliance records.** | Section 7.3 | The responsibility for the maintenance and completion of compliance records is outlined in Section 7.3. |
| **25** | 13 | If the **department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **department** within the timeframe specified in the request. | Section 7.3 | Provision of compliance records is outlined in Section 7.3. |

| Reference | Condition | Condition Requirement | Plan Reference | Demonstration of how the plan addresses condition requirements and commitments made in the plan to address condition requirement |
|---|---|---|---|---|
| **26** | 14 | Wherever these conditions require the approval holder to submit any **plan** to the **department**, all such **plans** must be submitted to the **department** electronically. | Section 7.3 | This requirement is included in Section 7.3. |
| **27** | 15 | Unless otherwise agreed to in writing by the **Minister**, the approval holder must publish each **plan** on the **website** within 15 business days of the date:<br>a. the **plan** is approved by the **Minister** in writing, if the **plan** requires the approval of the **Minister**,<br>b. the **plan** is submitted to the **department** in accordance with a requirement of these conditions, if the **plan** does not require the approval of the **Minister**. | Section 7.3 | Table 7-2 includes a publication schedule for plans and reports under EPBC2020/8768. |
| **28** | 16 | The approval holder must keep all **plans** published on the **website**, in a format that is easily accessible and downloadable, from the first date which that **plan** must be published and until the expiry date of this approval. This requirement applies to all current and superseded versions of **plans**. | Section 7.3 | This requirement is included in Section 7.3. |
| **29** | 17 | The approval holder is required to exclude or redact **sensitive ecological data** from any version of **a** plan before that **plan** is published on the **website** or otherwise provided to a member of the public. If **sensitive ecological** data is excluded or redacted from a **plan**, the approval holder must notify the **department** in writing what exclusions and redactions have been made in the version published on the **website**. | Section 7.3 | This requirement is included in Section 7.3. |
| **30** | 18 | The approval holder must ensure that **any monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the Guidelines for biological survey and mapped data, Commonwealth of Australia 2018, or as otherwise specified by the **Minister** in writing. | Section 7.3 | This requirement is included in Section 7.3. |

| Reference | Condition | Condition Requirement | Plan Reference | Demonstration of how the plan addresses condition requirements and commitments made in the plan to address condition requirement |
|---|---|---|---|---|
| **31** | 19 | The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the Guide to providing maps and boundary data for EPBC Act projects, Commonwealth of Australia 2021, or as otherwise specified by the **Minister** in writing. | Section 7.3 | This requirement is included in Section 7.3. |
| **32** | 20 | The approval holder must submit all **monitoring data** (including **sensitive ecological data**), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the **department** within 20 **business days** following the end each **ACR period** except where otherwise specified in a **plan**. | Section 7.3 | This requirement is included in Section 7.3. |
| **33** | 21 | The approval holder must prepare a **compliance report** for each **Annual Compliance Report period (ACR period).** | Section 7.3 | The responsibility and timing for the preparation of the compliance report is stated in Section 7.3 and Table 7-1 includes a reporting schedule. |
| **34** | 22 | The approval holder must ensure each **compliance report** includes:<br>a. accurate and complete details of compliance and any non-compliance with:<br>i. each condition attached to this approval decision, and<br>ii. all commitments made in each **plan**,<br>b. a schedule of all **plans** in effect in relation to these conditions during the **ACR period**,<br>c. accurate and complete details of how each **plan** was implemented during the **ACR period**, and<br>d. if any **incident** occurred, accurate and complete details of each **incident**. | Section 7.3 | The content required for the compliance report is outlined in Section 7.3. |

| Reference | Condition | Condition Requirement | Plan Reference | Demonstration of how the plan addresses condition requirements and commitments made in the plan to address condition requirement |
|---|---|---|---|---|
| **35** | 23 | The approval holder must ensure each **compliance report** is completed to the satisfaction of the **Minister** and is consistent with the Annual Compliance Report Guidelines, Commonwealth of Australia 2023. | Section 7.3 | This requirement is included in Section 7.3. |
| **36** | 24 | The approval holder must, within 20 **business days** following the end each **ACR period**, in a format that is easily accessible and downloadable, publish on the **website**:<br>a. each compliance report, and<br>b. a **shapefile** showing all **clearing** of **protected matters**, and their habitat, undertaken within the **ACR period**. | Section 7.3 | These requirements are included in Section 7.3, which also includes Table 7-2 that includes a publication schedule for plans and reports under EPBC2020/8768. |
| **37** | 25 | The approval holder must:<br>a. Exclude or redact **sensitive ecological data** from each **compliance report** and **shapefile** published on the **website** or otherwise provided to a member of the public.<br>b. If **sensitive ecological data** is excluded or redacted from a version of a **compliance report** published or otherwise provided to a member of the public, submit the full **compliance report** to the department within 5 **business days** of its publication on the **website** and notify the **department** in writing what exclusions and redactions have been made in the version published on the **website** or otherwise provided to a member of the public.<br>c. If **sensitive ecological data** is excluded or redacted from a version of a **shapefile** published or otherwise provided to a member of the public, submit the full **shapefile** to the **department** within 5 **business days** of its publication on the **website** and notify the **department** in writing what exclusions and redactions have been made in the version published on the **website** or otherwise provided to a member of the public. | Section 7.3 | These requirements are included in Section 7.3, which also includes Table 7-2 that includes a publication schedule for plans and reports under EPBC2020/8768. |

| Reference | Condition | Condition Requirement | Plan Reference | Demonstration of how the plan addresses condition requirements and commitments made in the plan to address condition requirement |
|---|---|---|---|---|
| **38** | 26 | The approval holder must notify the **department** electronically, within 5 **business days** of each date of publication that the **compliance report** has been published on the **website**. In this notification, the approval holder must provide the **department** with the web address for where the **compliance report** and related **shapefile** are published on the **website**. | Section 7.3 | Table 7-2 that includes a publication schedule for plans and reports under EPBC2020/8768 including notification to the Department of publishment. |
| **39** | 27 | The approval holder must keep each **compliance report** and related **shapefile** published on the **website** from the first date which that **compliance report** must be published and until the expiry date of this approval. | Section 7.3 | Table 7-2 that includes a publication schedule for plans and reports under EPBC2020/8768 including the period the report must be published for. |
| **40** | 28 | The approval holder must notify the **department** electronically, within 2 **business days** of becoming aware of any **incident**. The approval holder must specify in each notification:<br>a. any condition or commitment made in a **plan** which has been or may have been not complied with,<br>b. a short description of the **incident**, and<br>c. the location (if applicable, including co-ordinates), date and time of the **incident**. | Section 7.3 | These requirements for incident notification are included in Section 7.3. |
| **41** | 29 | The approval holder must provide to the **department** in writing, within 12 **business days** of becoming aware of an **incident**, the details of that **incident**. The approval holder must specify:<br>a. all corrective measures and investigations which the approval holder has already taken in respect of the **incident**,<br>b. the potential impacts of the **incident**,<br>c. the method and timing of any corrective measures that the approval holder proposes to undertake to address the **incident**, and<br>d. any variation of these conditions or revision of a plan that will be required to prevent recurrence of the **incident** and/or to address its consequences. | Section 7.3 | These requirements for incident notification and corrective measures are included in Section 7.3. |

| Reference | Condition | Condition Requirement | Plan Reference | Demonstration of how the plan addresses condition requirements and commitments made in the plan to address condition requirement |
|---|---|---|---|---|
| **42** | 30 | The approval holder must ensure that an **independent audit** of compliance with the conditions is conducted for every **audit period**. | Section 7.2 | The requirements for independent audits are included in Section 7.2, as written in the EPBC approval. |
| **43** | 31 | The approval holder must submit details of the proposed **independent auditor** and their qualifications to the **department** within 10 **business days** following the end of each **audit period**. | Section 7.2 | The requirements for independent audits are included in Section 7.2, as written in the EPBC approval. |
| **44** | 32 | The approval holder must ensure the scope of each **independent audit** is sufficient to determine the compliance status for each condition of approval, and each commitment made in each **plan**. | Section 7.2 | The requirements for independent audits are included in Section 7.2, as written in the EPBC approval. |
| **45** | 33 | The approval holder must ensure the criteria for each **independent audit** and the undertaking of each independent audit are consistent with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit* and *Audit Report Guidelines, Commonwealth of Australia 2019*. | Section 7.2 | The requirements for independent audits are included in Section 7.2, as written in the EPBC approval. |
| **46** | 34 | The approval holder must submit an **audit report** to the **department** for written agreement from the **department** within 3 months following the end of each **audit period**, or as otherwise directed by the Minister in writing. | Section 7.2 | The requirements for independent audits are included in Section 7.2, as written in the EPBC approval. |
| **47** | 35 | The approval holder must ensure each **audit report** is completed to the satisfaction of the Minister and is consistent with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines, Commonwealth of Australia 2019.* | Section 7.2 | The requirements for independent audits are included in Section 7.2, as written in the EPBC approval. |
| **48** | 36 | The approval holder must publish each **audit report** on the **website**, in a format that is easily accessible and downloadable, within 10 **business days** of the date of the **department** agrees to the **audit report** in writing. | Section 7.2 | The requirements for independent audits are included in Section 7.2, as written in the EPBC approval. |

| Reference | Condition | Condition Requirement | Plan Reference | Demonstration of how the plan addresses condition requirements and commitments made in the plan to address condition requirement |
|---|---|---|---|---|
| **49** | 37 | The approval holder must notify the **department** within 5 **business days** of the date the **audit report** is published on the **website**. In this notification, the approval holder must provide the **department** with the web address for where the **audit report** is published on the website. | Section 7.2 | The requirements for independent audits are included in Section 7.2, as written in the EPBC approval. |
| **50** | 38 | The approval holder must keep each **audit report** published on the **website** from the first date which that **audit report** must be published and until the expiry date of this approval. | Section 7.2 | The requirements for independent audits are included in Section 7.2, as written in the EPBC approval. |
| **51** | 39 | Within 20 **business days** after the **completion of the Action**, and, in any event, at least 20 **business days** before this approval expires, the approval holder must notify the **department** electronically of the **date of completion of the Action** and provide **completion data**. The approval holder must submit any spatial data that comprises **completion data** as a **shapefile**. | Section 7.4 | This requirement is included in Section 7.4. |
| **52** | 40 | The approval holder must notify the **department** electronically 60 **business days** prior to the expiry date of this approval, that the approval is due to expire. | Section 7.5 | This requirement is included in Section 7.5. |

## 1.5 ESTABLISHMENT

The legal mechanism to secure the site in perpetuity as a Nature Reserve is through the MPA process. The MPA process will be initiated by iCBR upon approval of this OMP by DCCEEW and prior to commencing any physical activity associated with the Action outside of the Package 1C Early Works Boundary. The entire process is envisaged to take approximately 18 months. PCS intends the West Kenny Offset area to become an extension of Nadjung Mada Nature Reserve. A new instrument under the *Public Place Names Act 1989* (ACT) may be required to achieve this.

A land custodian agreement from CED PCS (dated 02/06/2023) for the use of block no. 739 Gungahlin as an offset for the Monaro Highway Project was provided for an offset area of 9.90 ha. Following revision of the proposed offset area by increasing it in size, an updated in-principle agreement (dated 25/06/2024) was provided to confirm that block no. 739 Gungahlin could still be used as an offset, with an increased area.

As per condition 7 of EPBC 2020/8768, iCBR must provide written evidence of the initiation of securement of all offset sites specified in this OMP before undertaking any clearing, construction or other physical activity associated with the Action outside of the Package 1C Early Works Boundary. Written evidence of the initiation of securement is the submission of an application under the *Planning Act 2023* to amend the Territory Plan. Written evidence of the final securement of the offset sites must also be provided to DCCEEW within 18 months of the commencement of the Action.

The offset area will include the southern and eastern portions of block no. 739. This OMP outlines the management of the offset with consideration given to landscape connectivity. To effectively mitigate external threats, management of herbage mass, weeds and fire fuel load will extend to the surrounding areas. Following the life of the approval period for EPBC 2020/8768, the site will be incorporated into Canberra Nature Park to ensure protection in perpetuity.

## 1.6 OFFSET SITE DESCRIPTION

West Kenny Offset consists of 12.2 ha area of exotic grasslands. The offset site has a gradual south-east slope and sits within two paddocks which are intersected by an existing fence line. One rocky outcrop and scattered stones are present within the proposed offset. The offset site is located immediately to the west of Nadjung Mada Nature Reserve (Nadjung Mada Offset) in Kenny, ACT, which contains approximately 112 ha of SLL habitat. Urban and commercial development occur to the south and west of the offset. A detailed assessment of the condition and extent of the West Kenny Offset is provided in the Offset Strategy (Stantec 2025; Appendix A).

### 1.6.1 Plants and Animals

The site is dominated by Phalaris (*Phalaris aquatica),* and other exotic pasture species. Invasive species, such as Serrated Tussock *(Nassella trichotoma*) and St John's Wort (*Hypericum perforatum*) are scattered throughout the site. A small stand of *Eucalyptus blakelyi and Eucalyptus rossii* occur in the northern portion of the site.

One SLL has been recorded within the site (Biosis 2012, cited by ACT Government 2015; Cardno, now Stantec 2022). The SLL is listed as Vulnerable under the EPBC Act. It is currently under listing assessment to be upgraded to Endangered (assessment due 30 April 2024)[1]. Under ACT legislation, the species is listed as Vulnerable (Nature Conservation Act 2014 (NC Act)). Potentially suitable habitat for SLL occurs across all 12.2 ha of the site. As per the Commonwealth Guidelines for SLL (DSEWPC 2011a), all potentially suitable habitat at a site should be considered occupied by SLL if they are detected during a survey

### 1.6.2 Existing Vegetation Condition and Extent

West Kenny has previously been mapped as predominately moderate to high quality habitat for SLL (Biosis 2012, cited by ACT Government 2015). All 12.2 ha of the site consists of exotic dominated grassland of low diversity. Detailed vegetation mapping may be required to identify Plant Community Types (PCTs), inform threat monitoring (Section 3.2) and herbage mass management.

### 1.6.3 Habitat Connectivity and Wildlife Movement

Connectivity to areas of SLL habitat in the surrounding landscape is important for genetic diversity and to maximise access to habitat refugia during periods of poor condition. The offset consists of 9.9ha of area that may be considered core habitat and 2.17 ha that is a movement corridor. The corridor is approximately 40 m wide and connects SLL habitat in West Kenny to Nadjung Mada to the east.

Old Well Station Road runs between West Kenny and Nadjung Mada. The road is being upgraded to manage increased usage from pedestrians, cyclists and PCS management vehicles. The road will not be open to public vehicle traffic. To mitigate connectivity and usage impacts, rumble grids have been included in the design. The rumble grids allow permanent vegetation corridors to remain across the road and avoid impacts from road users. Five rumble grids have been placed along the length of the road to provide multiple crossing points for SLL and other grassland fauna. Rock blankets have also been installed at two locations that are frequently inundated by water. Vegetation in air pockets within the rock blankets may also facilitate an additional two areas of connectivity for SLL.

Nadjung Mada Offset is located to the east of West Kenny Offset, however, connectivity to SLL habitat in Nadjung Mada is reduced by the presence of Old Well Station Road. Habitat crossings for SLL have been constructed, but are as yet, untested. Nadjung Mada contains approximately 112 ha of SLL habitat mapped on the ACTmapi Significant Species, Vegetation Communities and Registered Trees database and previous records of SLL occur within the site and adjacent lands. Nadjung Mada has previously been mapped as moderate to high quality habitat for SLL (Biosis 2012, cited by ACT Government 2015). If connectivity across Old Well Station Road can be maintained, West Kenny Offset will assist in improving the outcomes of Nadjung Mada Offset, including:

- Facilitating reduced edge effects;
- Allowing a greater area of SLL habitat to be protected; and
- Enabling gene flow between the Nadjung Mada Offset and the West Kenny Offset.

[1] TSSC 2021 Finalised Priority Assessment List for the Assessment period commencing 1 October 2021. Accessed via: https://www.agriculture.gov.au/sites/default/files/documents/2021-finalised-priority-assessment-list.pdf

West Kenny Offset has limited connectivity to the west due to the canopy coverage in the woodland community. Historical records of SLL occur within this land. There is limited connectivity further to the south of the offset site, with seasonal conditions and built structures facilitating movement across Sullivans Creek. Management actions such as biomass management and weed control will be undertaken across the broader block to maintain connectivity and provide refuge habitat during years of poor condition. Figure 1 outlines SLL habitat and reserves located in close proximity to West Kenny Offset.

### 1.6.4 Ngunnawal and other peoples Connection to Country

The West Kenny Offset occurs on Ngunnawal Country, a landscape managed by Ngunnawal people for more than 25,000 years prior to European settlement. The EOAMS acknowledges the connections of Ngunnawal and other peoples to the land, and the significant contribution they have made as its first inhabitants and Traditional Custodians.

Traditional Custodians heritage items have been recorded within block no. 739 and the Sullivan's Creek catchment represents an area of tangible and intangible cultural values to the Ngunnawal people. ACT Heritage Council advice must be obtained for proposed operational or habitat restoration works which could potentially impact any heritage places or objects. Approvals under the *Heritage Act 2004* may also be required where activities may damage Traditional Custodian places or objects, as identified in ACT Heritage Council advice or heritage assessments (Table 6-2).

### 1.6.5 Historic (non-Traditional Custodians) Land Use History

The Gungahlin area was used for cropping and mixed grazing from the 1870s. West Kenny Offset has a history of pasture improvement through sowing of Phalaris and addition of superphosphate, and cattle grazing. More recently, the surrounding landscape has been subject to a high level of urban and commercial development, including the development of the suburb of Harrison to the north.

## 1.7 ZONING AND ACCESS

### 1.7.1 Canberra Nature Park Zoning

West Kenny offset will be managed in accordance with the Canberra Nature Park Reserve Management Plan (CNPRMP) 2021, and other relevant ACT legislation, policy, strategies and plans as outlined in the EOAMS (ACT Government 2021a). In accordance with the CNPMP any impacts from activities or disturbance related to construction of recreational facilities, utilities and infrastructure should not compromise conservation values. Due to the presence of SLL's and associated habitat within the offset, the offset site is being considered for zoning as a Zone 1 Core Conservation Area.

### 1.7.2 Fire Management and Zoning

West Kenny Offset is zoned within a Strategic Firefighting Advantage Zone (SFAZ). Herbage mass management undertaken during the ACT fire season (October to March, with seasonal variation) will be undertaken in accordance with ACT Bushfire Management Standards (ACT Government 2023). Fire management will be undertaken on a landscape scale. As such, 70% of the area will need to maintain a grassland fire hazard score ≤50 (SFAZ) when the curing is ≥70%. Herbage mass management may be achieved by various means including, slashing, grazing and fire, and must also be compatible with the habitat requirements of SLL to ensure environmental offset commitments are achieved. The Ecological Guidelines for Fire, Fuel and Access Management Operations 2019 (ACT Government 2019a, or its successor) outlines relevant ecological requirements.

Ecological burns were implemented within the Nadjung Mada Offset in 2022 (2.1 ha), 2023 (4.6 ha) and 2024 (9 ha). None have occurred in West Kenny Offset area.

### 1.7.3 Utilities

Utilities located nearby to the site (Figure 3) include a 375 mm sewer main running northeast to southwest across the southern portion of block no. 739, with maintenance holes at intervals along the main. The sewer main and maintenance holes fall outside of the site.

Future duplication works are planned for this sewer main. Any related works should avoid impacts to the West Kenny Offset where possible (Table 6-2). The Suburban Land Agency is a stakeholder in this duplication project.

### 1.7.4 Assets and Infrastructure

Current or inherited assets and infrastructure located within the site (Figure 3) include:

- Approximately 560 m of stock fencing, located within the southern extent of the site; and
- Two access gates within the site.

Further perimeter and internal fencing is present within block no. 739.

### 1.7.5 Access and Signage

Management vehicles can access the site through existing vehicle gates located at the northern and southern (intersecting with Morisset Road) ends of Old Well Station Road. Old Well Station Road is a management trail within Nadjung Mada Offset, meaning it is not accessible to motor vehicles driven by the public. The site can be accessed via a slashed trail off the road, running adjacent to the southern extent of the site. There is one vehicle gate along an internal fence line, however, no suitable trails exist within the site. Motor vehicles and machinery should not be used within the site, nor within Nadjung Mada Offset, unless required for specific management actions (e.g. slashing, fire management, threat management). Contractors and other non-PCS personnel are not permitted to use motor vehicles within Nadjung Mada Offset unless licensed (under a nature conservation licence) to do so. This prohibition will also apply to the West Kenny Offset once it is reserved.

Existing signage relating to Nadjung Mada Offset is present at access gates at the southern and northern nearby ends of Old Well Station Road. Existing signage will be modified to reflect the new reserve boundary on the inclusion of West Kenny Offset into Nadjung Mada Nature Reserve. Additional signage may be installed to increase public awareness of the site's values and promote the prohibited, restricted and permitted activities applicable to the site.

### 1.7.6 Permitted Recreation Activities

Currently West Kenny Offset site is not open to the public. The site will be managed in accordance with the objectives of this OMP and consistent with the Canberra Nature Park Reserve Management Plan (ACT Government 2021). West Kenny will be included within the ACT Reserve System to ensure management in perpetuity. An ACT Government Activities Declaration (AD) under section 256 of the NC Act will be produced for the offset site to define prohibited and restricted activities and ensure that these are legally enforceable, protecting the site's values from the impacts of undesirable activities. In practice this will likely mean expanding any existing AD applying to Nadjung Mada to include the site.

To protect reserve values and assist in meeting reserve management objectives, once the reserve is open to the public, only passive, low-impact educational and recreational activities will be permitted within the West Kenny Offset (Table 1-2, Table 1-3).

**Table 1-2 Recreational activities to be permitted and restricted at West Kenny**

| Permitted recreational activity | Conditions and restrictions |
|---|---|
| **Flying (powered, low altitude machines e.g. ultralights and drones)** | Allowed with a permit or where authorised for reserve management or firefighting purposes. |
| **Geocaching** | Permitted, conditional on staying on designated walking tracks, not digging holes and burying objects, depositing objects in rock shelters or other cultural heritage sites, or littering. Larger events may require application for permission. |
| **Non-commercial group activities (e.g. bush walking clubs, social clubs, tour groups)** | Bush walking and social clubs, ranger guided activities permitted. Orienteering conditional on permit approval. |
| **Walking** | Permitted. Walkers will be encouraged to stay on designated walking tracks and management trails. |

**Table 1-3 Activities to be prohibited at West Kenny**

| Activity | Permission Status |
|---|---|
| **Camping** | Not permitted |
| **Cycling** | Not permitted |
| **Dogs**<br><br>**Under the *Nature Conservation Act 2014*, dogs are not allowed in nature reserves unless an Activities Declaration allows for dog walking, as is the case in some Canberra Nature Park reserves.**<br><br>**On-the-spot fines apply for taking dogs into prohibited areas or not having the necessary equipment to remove droppings or not removing droppings.** | Not permitted |
| **Horse riding** | Not permitted |
| **Lighting of Fires** | Not permitted (excepting those lit for fire management purposes by authorised people). |
| **Motorised vehicle use** | Not permitted (except for management purposes by authorised people). |
| **Hunting** | Not permitted |
| **Firewood collection and chainsaw use** | Not permitted |

**Figure 1-3 Utilities, Assets and Infrastructure**




This document has been prepared based on information provided by others as cited in the data sources. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

## 1.8 GOVERNANCE – CUSTODIANSHIP AND KEY STAKEHOLDERS

PCS is the current custodian of the West Kenny Offset. The EOAMS outlines the roles and responsibilities of relevant stakeholders in managing offset sites. Key stakeholders will include:

- PCS, as the custodian and manager of the site;
- The Dhawura Ngunnawal Caring for Country Committee which works collaboratively with the ACT Government Environment, Heritage and Parks Group to support the integration of cultural knowledge in managing Country;
- ACT Government Office of Nature Conservation which may be involved in monitoring and research unrelated to the offset conditions of approval and may provide guidance and conservation advice to PCS;
- The ACT Heritage Council is the statutory authority for heritage in the ACT. Council advice and approvals are required for Traditional Custodian heritage management matters and will be involved in actions identified within this OMP;
- Representative Aboriginal Organisations (RAOs), which have been declared by the Minister under Section 14 of the *Heritage Act 2004* and have a formal statutory role in Traditional Custodian heritage assessment and management. Declared RAOs are:
  - Buru Ngunnawal Aboriginal Corporation;
  - King Brown Tribal Group;
  - Mirrabee; and
  - Ngarigu Currawong Clan.
- Icon Water has a buried asset running to the south of the site, with duplication works planned. SLA is a stakeholder in this duplication project.

# 2.0 PERFORMANCE TARGETS AND TRIGGERS

## 2.1 CONSERVATION AND MANAGEMENT OBJECTIVES

The West Kenny Offset will be managed in accordance with this OMP. The objective of this OMP is to maintain the quality and extent of SLL habitat within the offset site. As offset sites form part of the ACT Reserve System, conservation objectives must also be consistent with the objectives of the CNPRMP and the Conservation Effectiveness Monitoring Program framework (Brawata, Stevenson and Seddon 2017). This includes:

- Undertaking good land management, including appropriately implementing ACT Government reserve management programs, such as weed, pest, biomass and fire management; and
- Gaining more knowledge of how ecosystems and their components (including MNES) function and interact, and how management actions influence these processes.

Table 2-1 outlines performance targets to meet the commitments of the Offset Strategy and this OMP.

## 2.2 PERFORMANCE TARGETS, MANAGEMENT TRIGGERS AND CORRECTIVE ACTIONS

Performance targets are used to assess the achievement of “a measurable conservation gain”, the overarching principle of the EPBC Act Environmental Offsets Policy. This is evaluated by considering improvement from baseline condition. Performance targets for West Kenny Offset are summarised in Table 2-1. As per the EOAMS, the performance target for West Kenny will be met by demonstrating that habitat quality for SLL is maintained and improved. Targets are based on the three components defined in the EPBC Offsets Assessment Guide: site condition, site context, and species stocking rates (DSEWPC 2012b). The EOAMS provides MNES-specific benchmark metrics to guide targets and triggers for management intervention.

Three-year baseline metrics will be developed for West Kenny Offset to provide triggers for intervention and/or corrective actions (Table 2-2). In determining appropriate corrective actions, consideration is given to natural variability. Although habitat quality assessments were undertaken as a part of the Offset Strategy, the EOAMS adopts its own determination to ensure consistency across the reserve system.

**Table 2-1 West Kenny performance targets for MNES**

| Value | Management Unit | Performance target category | Description of performance targets and timeframe | Triggers | Monitoring |
|---|---|---|---|---|---|
| **Striped Legless Lizard habitat** | SLL Habitat | Habitat quality and extent | Maintain ecological condition of existing SLL habitat (12.2 ha) (e.g., maintain herbage mass and vegetation height utilising appropriate disturbance regimes) – within the approval period[2]. | Ecological condition metrics fall below baseline values. | Monitored September to December |
| | | | Maintain extent and connectivity of SLL habitat – within the approval period[2]. | Ecological condition metrics fall below baseline values.<br>Increased threats (e.g. increased weeds). | Monitored September to December |
| | | | Enhance ecological condition of SLL habitat (e.g., Restore the average grass height to 10-20 cm; Maintain grass cover at least to baseline extent, with an aim to achieve<br>>75% cover through natural regeneration; Ensure tree and shrub cover remains at less than 10% within each 10 ha segment of the area; Prohibit shrub and tree planting; Prohibit fertiliser application; Pest management as part of broader PCS invertebrate pest programs, with monitoring for foxes, cats and rabbits already undertaken. | Ecological condition metrics do not improve towards performance targets for SLL habitat (over a 5-year period).<br>Increased threats (e.g. increased pests). | Monitored September to December |

[2] The life of the approval period of EPBC 2020/8768 is until 30 June 2052, after which the offset area will be incorporated into Canberra Nature Park.

**Table 2-2 Fauna metrics within West Kenny and associated triggers and actions**

| Trigger measure | Species | Baseline value | Metric | Trigger and action |
|---|---|---|---|---|
| **Fauna occupancy** | SLL | 3-year baseline to be calculated in 2026 using data collected in 2023, 2024 and 2025. | Number of detections of SLL during grids/tiles survey | *If an index shift in mean occupancy is under 1 standard deviation of the 3-year baseline, this will trigger a discussion to determine if an intervention or an action should occur.* |

# 3.0 MONITORING PROGRAM

The West Kenny Offset will be monitored annually until the expiry of the approval (30 June 2052) by a suitably qualified ecologist[3] to determine if the offset outcomes specified in the OMP have been achieved, and if they are not, must explain the reasons why the offset outcomes have not been achieved. This assessment will include the presence of SLL within the offset site and the quality of habitat. The methods and results of the assessment will be included in the annual OMP compliance report that will be submitted to DCCEEW (see Section 7.3.2).

PCS implements a standard methodology, under the PCS Environmental Offsets Ecological Monitoring Program (EOEMP), to monitor threatened communities and species. The EOEMP aligns with the Conservation Effectiveness Monitoring Program framework to inform the management of conservation values within the ACT. The EOEMP aims to track long term patterns of MNES (e.g. abundance, condition) and assess the effects of management actions on MNES, informing progress towards performance targets and enabling evaluation of management actions and the implementation of adaptive management.

Long-term monitoring sites have been established at West Kenny Offset to collect ecological monitoring metrics. Initial advice from PCS suggests:

- A minimum of two reptile monitoring points within the offset area, with 3 sub-plots of 8 tiles (24 per point) and;
- A minimum of two permanent herbage mass points situated within the reptile monitoring points.

Field surveys will be undertaken during the active period for SLL. Table 3-1 outlines the schedule for the monitoring program. Although the initial assessments of habitat quality (Stantec 2025) are considered within performance targets, the EOAMS determines a baseline using three years of monitoring data to reduce the impact of seasonal variation in conditions. As such, a new baseline assessment of habitat quality will be undertaken when PCS assumes land management responsibility. As per standard PCS methodology, three years of baseline monitoring must be undertaken.

Up to date benchmark condition metrics ranges suitable for SLL are available within the EOAMS Appendix. Monitoring metrics provide an early indication of management effectiveness and ensure any required corrective actions are implemented within a timely manner. Monitoring data will also be used for the evaluation of any corrective actions.

## 3.1 THREATENED SPECIES

Permanent SLL monitoring plots, consisting of artificial shelter arrays, have been established and monitoring data collected in the 2023, 2024 and 2025 field seasons to form the three-year SLL baseline for West Kenny. Survey methodology for SLL is provided in the EOEMP Report 2018-19 (ACT Government, 2020a).

[3] Suitably qualified ecologist" is defined in EPBC2020/8768.

## 3.2 THREATS AND THREATENING PROCESSES

The EOEMP incorporates threat monitoring into its design. This includes assessment of the density of important and invasive weeds (African Lovegrass, Chilean Needle Grass, Serrated Tussock, St John's Wort, Saffron Thistle and Patterson's Curse) and other vegetation and soil metrics (exotic ground cover, grass height, grass cover and thatch density). Other threats, such as invasive plants, feral and native herbivores, and feral predators are additionally monitored through other ACT Government monitoring programs.



Table 3-1 outlines the schedule for the monitoring program, baseline monitoring is depicted in grey shading and high priority (core compliance) monitoring depicted in blue shading.

**Table 3-1 MNES monitoring schedule at West Kenny Offset.**

| Monitoring Activity | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SLL Population Monitoring (tiles)** | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| **Habitat assessment (step point (herbage mass) and weed density** | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

# 4.0 RISK MANAGEMENT

## 4.1 RISKS

The EOAMS implements a risk management framework to ensure performance targets and objectives are met for each offset site. The EOAMS risk register, adapted from the Australian Capital Territory Insurance Authority (ACTIA), was used to conduct a risk assessment for West Kenny Offset. This register has been adopted to ensure a consistent approach to risk assessment of offset sites, ensuring the consideration of all relevant risks to the management and performance of West Kenny Offset. The EOAMS risk assessment process acknowledges the inherent level of risk associated with the uncertainty of natural systems and accepts the necessity of some risk taking in working towards conservation gain, ensuring these risks are managed through rigorous monitoring and review. The risk assessment guides the prioritisation of management actions. Further information on the risk assessment process is available in the EOAMS.

The sources and consequences of all risks considered relevant to the performance targets and conservation objectives for SLL are detailed in the West Kenny Risk Register (Appendix C). Management actions designated to address identified risks are outlined in Section 4.0. Reviews of the OMP will include a review of all risks identified in the West Kenny Risk Register, including appropriateness of actions within a stochastic natural system and responses to previous actions.

# 5.0 RESERVE MANAGEMENT

## 5.1 MANAGEMENT UNITS

To effectively manage values within an offset site, management units are delineated to define where management focus is to be given for a specific value or values. Management units enable PCS staff to understand spatially where commitments, objectives and targets should be met and worked towards.

West Kenny Offset provides habitat for one MNES (SLL) and thus all 12.2 ha have been assigned to one SLL habitat management unit. As the offset site occurs within a broader, contiguous landscape, landscape processes should be managed at a larger scale. This will include management of herbage mass, weeds and fire control both within the offset site and the surrounding areas to allow effective management of external threats to the offset site.

## 5.2 WEED AND HERBAGE MASS MANAGEMENT

West Kenny Offset will be maintained in accordance with SLL requirements (as identified in the EOAMS and Ecological Guidelines (ACT Government 2019a)), to meet ACT Bushfire Management Standards (ACT Government 2025) and achieve environmental offset commitments. Herbage mass will be managed through slashing, ecological grazing and eco-burns (ACT Government 2021). Weeds and herbage mass will be monitored as detailed in the EOEMP Report 2018-19. This methodology is monitored in accordance with the ACT Government's Herbage Mass Guidelines (ACT Government 2020b) and M&R Plan Monitoring Schedule. Management must also be considered for the areas surrounding the offset site due to the potential threats from these areas.

## 5.3 HABITAT ENHANCEMENT

West Kenny Offset SLL habitat quality will be enhanced through appropriate management actions undertaken by PCS. Current ecological condition will be enhanced through grass height restoration and maintenance, tree and shrub removal, planting and fertiliser prohibition and pest management actions. By managing threats and enhancing habitat quality, the offset area will aim to maintain viable, wild populations of SLL, supporting national conservation goals.

## 5.4 MANAGEMENT SUPPORT TOOLS

PCS has developed spatial tools (Table 5-1) designed to inform and aid adaptive management. These tools track threat management activities to inform the planning and implementation of restoration projects, and support various other activities undertaken within the PCS offsets reserve network (e.g., spraying, slashing, grazing activities).



**Table 5-1 Adaptive management support tools utilised by PCS for improved reserve management**

| Tool | Description |
|---|---|
| **ACT Research Sites** | A web layer capturing ecological research project sites, including past and current research locations. |
| **Eco Burn Planning Tool** | A web map to assist in planning ecological burning. A function of the RAPID tool, it also includes BOP information. Information for planned ecological and hazard reduction burns within PCS reserves is accessible through this tool. |
| **Herbage Mass Dashboard** | Guided by the Herbage Mass Working Group, herbage mass monitoring is undertaken across Canberra Nature Park to inform adaptive management. The dashboard shows summarised data that PCS land managers and decision makers can use to interact with and interrogate the data to explore changes over time, prioritise actions, and review outcomes of herbage mass management activities. |
| **Online weeds management tools** | Provide guidance for weed control methods, information and guidance for control prioritisation, plant ID links, information on using management apps, threatened species locations, trends in weeds density based on EOEMP data, and mapping of treated and untreated weeds. Tools include the PCS Invasive Plants Control Plan 2020-25, annual weeds Operations Dashboards (searchable by financial year), and the Offsets Weed Density Monitoring Dashboard. |
| **Online pest management tools** | Reserve Security Camera Monitoring layer enables data collection when security, vertebrate pest, or human activity monitoring cameras are triggered. Can be viewed by live stream via an app. An additional fox program feature layer allows points to be created for camera locations, fox dens, traps, foxes trapped, fumigated dens, poisoned locations, shot locations, and baits. Used to track, relocate and monitor control actions at the offset and surrounds. |
| **Restoration and Projects Information Database (RAPID)** | Environmental Offsets Operations dashboard in which PCS staff can spatially view, plan, and record restoration and enhancement project information in the Offset, and the offsets reserve network. Information includes planting, seeding and maintenance details, proposed ecological burns, mapped treated weeds by financial year, as well as vegetation and herbage mass monitoring data. The tool also allows tracking of past and current biomass management activities. |
| **Spatial Offsets Management Plans** | Provides key OMP information and guidance for PCS staff, including Management Units with goals for meeting improvement and weeds management objectives across the offset. |

# 6.0 MANAGEMENT ACTIONS

Management actions at West Kenny Offset, implementation responsibility (Table 6-1), and estimated timeframes for completion are outlined in the following tables. Tables have been categorised into actions associated with Compliance (Table 6-2), Threat management (Table 6-3), Capital (assets and infrastructure) (Table 6-4), Ecological restoration (Table 6-5), and Monitoring, assessment and research (Table 6-6). Management of the offset site will include the implementation of ACT Government weed, pest and fire management programs, as appropriate.

**Table 6-1 Acronyms describing PCS group implementation responsibility**

| Acronym | Description |
|---|---|
| **PCS** | Parks and Conservation Service |
| **O** | Operations |
| **Pr** | Projects |
| **Pl** | Planning |
| **M** | Monitoring |
| **TCE** | Traditional Custodian Engagement |

**Table 6-2 Management actions – Compliance, Administration and Planning**

| Activity | Description | Implementation | Timeframe for Completion | Risk Reference |
|---|---|---|---|---|
| **Securing offset arrangements** | 1. Secure West Kenny Offset through MPA process. | iCBR | 12-18 months from approval of this OMP | 1 |
| **Mitigation of public land use impacts** | 1. Activities Declarations (which are notifiable instruments under the NC Act) must be brought into effect for West Kenny; | PCS (Pl) | Post Nature Reserve establishment and MPA process | 2, 5, 25, 27, 28, 29, 30, 31 |
| | 2. Activities Declaration signage must be displayed at the entrances to the nature reserve. | PCS (Pr, O) | Post Nature Reserve establishment and MPA and AD process | 2, 5, 25, 27, 28, 29, 30, 31 |
| **Mitigation of impacts relating to Kenny suburb development** | 1. Liaise with relevant stakeholders (SLA, Icon Water) as required to avoid impacts associated with Kenny Suburb development (e.g. sewer line duplication). | PCS | Ongoing | 5 |
| **Integration with the Canberra Nature Park Reserve Management Plan** | 1. Manage West Kenny Offset as part of Canberra Nature Park in accordance with the CNPRMP and other relevant ACT legislation, policy, strategies, and plans. | PCS | Ongoing | 5, 25 |

MANAGEMENT ACTIONS

| Activity | Description | Implementation | Timeframe for Completion | Risk Reference |
|---|---|---|---|---|
| **Engagement with Ngunnawal community and other peoples** | Work with the Dhawura Ngunnawal Caring for Country Committee (or an equivalent committee) and other peoples to: | | | |
| | 1a. Consult with Ngunnawal community and other peoples to identify and implement Ngunnawal and other peoples cultural values and aspirations for the management of the reserve.<br>Identify the Ngunnawal and other peoples tangible and intangible values; | PCS (Pr, Pl, TCE) | Ongoing | 4 |
| | 1b. Consult with Ngunnawal community and other peoples to investigate options for implementing Ngunnawal and other peoples cultural practices within management; | PCS (Pr, Pl, TCE) | Ongoing | 4 |
| | 1c. Consult with Ngunnawal community and other peoples to recognise men's and women's business and culturally sensitive areas within West Kenny if applicable. | PCS (Pr, Pl, TCE) | Ongoing | 4 |
| | 2. Consider requirements to implement a Ngunnawal name for the Reserve. | PCS (Pr, Pl, TCE) | To be addressed alongside MPA | 4 |
| | 3. Adhere to the ACT Aboriginal and Torres Strait Islander Agreement 2019- 2028 (ACT Government and Aboriginal and Torres Strait Islander Elected Body 2019) and the Ngunnawal CED action plan phase one extension (ACT Government 2019b). | PCS | Ongoing | 4 |
| **Management of heritage values** | 1. ACT Heritage Council advice must be obtained for proposed operational or habitat restoration works which could potentially impact any heritage places or objects. Approvals under the *Heritage Act 2004* may also be required where activities may damage Traditional Custodian places or objects, as identified in Council advice or heritage assessments. | PCS to engage suitably qualified expert if required | As required | 4, 13 |

MANAGEMENT ACTIONS

| Activity | Description | Implementation | Timeframe for Completion | Risk Reference |
|---|---|---|---|---|
| **Bushfire risk mitigation** | 1. During the ACT fire season (October- March, subject to seasonal variation), maintain biomass to ACT Bushfire Fuel Management Standards, as described within the ACT Strategic Bushfire Management Plan 2025-2030 (SBMP) (ACT Government 2025) and Bushfire Operations Plan (BOP)(Annual) within the offset site and broader management area.<br>Management operations required under the BOP should be implemented following current best practice for SLL habitat, and not compromise habitat requirements for SLL identified in the Ecological Guidelines (ACT Government 2019a). | PSC (O) | Ongoing | 13, 17, 18, 19, 24, 38, 39 |
| | 2. Any changes of management practices following a review of the SBMP or the BOP must be implemented. | PCS (O) | Ongoing | 10, 13, 17, 18, 19, 24, 38, 39 |
| **Annual reporting** | 1. Fulfil all reporting commitments as identified in EPBC approval 2020/8768. | iCBR – from date of the approval until completion of the action.<br>PCS (O, M, PI) – from completion of action.<br>See reporting schedule in Section 7.3.3. | Annually by 30th August. | 6 |

**Table 6-3 Management actions – Threat management**

| Activity | Description | Implementation | Timeframe for Completion | Risk Reference |
|---|---|---|---|---|
| **Manage Pest Plants** | 1. Pest plant management will be planned, implemented and monitored adhering to the most current ACT Invasive Plants Operations Plan | PCS (O) | Until 30 June 2052 | 8, 9, 10, 31, 32, 33, 34, 35, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66 |
| | 2. Carry out regular field investigations to identify the location of any pest plant incursions within the offset site and broader management area. | PCS (M, O) | Until 30 June 2052 | 8, 9, 10, 31, 32, 33, 34, 35, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66 |
| | 3. Maintain accurate records for all pest plant operations and control programs. | PCS (O) | Until 30 June 2052 | 6, 8, 9, 10, 31, 32, 33, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66 |
| **Manage Pest Animals** | 1. Pest animal management will be planned, implemented and monitored in coordination with the adjacent Nadjung Mada Reserve adhering to the ACT Pest Animal Management Strategy and the most current PCS Operations plans. | PCS (O) | Until 30 June 2052 | 9, 30, 31, 37, 43, 45, 46 |
| | 2. Carry out regular field investigations to identify the location of any pest animal incursions within the offset site and broader management area. | PCS (M, O) | Until 30 June 2052 | 9, 30, 31, 37, 43, 45, 46, 54 |
| | 3. Maintain accurate records for all pest animal operations and control programs. | PCS (O) | Until 30 June 2052 | 6, 9, 30, 31, 37, 43, 45, 46 |
| **Manage appropriate herbage mass disturbance regime** | 1. Maintain biomass, within the offset site and broader management area, in accordance with SLL requirements[4], Ecological Guidelines (ACT Government 2019a) and ACT Bushfire Management Standards (ACT Government 2025). | PCS (O) | Until 30 June 2052 | 10, 16, 17, 18, 19, 20, 21, 22, 24, 32, 33, 34, 35, 36, 37, 38, 39 |

[4] Appendix 12.1.2 of the EOAMS provides up to date ecological benchmark conditions based on conservation advice for the species.

| Activity | Description | Implementation | Timeframe for Completion | Risk Reference |
|---|---|---|---|---|
| **Manage identified human land use impacts** | 1. PCS staff must follow the 'On track' vehicle policy. No vehicle will enter the Reserve after heavy rain events. Only essential vehicles will enter the Reserve. | PCS | Until 30 June 2052 | 7, 8, 9, 14 |
| | 2. Liaise with relevant asset owners to review maintenance requirements and implement mechanisms to reduce risk of third party damage. | PCS | Ongoing | 15 |

**Table 6-4 Management actions – Capital works (assets and infrastructure)**

| Activity | Description | Implementation | Timeframe for Completion | Risk Reference |
|---|---|---|---|---|
| **Trails and tracks** | 1. Annual operations planning to review management access, modifications and repairs to existing tracks where required. Priority is to protect areas of higher habitat quality. Potential impacts from future sewer line duplication and maintenance access will be considered. | PCS (Pr, O) | Ongoing | 7, 9, 14, 22, 25, 27 |
| **Gate and fence infrastructure** | 1. Operations planning to review management access, modifications and repairs to existing fencing and gates where required. Priority is to protect areas of higher vegetation quality. Potential impacts from Kenny sewer line duplication and maintenance access will be considered. | PCS (Pr, O) | As required | 7, 9, 14, 22, 25, 27, 28, 29, 31, 34, 35 |
| **Signage** | 1. Design, construct, and install signage to identify the reserve to the public. Signage associated with Nadjung Mada Nature Reserve should be installed at access gates along Old Well Station Road. | PCS (Pr, O) | Initial signage 2028.<br>Updated as required. | 7, 15, 25, 27, 28, 29, 30, 31 |

**Table 6-5 Management actions – Ecological**

| Activity | Description | Implementation | Timeframe for Completion | Risk Reference |
|---|---|---|---|---|
| **Maintain the quality, connectivity and extent of SLL habitat** | 1. Use slashing, ecological grazing, grazing management, fencing, and eco-burns to manage herbage mass, within the offset site and broader management area, as per the EOAMS (ACT Government 2021)[5]. Herbage mass management undertaken during the ACT fire season (October to March, with seasonal variation) will be undertaken in accordance with ACT Bushfire Management Standards (ACT Government 2023). Herbage mass management will be consistent with the Section 21 of the Ecological Guidelines for Fire, Fuel and Access management Operations (ACT Government 2019a, or their successor).<br>2. Maintain patch extent and connectivity during poor conditions through planting or seeding drought tolerant native tussock species. | PSC (O) | Until 30 June 2052 | 6, 7, 9, 10, 13, 17, 18, 19, 22, 23, 24, 33, 34, 35, 36, 37, 38, 39 |
| **Enhance ecological condition of SLL habitat** | 1. Restore the average grass height to 10-20 cm interspersed with tall and medium height tussock patches.<br>2. Maintain grass cover at least to baseline extent, with an aim to achieve >75% cover (native and exotic) through restoration of native tussock grasses. To maintain extent during poor conditions a diversity of drought tolerant native species will be selected.<br>3. Ensure tree and shrub cover remains at less than 10% within each 10 ha segment of the area.<br>4. Prohibit shrub and tree planting.<br>5. Prohibit fertiliser application. | PSC (O) | Until 30 June 2052 | 6, 7, 8, 16, 22, 23, 24, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41 |

[5] *Appendix 12.1.2 of the EOAMS provides up to date ecological benchmark conditions based on conservation advice for the species.*

**Table 6-6 Management actions – Monitoring, assessment and research**

| Activity | Description | Implementation | Timeframe for Completion | Risk Reference |
|---|---|---|---|---|
| **MNES Values** | 1. Monitor MNES values as detailed within the EOEMP Report 2018-19 (ACT Government 2020a). | PCS (M) | As specified in Table 3-1 | 4, 6, 11, 40, 42 |
| **Detailed Vegetation Mapping** | 1. Detailed vegetation mapping may be required to identify PCTs, inform threat monitoring and herbage mass management. | PCS (M) | 2017 (completed PCT mapping – Capital Ecology) | 6 , 8 , 10, 13, 16, 17, 18, 19 ,20, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67 |
| **Monitoring weed threats and biomass** | 1. Monitor weed threats and biomass, within the offset site and broader management area, in accordance the Herbage Mass Guidelines (ACT Government 2020b), M&R Plan Monitoring Schedule (ACT Government 2017) and as detailed in the EOEMP Report 2018-19 (ACT Government, 2020a). | PCS (M) | Until 30 June 2052 | 6, 8, 9, 10, 11, 13, 16, 17, 18, 19, 20, 21, 22, 24, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66 |
| **Vertebrate Pest Monitoring** | 1. Develop and implement a monitoring program to detect and assess the presence of vertebrate pest species within the reserve. The program should include appropriate survey methods, data recording protocols, and reporting mechanisms to inform ongoing management actions. | PCS (O) | As per PCS pest species programs | 6, 30, 37, 43, 45, 46 |
| **Corrective action monitoring** | 1. Corrective actions are to be informed by findings of the annual monitoring program. Where monitoring detects results that exceed trigger values, PCS will workshop appropriate corrective actions. Consideration should be given to natural variability before corrective actions are implemented. | PCS (M, PI, O) | Until 30 June 2052 | 6, 9, 11, 36, 37, 38, 39, 40, 42 |

# 7.0 PLANNING AND REPORTING PROTOCOLS

## 7.1 REVIEW

OMPs will be reviewed periodically for the life of the approval. A review will also be undertaken if directed by DCCEEW. Where management implementation is varied, the OMP is formally revised following the full OMP planning process and submitted to DCCEEW for approval by the Commonwealth Minister. If approved the revised plan must be implemented. OMPs are prepared in accordance with the EOAMS.

## 7.2 INDEPENDENT AUDITS

Independent audits will be conducted for compliance with the conditions of EPBC 2020/8768 including commitments made in this plan and the CEMP. Independent audits will be conducted every three years following commencement of the Action until the expiry date of the approval (30 June 2052).

The below conditions apply to the independent audit, which have been included verbatim from the EPBC approval:

**Independent audit** means an audit, conducted by an **independent auditor**, of compliance with and fulfilment of these conditions and the commitments made in plans, objectively evaluated against the audit criteria developed by the independent auditor, in accordance with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019.

**Independent auditor** means a person, or firm, who:

- does not have any individual, financial, employment or family affiliation or any conflicting interests with the Action, the approval holder or the approval holder's staff, representatives, or associated persons,
- has demonstrated experience in undertaking government-regulated environmental compliance audits, and
- holds relevant professional qualifications and accreditations.

30) The approval holder must ensure that an **independent audit** of compliance with the conditions is conducted for every **audit period**.

31) The approval holder must submit details of the proposed **independent auditor** and their qualifications to the **department** within 10 **business days** following the end of each **audit period**.

32) The approval holder must ensure the scope of each **independent audit** is sufficient to determine the compliance status for each condition of approval, and each commitment made in each **plan**.

33) The approval holder must ensure the criteria for each **independent audit** and the undertaking of each independent audit are consistent with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019.

34) The approval holder must submit an **audit report** to the **department** for written agreement from the **department** within 3 months following the end of each **audit period**, or as otherwise directed by the **Minister** in writing.

35) The approval holder must ensure each **audit report** is completed to the satisfaction of the **Minister** and is consistent with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019.

36) The approval holder must publish each **audit report** on the **website**, in a format that is easily accessible and downloadable, within 10 **business days** of the date of the **department** agrees to the **audit report** in writing.

37) The approval holder must notify the **department** within 5 **business days** of the date the **audit report** is published on the **website**. In this notification, the approval holder must provide the **department** with the web address for where the **audit report** is published on the **website**.

38) The approval holder must keep each audit report published on the website from the first date which that audit report must be published and until the expiry date of this approval.

## 7.3 REPORTING AND COMPLIANCE

As the approval holder, iCBR will be responsible for annual compliance reporting from the date of the approval decision until the completion of the action. Following the completion of the action, and until the end of the approval period, PCS will be responsible for the submission of compliance reports to DCCEEW.

Annual reporting requirements will include two reports: an EPBC approval annual compliance report and an OMP compliance report (which will be appended to the EPBC approval annual compliance report for submission to DCCEEW). These reports will be required within 20 business days of the Annual Compliance Report period (ACR Period), which is annually on 14 August. The reporting schedule is summarised in Table 7-1.

A summary of the requirements of the annual reports is given below. Any plans submitted to DCCEEW must be submitted electronically.

### 7.3.1 EPBC 2020/8768 compliance report

The annual compliance reports will provide detail of compliance conditions of EPBC 2020/8768 over the previous year including which plans under the approval were in effect during the period, how the plans were implemented, and if any incidents occurred. These reports will describe compliance with all conditions under EPBC 2020/8768, and compliance with the plans required under the approval, being the CEMP and this OMP. The reports will be prepared in accordance with the Australian Government Annual Compliance Report Guidelines.

From approval of this plan until completion of the action, compliance reports will be prepared by iCBR. Following the completion of the action, and until the end of the approval period, PCS on behalf of iCBR will be responsible for the submission of compliance reports to DCCEEW.

### 7.3.2 OMP compliance report

OMP compliance reports will be prepared annually and shall be appended to the annual compliance report. These reports will be prepared by a suitably qualified ecologist to detail compliance with the OMP. The OMP compliance reports will also report on the results of the assessment from the ecologist as to whether the offset outcomes in the OMP have been achieved, the presence of SLL within the offset site and the quality of the habitat. If the offset outcomes are not being achieved the report will also describe, to DCCEEW the likely reasons why this has not occurred.

The reports will be prepared in accordance with the Australian Government Annual Compliance Report Guidelines by PCS on behalf of the ACT Government and partner proponents. From the approval decision until the completion of the action, PCS will provide the OMP compliance reports to iCBR to append to the EPBC compliance report and submit to DCCEEW. Following completion of the action, PCS will prepare and submit the EPBC compliance report and OMP compliance report to DCCEEW.

### 7.3.3 Reporting Schedule

The reporting schedule under EPBC 2020/8768 is summarised in Table 7-1.

**Table 7-1 Reporting Schedule**

| Time Period | Frequency | iCBR Role | PCS Role | Independent Auditor(s) |
|---|---|---|---|---|
| **Commencement of action until completion of action** | Annually | Prepare compliance report detailing compliance with conditions regarding the impact site.<br>Submit compliance report to DCCEEW with the OMP compliance report appended.<br>Publish the compliance report to their website. | Prepare OMP compliance report and provide to iCBR. | Nil |
| **Completion of action until end of approval period** | Annually* | Nil^ | Prepare compliance report and OMP compliance report, and submit to DCCEEW. | Nil |
| **Commencement of action until end of approval period** | Every three (3) years | Submit Independent Audit report to DCCEEW<br>Publish Independent Audit on their website | Participate, and provide information to the Independent Auditor, as requested, to suitably inform the audit. | Prepare Independent Audit Report and provide to iCBR. |
| * Up until 10 years following the date of the approval decision this will be annual. It is proposed that reporting requirement will be reviewed after 10 years (as the ecological benefit of the offset may have been reached).<br>^ Sign off or endorsement of the OMP compliance report, if required. | | | | |

### 7.3.4 Reporting of Unanticipated or Unapproved Incidents

DCCEEW is to be notified of incidents that have, or have the potential to, adversely impact MNES (i.e. potential breaches to offset commitments) following an incident reporting procedure tailored to the complexity, cause, and uncertainty of the potential breach. The information flow and reporting process is coordinated by iCBR as the approval holder. For incidents occurring at or in relation to the offset site, PCS will need to provide information that will allow iCBR to report incidents to DCCEEW.

DCCEEW is to be notified electronically of incidents as soon as practicable and no later than two business days of iCBR becoming aware of the incident. The incident notification must include:

a. The condition or commitment in the plan which has been or may have not been complied with

e. A short description of the incident, and

f. The location (if applicable, including co-ordinates), date and time of the incident.

Further details of the incident will be provided within 12 business days of iCBR becoming aware of the incident including:

a. All corrective measures and investigations which the approval holder has already taken in respect of the incident,

g. The potential impacts of the incident,

h. The method and timing of any corrective measures that the approval holder proposes to undertake to address the incident, and

i. Any variation of these conditions or revision of a plan that will be required to prevent recurrence of the incident and/or to address its consequences.

### 7.3.5 Publication of Offset Documents

All plans and reports, including research reports, prepared in the context of delivering offset commitments are published on the PCS Environmental Offsets website and/or the ACT Government Offsets Register within 30 days of being finalised.

iCBR as the approval holder will also need to publish this OMP and the CEMP on its website within 15 business days of approval by the Minister, or within 15 business days of submission to DCCEEW if the plan does not require approval of the Minister.

iCBR will also need to publish the ACR (with the OMP compliance report appended) to its website within 20 business days of the annual compliance period.

Requirements for the publication of reports and plans under EPBC 2020/8768 are given in Table 7-2. All plans will be in a format that is easily accessible and downloadable, from the first date which that plan must be published and until the expiry date of this approval. This requirement applies to all current and superseded versions of plans.

**Table 7-2 Publication schedule**

| Document | Timing of publication | Notification to the Department of publication | Publication period |
|---|---|---|---|
| **Offset Management Plan** | Within 15 business days of approval by the Minister<br>OR<br>Within 15 business days of submission to the Department, if the plan does not require approval of the Minister. | Nil | Until the expiry date of EPBC2020/8768 (30 June 2052) |
| **Construction Environmental Management Plan** | Within 15 business days of approval by the Minister<br>OR<br>Within 15 business days of submission to the Department, if the plan does not require approval of the Minister. | Nil | |
| **Annual compliance report (with the OMP compliance report appended).** | Within 20 business days of the annual compliance period: | Within 5 business days of each date of publication to the website. | |
| **Independent Audit Report** | Within 10 business days of the date of the department agrees to the audit report in writing | | |

iCBR may need to exclude or redact sensitive ecological data from any version of a plan, compliance report or audit before that plan is published on the website or otherwise provided to a member of the public. If this is required, the unredacted data will need to be submitted to DCCEEW within 5 business days of its publication on the website, with explanation (in writing) of the exclusions and redactions that have been made in the version published on the website or otherwise provided to a member of the public.

### 7.3.6 Records Management

The ACT Government maintains accurate records substantiating any activities associated with or relevant to the offset commitments, including measures taken to implement OMPs. Any activities undertaken at offset sites by non-government organisations (e.g. Friends/Park Care groups) are recorded and provided to PCS staff to assist with monitoring and reporting.

As the approval holder, iCBR will be responsible for maintaining and completing accurate compliance records for this OMP from the date of the approval decision until the completion of the action. Following the completion of the action, and until the end of the approval period, PCS will be responsible for maintaining and completing accurate compliance records for this OMP.

If DCCEEW makes a request in writing, iCBR and/or PCS must provide electronic copies of compliance records within the timeframe specified in the request.

Any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval will be prepared in accordance with:

- Guidelines for biological survey and mapped data (Commonwealth of Australia 2018)*
- Guide to providing maps and boundary data for EPBC Act projects (Commonwealth of Australia 2021)*.

*Or as specified by the Minister in writing

All monitoring data (including sensitive ecological data), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) will be submitted electronically to DCCEEW within 20 business days following the end of each ACR period except where otherwise specified in a plan.

## 7.4 COMPLETION OF THE ACTION

Completion of the Action means the date on which all activities associated with the approved Action have permanently ceased and/or been completed. This will occur when the Package 1C Main Works are physically completed.

Within 20 business days after the completion of the Action, and, in any event, at least 20 business days before this approval expires, the approval holder must notify the department electronically of the date of completion of the Action and provide completion data. The approval holder must submit any spatial data that comprises completion data as a shapefile.

## 7.5 EXPIRY OF THE APPROVAL

The approval holder must notify the department electronically 60 business days prior to the expiry date of this approval that the approval is due to expire.

The expiry date for this approval is 30 June 2052 which is consistent with the EPBC approval with conditions provided by DCCEEW on 15 March 2022.

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# APPENDICES

## West Kenny OMP – Monaro Highway Project

# Appendix A – OFFSET STRATEGY

**Offset Strategy**

EPBC Approval 2020/8768; Upgrade of the Monaro Highway between David Warren Road (intersection with Monaro Highway) and Sheppard Street (intersection with Lanyon Drive), Hume, ACT.

**Monaro Highway Project**

9 January 2025

Prepared for:

Infrastructure Canberra on behalf of the ACT Government (Transport Canberra and City Services Directorate; ABN 37 307 569 373)

Prepared by:

Stantec Australia Pty Ltd

| Revision | Description | Author | | Quality Check | | Independent Review | |
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| **1** | Draft for client review | Annabelle McTaggart | 13/01/2023 | Mark Vergara | 13/01/2023 | | |
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| **7** | Update following PCS comments | Annabelle McTaggart | 01/08/2023 | Mark Vergara | 01/08/2023 | | |
| **8** | Update following increase in offset area | Dane Fogliada | 06/08/2025 | Josh Tracey | 22/08/2025 | | |
| **9** | Updates following PCS comments | Dane Fogliada | 16/10/2025 | Josh Tracey | 19/12/2025 | Kevin Roberts | 08/01/2026 |

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(signature)

**Josh Tracey**

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# Abbreviations

| Term | Definition |
|---|---|
| **ACT** | Australian Capital Territory |
| **ACTIA** | Australian Capital Territory Insurance Authority |
| **CED** | City and Environment Directorate |
| **CEMP** | Conservation Effectiveness Monitoring Program |
| **DAWE** | Department of Agriculture, Water and the Environment |
| **DCCEEW** | Department of Climate Change, Energy, the Environment and Water |
| **DSEWPC** | Department of Sustainability, Environment, Water, Population and Communities |
| **EOAMS** | Environmental Offsets Adaptive Management Strategy |
| **EOEMP** | Environmental Offsets Ecological Monitoring Program |
| **EPBC Act** | *Environment Protection and Biodiversity Conservation Act 1999* |
| **EPSDDIAT** | Environment, Planning, and Sustainable Development Directorate Impact Assessment Team |
| **ha** | Hectares |
| **iCBR** | Infrastructure Canberra |
| **M&R Plan** | Monitoring and Research Plan |

| Term | Definition |
|---|---|
| **MNES** | Matter of National Environmental Significance |
| **NC Act** | *Nature Conservation Act 2014* |
| **OMP** | Offset Management Plan |
| **PCS** | Parks and Conservation Service |
| **SBMP** | Strategic Bushfire Management Plan |
| **SLL** | Striped Legless Lizard |
| **TAMS** | Territory and Municipal Services Directorate |
| **TPV** | Territory Plan Variation |
| **TSSC** | Threatened Species Scientific Committee |
| **WoNS** | Weed of National Significance |



# Glossary

| Term | Definition |
|---|---|
| **Approval Holder** | Transport Canberra and City Services Directorate (now incorporated into Infrastructure Canberra). |
| **Controlled Action** | Upgrade of the Monaro Highway between David Warren Road (intersection with Monaro Highway) and Sheppard Street (intersection with Lanyon Drive), Hume, ACT. |
| **Direct Offset** | A 12.2 ha site located within the southern portion of registered rural block no. 739, Gungahlin. The site has been designated for the direct offset of Package 1C of the Monaro Highway Project for EPBC 2020/8768. |
| **Impact Site** | The 4.05 ha area of exotic grasslands, located between the southbound Monaro Highway Carriageway and the western end of Lanyon Drive, Hume, ACT, which will be directly impacted by Package 1C of the Monaro Highway Project. |
| **Monaro Highway Project** | A suite of road upgrades at, and near to, the intersection of Monaro Highway and Lanyon Drive, Hume, ACT. |
| **Nadjung Mada** | Nadjung Mada Nature Reserve, located in Kenny, ACT. |
| **Proposed Offset Site** | A 12.2 ha site located within the southern portion of registered rural block no. 739, Gungahlin. The site has been designated for the direct offset of Package 1C of the Monaro Highway Project for EPBC 2020/8768. |
| **West Kenny Offset** | A 12.2 ha site located within the southern portion of registered rural block no. 739, Gungahlin. The site has been designated for the direct offset of Package 1C of the Monaro Highway Project for EPBC 2020/8768. |

# 1.0 INTRODUCTION

Infrastructure Canberra, on behalf of ACT Government, is seeking to deliver a suite of road upgrades at, and near to, the intersection of Monaro Highway and Lanyon Drive, Hume, Australian Capital Territory (ACT) (the Monaro Highway Project; Figure 1). Package 1C of the Monaro Highway Project (Package 1C) includes 'The upgrade of the Monaro Highway between David Warren Road (intersection with Monaro Highway) and Sheppard Street (intersection with Lanyon Drive), Hume, ACT'.

Package 1C was referred under the Environment Protection and Biodiversity Conservation Act (EPBC Act) on 13 July 2020 and subsequently declared a controlled action. The trigger for the controlling provision was due to impacts to 3.2 ha of habitat for the Striped Legless Lizard (SLL; *Delma impar*), which is listed as 'vulnerable' under the EPBC Act. A known important population of SLL occurs in the Jerrabomberra East Grassland Nature Reserve, located to the east of the controlled action.

The controlled action was approved under the EPBC Act, subject to conditions, on 15 March 2022, with effect until 30 June 2052 (EPBC 2020/8768; (Appendix A)). As per the approval for EPBC 2020/8768, the approval holder must compensate for residual impacts to SLL through suitable offsets. This includes requirements for the approval holder to submit an Offset Management Plan (OMP) for the Minister's written approval. The action cannot commence until the OMP is approved by the Minister in writing and the offset is legally secured. The approval holder must implement the OMP as approved by the Minister.

Subsequent to the approval of EPBC 2020/8768 on the 15 March 2022, design changes resulted in a 0.81 ha increase in the area of SLL habitat to be directly impacted by Package 1C. This additional area occurs to the east of the initial 3.2 ha referred on 13 July 2020 and is contiguous with native grasslands known to be occupied by the Jerrabomberra *Delma impar* important population. As such, this offset strategy has been produced to determine offset requirements and suitability with respect to a direct impact to 4.05 ha of SLL habitat.

A request to vary the approval conditions EPBC 2020/8768 to allow for a total direct impact of 4.05 ha of SLL habitat was made to the Department of Climate Change, Energy, the Environment and Water (DCCEEW), on 17 November 2023. Following consultation with DCCEEW the variation to conditions for EPBC 2020/8768 was approved on 14 August 2025.

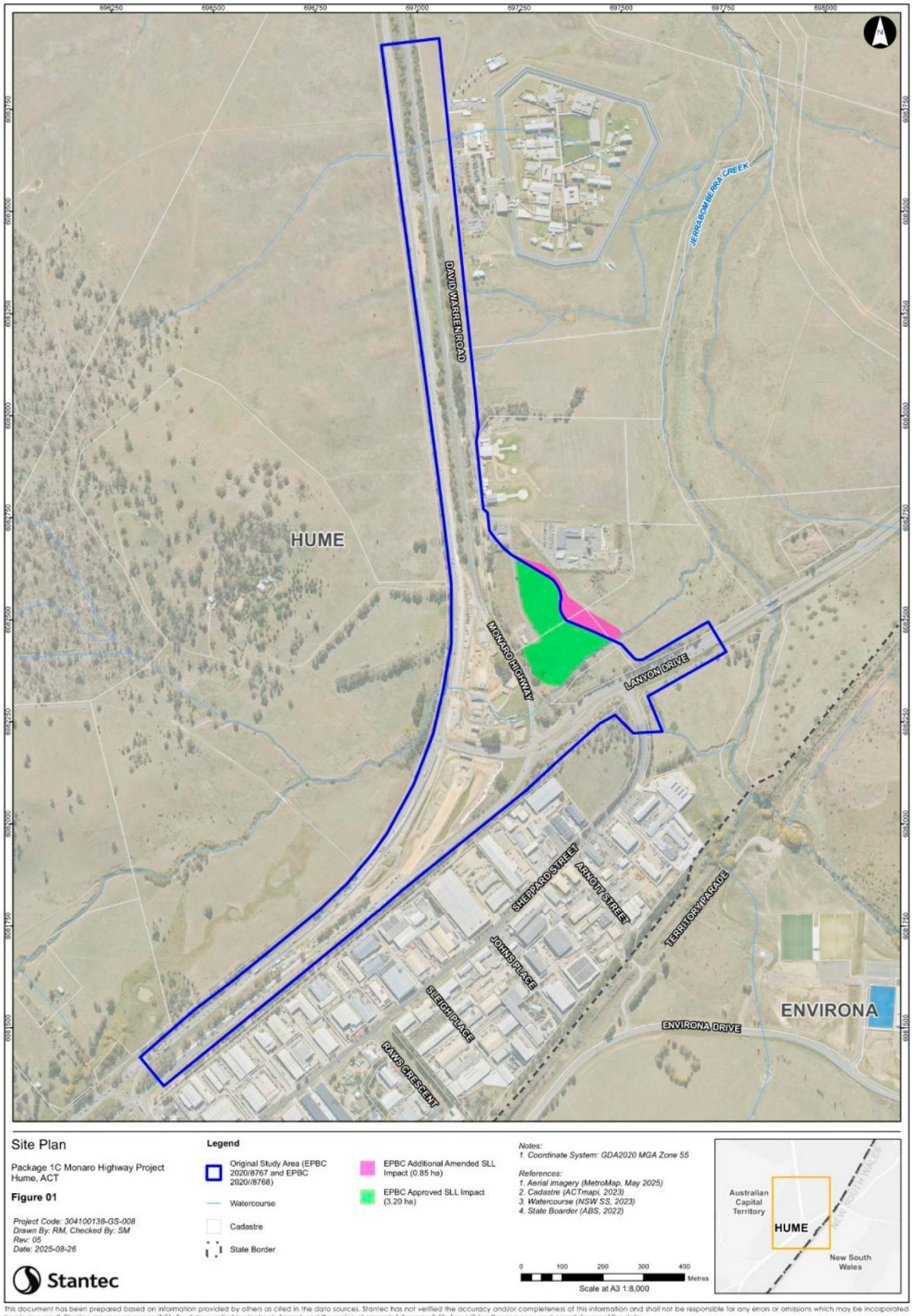
**EPBC 2020//8788 OFFSET STRATEGY**

INTRODUCTION

An offset site has been identified to compensate for the residual significant impact on SLL resulting from the controlled action. The proposed offset site (West Kenny Offset) is located within registered rural block no. 739, Gungahlin, ACT, approximately 18 km north of the impact site (Figure 2). The block is currently mapped under Future Urban Areas within the Territory Plan-Overlay Zone. The offset site consists of 12.2 ha of SLL habitat to provide a direct offset for the 4.05 ha of SLL habitat directly impacted by Package 1C (Appendix D). This offset strategy aims to refine the offset requirements of the Monaro Highway Project and determine the suitability of the direct offset portion of the West Kenny Offset site as a potential offset for the Monaro Highway Project, in accordance with Commonwealth and ACT Government Offset Policies. The offset proposes to maintain and enhance the quality and extent of SLL habitat within the offset site.

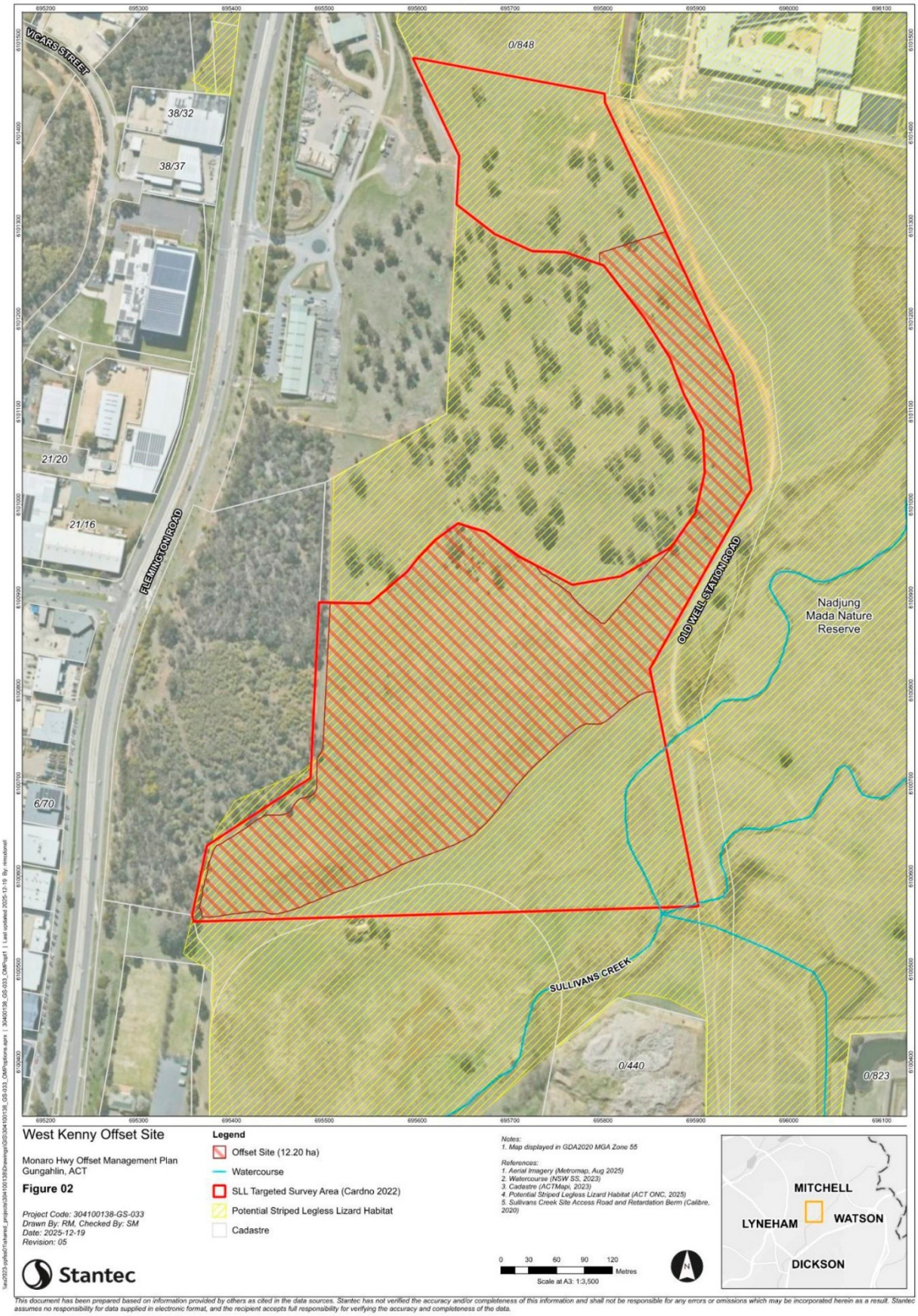
INTRODUCTION

**Figure 1-1 The Monaro Highway Project**




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**Figure 1-2 Proposed Offset Site**



## 1.2 PROJECT DESCRIPTION

The proposed action comprises a 2 km section of the Monaro Highway involving redesign of the alignment and intersections between David Warren Road (intersection with Monaro Highway) to Sheppard Street (intersection with Lanyon Drive) (Figure 1). The key features of the action include:

- Removal of access from Monaro Highway to Alexander Maconochie Centre and David Warren Road;
- Extension of David Warren Road to Lanyon Drive/Sheppard Street intersection to compensate for the removal of turning movements at the existing access to the Alexander Maconochie Centre;
- Amendment of the intersection of Lanyon Drive and Sheppard Street to a four-way intersection;
- An exit ramp from Monaro Highway southbound carriageway to Lanyon Drive;
- An extended entry ramp to Monaro Highway southbound carriageway from Lanyon Drive;
- Installation and relocation of utilities required to accommodate the new road arrangement; and
- Widening of Dog Trap Creek for flood mitigation purposes.

## 1.3 RELEVANT OFFSET POLICIES

### 1.3.1 EPBC Environmental Offsets Policy

This Offset Strategy has been prepared in consideration of the EPBC Act Environmental Offsets Policy (DSEWPC 2012a) and the Environmental Management Plan Guidelines (Commonwealth of Australia 2014). It has been prepared to address the requirements for conditions 5 and 6 of the approval for the Monaro Highway Project (EPBC 2020/8768, Appendix A) and guide the implementation and management of offset activities at West Kenny Offset. As PCS will become the custodian responsible for land management, this strategy has also been prepared in accordance with the EPBC Act Environmental Offsets Adaptive Management Strategy (EOAMS) (ACT Government 2021).

The EPBC Act Environmental Offsets Policy provides overarching principles to be applied in determining the suitability of offsets, including that suitable offsets must *"be of a size and scale proportionate to the residual impacts on the protected matter".* Additionally, suitable offsets must *"be built around direct offsets",* with a minimum of 90% of offset requirements for an action to be achieved through direct offsets. The suitability of a proposed offset is considered in determining the approval of a proposed action under the EPBC Act.

Offsets should remain in effect for the full duration of the impact and deliver an overall conservation gain that directly benefits the impacted protected matter (i.e. "*maintains or increases its viability or reduces any threats of damage, destruction or extinction").* This may be achieved by through positive management actions that avert future loss, degradation or damage of the protected matter.

Under the EPBC Act Environmental Offsets Policy, management objectives for an offset site should:

- Deliver an overall conservation outcome that improves the viability of the protected matter;

- Provide a direct offset that is in proportion to the level of statutory protection that applies to the protected matter;
- Be of a size and scale proportionate to the residual impacts on the protected matter;
- Effectively account for and manage the risks of the offset not being successful within the required management timeframe;
- Provide a conservation gain additional to what is already required by a duty of care or to any environmental planning laws at any level of government; and
- Be efficient, effective, timely, transparent, scientifically robust and reasonable with appropriate transparent governance arrangements in place for measuring, monitoring, auditing and enforcing the management of the offset site.

### 1.3.2 ACT Environmental Offsets Policy

The ACT Environmental Offsets Policy outlines the ACT Government's approach to the use of environmental offsets for Matters of National Environmental Significance (MNES) under the EPBC Act and ACT protected matters. The ACT Environmental Offsets Policy is consistent with the EPBC Act Environmental Offsets Policy (DSEWPC 2012a) for MNES. Where an offset has been established for an MNES under the EPBC Act, and the species is also an ACT protected matter, additional environmental offsets under the ACT Environmental Offsets Policy are not required. The Monaro Highway Project will not result in significant impacts on any ACT protected matters that are not covered by the EPBC Act Environmental Offsets Policy, and therefore the ACT Environmental Offsets Policy has not been detailed further in this Offset Strategy.

# 2.0 IMPACT SITE

## 2.1 SITE CONTEXT

The impact site consists of 4.05 ha of exotic grasslands located between the southbound Monaro Highway Carriageway and the western end of Lanyon Drive, Hume, ACT (Figure 3). Land within the impact site consists of urban registered and approved blocks mapped under Main Avenues and Approach Routes within the Territory Plan-Overlay Zone. The impact site has a relatively flat terrain and vegetation consists of exotic grasslands dominated by Phalaris *(Phalaris aquatica)* and other exotic grasses. Invasive species such as St John's Wort (*Hypericum perforatum*) and Great Mullein (*Verbascum thapsus*) were noted throughout the site. No rocky areas occur within the site and invertebrate burrows and bare patches of ground were noted to be mostly absent across the site at the time of assessment (September 2022), although a high density of thatch was present. The impact site is subject to grazing, evidenced by herbivore scats and burrows. Additionally, the south-eastern portion of the site, near Dog Trap Creek, is subject to flooding, as evidenced by flood swept vegetation noted during the site assessment.

The impact site has no connectivity to the north, west or south due to existing infrastructure and part of the site has previously been modified by the construction of the gas pressure reduction station (PRS Hume) and access roads. Dog Trap Creek also presents a barrier to the movement of fauna to the south-east of the Impact Area. Connectivity does however exist to the east of the impact site, with Jerrabomberra East Reserve.

The impact site is located at the south-western extent of the known occurrence of the Jerrabomberra *Delma impar* important population. One SLL has been recorded within the impact site and an individual SLL record also occurs 150 m east of the impact site. Additional records, associated with Jerrabomberra East Grasslands, occur to the north of the impact site, beyond the Emergency Services Agency Training Centre. One of four known Striped Legless Lizard populations occurs in the Jerrabomberra East Grassland Nature Reserve, and meets the definition of an important population as described in the EPBC Act - Referral guidelines for the vulnerable Striped Legless Lizard, *Delma impar* (DSEWPC 2011).

SLL habitat, mapped on the ACTmapi Significance Species, Vegetation Communities and Registered Trees database, occurs in the south-eastern portion of the impact site. Over 300 ha of interconnected and relatively contiguous SLL habitat is mapped to the immediate east of the impact site, within the Jerrabomberra Valley.

The outcomes of previous surveys undertaken within, and in close proximity to, the impact site are detailed in Section 2.1.1. Habitat quality for the impact site has been quantified in Section 4.3.

IMPACT SITE



**Plate 1:** Typical habitat present within the impact site.



**Plate 2:** Typical habitat present within the impact site.

IMPACT SITE

**Figure 2-1 Impact Site**




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## 2.1.1 Previous Assessments

### 2.1.1.1 Eastern Broadacre Striped Legless Lizard Survey (SMEC 2015)

SMEC undertook surveys for SLL across five locations throughout the Eastern Broadacre area of eastern Canberra. This included surveys at Hume North and Hume South, located nearby to the impact site. The Hume North site was classified as medium to low value habitat, with vegetation consisting of a mix of native and exotic pasture. Nine individual SLL (3 recaptures) were recorded at this site. One individual was captured within grassland dominated by Phalaris (*Phalaris aquatica)* and Oats (*Avena* sp.), about 150 m east of the impact site. The Hume South site was classified as having no SLL habitat value and consisted of exotic pasture and degraded native pasture. No SLL were captured in this area. Grassland to the south of Dog Trap Creek was classified as 'recoverable', as, although it did not provide suitable habitat at the time of assessment, it represented potential habitat with appropriate rehabilitation.

### 2.1.1.2 Monaro-Hume Upgrade Lanyon Drive Intersection (Jacobs 2020a)

Jacobs undertook a biodiversity assessment for Phase 1 of the Monaro Highway Upgrade project. No targeted SLL surveys were undertaken as part of this assessment, however initial habitat assessment concluded that habitat value across the site was considered to be very low for the species as the grassland did not provide refuge features such as cracking soil, grass tussocks and rocky outcrops. It was noted that low quality habitat within the site may be used by the species for foraging and shelter. Vegetation within the site consisted of grassland dominated by exotic grass species such as Phalaris (*Phalaris aquatica)* and Oats (*Avena* sp.), however these were rarely tussock forming and bare ground was common. It was concluded that the project would directly impact 5.1 ha of exotic grassland contiguous with native grasslands known to be occupied by the Jerrabomberra *Delma impar* important population and, due to barriers to connectivity, 3.2 ha of this habitat may provide low quality SLL habitat.

### 2.1.1.3 Striped Legless Lizard Survey Undertaken at Jerrabomberra for the Proposed (Stage 1) Upgrades to the Monaro Highway (PATH Co 2021)

PATH Co. undertook targeted surveys for SLL at the impact site to provide further information to support EPBC 2020/8768. A single adult SLL and a single shed skin (slough) were recorded within the impact site. Based on this, it was assumed that the site provides some habitat value for the species. Moderate habitat value was provided by the site due to high cover of tussock-forming Phalaris *(Phalaris aquatica)*, however the overall habitat values of the site were considered to be limited due to the abundance of other non-native groundcover such as African Lovegrass (*Eragrostis curvula*), Haresfoot Clover (*Trifolium arvense*) and Oats (*Avena* sp.). It was noted that the abundance of Phalaris varied throughout the survey period, being more dominant early in the season and less so late in the season as it died off and other species became more dominant.

### 2.1.1.4 Second Addendum Biodiversity Impact Assessment, Monaro Highway Stage 1C (Stantec 2023)

As a result of design changes, the works area for Package 1C was extended. Stantec undertook a biodiversity assessment of three additional areas outside of the original Package 1C Study Area. These areas were comprised of predominately exotic grassland, including an area contiguous with the Jerrabomberra East Grassland Nature Reserve, where important populations of the SLL are known to occur. Based on existing barriers to movement (Dog Trap Creek and access road), 0.81 ha of potential SLL habitat was identified within Area 1, occurring between the initial 3.2 ha impact area (Jacobs 2020a) and Jerrabomberra East Grassland Nature Reserve. This area was considered to be low quality habitat, similar in condition to the 3.2 ha impact area (Jacobs 2020a). As a result of the potential foraging habitat provided within the Study Area and the connectivity of the area with the important population within Jerrabomberra East Grassland Nature Reserve, the additional impact was considered to constitute a significant impact, as a precautionary approach, and require referral to DCCEEW.

### 2.1.1.5 Third-Party Verification of Previous Ecological Study to Support Section 211 EIS Exemption Application for the Monaro Highway Package 1C Upgrades (PATH Co, 2025)

Path Co were engaged by Stantec to undertake a review of previous information included within a Section 211 EIS Exemption (s211) application for the Monaro Highway Upgrades Package 1C Main Works project. Specifically, the review was undertaken to confirm the validity (currency) of the information contained in two of the biodiversity assessments included in the s211 EIS Exemption application that were more than 18 months old and included the EPBC 2020/8768 Preliminary Documentation, prepared by Jacobs Group, October 2021 and the Biodiversity Assessment Report, prepared by Jacobs Group, September 2020

The third party verification included a desktop assessment and a brief site survey on 7 March 2025 to verify if the biodiversity values onsite were still consistent with the previous studies. The assessment determined that there has been no notable change in the vegetation characteristics within the site. Some changes to the groundcover vegetation has occurred, mainly in relation to grassland sward height and cover, while the overall species composition of the grassland is relatively similar. Importantly, the site was classified as exotic grassland and no threatened plant species have been recorded at any point in time in this area, and there is considered to be very little potential for any threatened flora to occur in this area. The key terrestrial fauna species of consideration is the listed threatened Striped Legless Lizard which has been previously recorded in the area in late 2020, however the overall habitat values of the site for this species are considered to be low due to the very high exotic component of the grassland.

The assessment concluded that there had been no material change in ecological value on the site assessed from previous studies.

## 2.2 AVOIDANCE AND MITIGATION MEASURES

Package 1C will impact SLL habitat through the extension of David Warren Road to the Lanyon Drive intersection, which has been designed to align with the existing intersection at Lanyon Drive with Sheppard Street. This proposed new intersection allows for a four-way intersection which accommodates the required traffic movements with a minimal amount of footprint and infrastructure compared to other possible options.

The design has been optimised to limit impacts on the SLL habitat by limiting infrastructure within the SLL habitat. The extension of David Warren Road cannot be moved further to the west as this will impact on the gas regulating station adjacent to the current southbound Monaro Highway.

A number of avoidance and mitigation measures were proposed in the EPBC referral submitted to the Department of Climate Change, Energy, the Environment and Water (DCCEEW; formerly the Department of Agriculture, Water and Environment (DAWE)) on 13 July 2020 to address potential impacts to the SLL, these are outlined in Section 4 of the Preliminary Documentation (Jacobs 2020b).

## 2.3 RESIDUAL IMPACTS

Subsequent to the consideration of avoidance and mitigation measures, Stage 1C of the Monaro Highway Project is calculated as having a residual impact caused by the direct loss of 4.05 ha of foraging habitat for SLL (Jacobs 2020a; Stantec 2023).

## 2.4 OFFSET REQUIREMENTS

The removal of 3.2 ha of SLL habitat as a result of Package 1C was considered significant under the EPBC Act (EPBC 2020/8768), and, as such, the approval holder must identify suitable environmental offsets to compensate for impacts on SLL, provide detailed baseline information and commit to achievable ecological benefits (Condition 6b). Subsequent to the approval of EPBC 2020/8768 on the 15 March 2022, design changes have resulted in an increase in the area of SLL habitat to be directly impacted by Package 1C. This additional area occurs to the east of the initial 3.2 ha referred on 13 July 2020 and is contiguous with native grasslands known to be occupied by the Jerrabomberra *Delma impar* important population. As such, this offset strategy has been produced to determine offset requirements and suitability with respect to a direct impact to 4.05 ha of SLL habitat.

A request to vary the approval conditions EPBC 2020/8768 to allow for a total direct impact of 4.05 ha of SLL habitat was made to the Department of Climate Change, Energy, the Environment and Water (DCCEEW), on 17 November 2023. Following consultation with DCCEEW the variation to conditions for EPBC 2020/8768 was approved on 15 August 2025.

The Monaro Highway Project will result in the direct loss of 4.05 ha of SLL habitat. Suitable offsets must *"be built around direct offsets",* with a minimum of 90% of offset requirements for an action to be achieved through direct offsets (DSEWPC 2012a).



Additionally, 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”. As such, the required area to be offset is dependent on the habitat quality of both the impact site and proposed offset site. This forms the overarching test of the EPBC Act Environmental Offsets Policy (DSEWPC 2012a) and Offsets Assessment Guide (DSEWPC 2012b), which have been applied to determine the suitability of the proposed offset (Section 4.0).

Offsets should *“compensate for an impact for the full duration of the impact”* (DSEWPC 2012a). As the residual impact will result in the permanent removal of 4.05 ha of SLL habitat, the offset must maintain and enhance conservation gain in perpetuity. The offset proposes to maintain conservation gain through the maintenance of the quality and extent of SLL habitat within the offset site.

# 3.0 PROPOSED OFFSET SITE

## 3.1 SITE CONTEXT

The proposed offset site is comprised of 12.2 ha of unreserved land located within registered rural block no. 739, Gungahlin, ACT (Figure 2). This offset site provides a direct offset for the 4.05 ha of SLL habitat directly impacted by Package 1C of the Monaro Highway Project (Appendix D). Block no. 739 consists of approximately 33 ha of land mapped under Future Urban Areas within the Territory Plan-Overlay Zone. The land has an undulating relief, with a small hill positioned on the central portion. The proposed offset site is located in the southern portion of block no. 739 and is situated on the south-east of the small hill position on the central portion of the block, with a gradual south-east slope. The offset site sits within two paddocks and is intersected by an existing fence line. The site has previously been subject to grazing and vegetation consists of exotic grasslands dominated by Phalaris (*Phalaris aquatica*), and other exotic pasture species. Invasive species, such as Serrated Tussock (*Nassella trichotoma*) and St John's Wort (Hy*pericum perforatum*), are scattered throughout the site. One rocky outcrop and scattered stones are present within the proposed offset site. Invertebrate burrows and bare patches of ground were noted to be mostly absent across the site at the time of habitat quality assessment (September 2022).

The proposed offset site is located immediately to the west of Nadjung Mada Nature Reserve (Nadjung Mada Offset) in Kenny, ACT. Old Well Station Road presents a potential barrier to movement between the offset site and the reserve, however, it is low-trafficked (secured by locked vehicle gates and only used occasionally by Parks and Conservation Service (PCS) and contractor vehicles), unpaved and approximately 3 m in width. Nadjung Mada Offset contains approximately 112 ha of SLL habitat. It is mapped as SLL habitat on the ACTmapi Significant Species, Vegetation Communities and Registered Trees database and previous records of SLL occur within the site and adjacent lands. Nadjung Mada Offset has previously been mapped as moderate to high quality habitat for SLL (Biosis 2012, cited by ACT Government 2015). The proposed offset site would assist in improving the outcomes of Nadjung Mada Offset, facilitating reduced edge effects and the potential for the expansion of the SLL population.

The proposed offset site has no connectivity to the west or south due to existing infrastructure, access roads and Sullivans Creek. Approximately 13 ha of similar habitat occurs to the north of the offset site, within the northern portion of registered rural block no. 739, Gungahlin, ACT. This land is mapped as SLL habitat on the ACTmapi Significant Species, Vegetation Communities and Registered Trees database and has previously been mapped as predominately moderate to high quality habitat for SLL (Biosis 2012, cited by ACT Government 2015). Historical records of SLL occur within this land. Habitat quality for the proposed offset site has been quantified in Section 4.4.



**Plate 3:** Typical habitat present within the offset site



**Plate 4:** Typical habitat present within the offset site



**Plate 5:** Typical habitat present within the offset site

### 3.1.1 Previous Assessments

#### 3.1.1.1 Kenny and Throsby Striped Legless Lizard *(Delma impar)* survey report (Biosis 2012)

Biosis undertook targeted surveys across Kenny in Spring 2011 (Biosis 2012, cited by ACT Government 2015). During the survey period, 150 captures were made of 127 individual SLL. Thirty-six of these individuals were captured within registered rural block no. 739, including 10 within the proposed offset site. Fifty-one individuals were captured within the 160 ha proposed Kenny Reserve area (now Nadjung Mada). Additionally, areas of low to marginal habitat and moderate to high habitat were mapped based on the occurrence of SLL, grass structure and the degree of shading. Registered rural block no. 739 was mapped as predominately moderate to high quality habitat, with some low to marginal quality habitat (Biosis 2012, cited by ACT Government 2015). The offset site falls entirely within the area mapped as moderate to high quality habitat.

#### 3.1.1.2 Striped Legless Lizard Targeted Survey Report – Monaro Highway Project (Cardno, now Stantec 2022)

Cardno, now Stantec was engaged by Major Projects Canberra to undertake targeted surveys for SLL as part of the preliminary investigations into suitable offset sites for the Monaro Highway Project (Cardno, now Stantec 2022; Appendix B). Surveys were conducted within registered rural block no. 739 over a 10-week period, from March 2022 to May 2022. A total of six captures were made of a minimum of two individual lizards. All SLL captured were located in the southwestern portion of the site. General habitat observations across the site indicated a high cover of Phalaris/Canary Grass (*Phalaris* sp.), a tussock-forming exotic species that provides potential habitat for SLL.

# 4.0 OFFSET ANALYSIS

The EPBC Act Offsets Assessment Guide (DSEWPC 2012b) impact calculator provides the total quantum of impact on a protected matter, based on habitat quality, and identifies the minimum requirements to compensate for residual impacts on the protected matter. The Offsets Assessment Guide was used to calculate a total quantum impact of 2.03 of SLL habitat, which is the impact area of 4.05 hectares scaled by the habitat quality of 5 out of 10.

The EPBC Act Environmental Offsets Policy (DSEWPC 2012a) provides overarching principles to be applied in determining the suitability of offsets, including that suitable offsets must *"be of a size and scale proportionate to the residual impacts on the protected matter".* Additionally, suitable offsets must *"be built around direct offsets",* with a minimum of 90% of offset requirements for an action to be achieved through direct offsets.

As per the EPBC Act Environmental Offsets Policy (DSEWPC 2012a), 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". This forms the overarching test of the EPBC Act Environmental Offsets Policy (DSEWPC 2012a) and Offsets Assessment Guide (DSEWPC 2012b), which have been applied to determine the suitability of the proposed offset. Offsets should "compensate for an impact for the full duration of the impact" (DSEWPC 2012a). As the residual impact will result in the permanent removal of 4.05 ha of SLL habitat, the offset must maintain conservation gain in perpetuity.

The impact and offset site have been assessed using the following tools:

- EPBC Act Environmental Offsets Policy (DSEWPC 2012a);
- The Offsets Assessment Guide (DSEWPC 2012b);
- How to use the Offsets Assessment Guide (DSEWPC 2012b); and
- EPBC Acts referral guidelines for the SLL (DSEWPC 2011).

A SLL Habitat Quality Assessment scoring system was developed for the application of the Offsets Assessment Guide and is outlined in Section 4.2. The EPBC Act Offsets Assessment Guide (DSEWPC 2012b) impact calculator provides the total quantum of impact on a protected matter, based on habitat quality, and identifies the minimum requirements to compensate for residual impacts on the protected matter.

## 4.1 OFFSET STRATEGY ELEMENTS

The proposed strategy for the use of the site as an offset would include the following elements:

- Secure the site as a direct offset and ensure protection in perpetuity through zoning;

- Manage the site to maintain and improve habitat for SLL through management measures, including weed and pest control and biomass management. This would include threat management of the area surrounding the offset; and
- Invest in establishment and maintenance of site infrastructure (i.e. fencing, access tracks).

The performance objectives for the OMP for West Kenny include the:

- Maintenance of herbage mass and vegetation height within recommended parameters;
- Maintenance of the extent and connectivity of SLL habitat; and
- Enhance ecological condition of SLL habitat

As per the Environmental Offsets Adaptive Management Strategy (EOAMS) (ACT Government 2021), these performance objectives are used to assess the achievement of an offset site in providing a measurable conservation gain for Matters of National Environmental Significance (MNES).

The OMP and OMS have been developed in consultation with the ACT Government's CED, including the Offset Team who will manage the site. Offset sites managed by EPSDD form part of the ACT Reserve System, and in addition to specific offset commitments, also have conservation objectives under the Canberra Nature Park Reserve Management Plan (CNP RMP) and CEMP, including:

- Appropriately implementing ACT Government reserve management programs, (e.g., weed, pest, and fire management); and
- Gaining knowledge of ecosystem functions and interactions and the influence of management actions on these processes.

These elements are further detailed in Section 4.0 and have been taken into consideration when assessing the likely future habitat quality of the proposed offset site.

## 4.2 HABITAT QUALITY ASSESSMENT METHODOLOGY

A habitat quality assessment scoring system, specific to the ecological requirements of SLL was developed to provide an objective method to compare habitat quality between the impact site and proposed offset site. Habitat quality scores are a necessary component of the Offsets Assessment Guide (DSEWPC 2012b), which provides a framework to assess and demonstrate offset suitability and conservation gain, as per the requirements of the EPBC Act Environmental Offsets Policy (DSEWPC 2012a). The scoring system aims to measure how well a particular site supports SLL and contributes to ongoing viability of the species. The results of the habitat quality assessment for the impact site and proposed offset site are presented in Section 4.3 and Section 4.4 respectively.

### 4.2.1 Key Ecological Attributes

The EPBC Act Environmental Offsets Policy Offsets Assessment Guide (DSEWPC 2012a) provides key considerations in determining the quality of threatened species habitat. Relevant key ecological attributes relating to SLL have been summarised in Table 4-1.

**Table 4-1 Key Ecological Attributes for SLL (TSSC 2016; DCCEEW 2022; EPSDD 2022)**

| Attribute | Ecological requirements of SLL |
|---|---|
| **Habitat requirements and variability** | • Grassland specialist, found only in areas of native grassland and near grassy woodland and exotic pasture;<br>• The presence of a relatively dense and continuous structure, rather than the floristic composition of the grasslands, may be important in influencing the persistence of *D. impar*;<br>• Grassland with a mixture of tall and medium height tussock patches linked by areas containing shorter grass and forbs, is likely to provide a greater range of sites for shelter and thermoregulation, and a wider range and/or density of prey;<br>• Critical habitat includes sites that provides one or more of:<br>– Breeding habitat – including tussocks with high biomass, and surface rocks and/or burrows;<br>– Foraging habitat – i.e., the site is floristically diverse providing habitat for an abundance of foraging resources;<br>– Refuge from disturbance – including tussocks with high biomass, and surface rocks and/ or burrows;<br>– Long term protection – e.g., the site is covenanted for management; and<br>– Connectivity – the site forms habitat that is connected to breeding habitat or protected habitat |
| **Lifecycle and population dynamics** | • Lifespan estimated to be at least 10 years;<br>• Reproductive ages of 2-3 years for males and 3-4 years for females;<br>• Each female is capable of breeding annually, laying two eggs each year; and<br>• Eggs are laid in December/January and hatch in January/February. |
| **Movement and distribution patterns** | • Limited information is available on seasonal behaviour, movements and microhabitats of the species;<br>• Individuals may be relatively wide-ranging, moving at least 20 m in one day and up to 50 m over several weeks;<br>• The home range of the species is estimated to be <10 $m^2$;<br>• Movements may increase during November and December, coinciding with breeding activity; and<br>• Densities vary across the species' range, with estimates ranging between 10-40 individuals per hectare. |
| **Threatening processes** | • Habitat loss and fragmentation through clearing of native grasslands;<br>• Habitat modification and degradation (e.g., weed invasion, overgrazing, ploughing);<br>• Predation by domestic, wild and native animals; and<br>• Ecological disturbances to habitat (e.g., unplanned fire, drought, climate change). |

### 4.2.2 Criteria

The attributes used to determine the score for the estimated quality of SLL habitat are based on the three components defined in the EPBC Offsets Assessment Guide: site condition, site context, and species stocking rates (DSEWPC 2012b; Table 4-2). As per the Impact Calculator (DSEWPC 2012b), the maximum possible habitat quality score is 10 points. It should be noted that Table 4-2 provides a general overview of



potential considerations and the weighting given to each attribute, within the final habitat quality score, is dependent on the ecological requirements of the impacted species. Each indicator has been weighted, based on importance, to give a rescaled score on a 10-point scale.

The following sections provide a review of available information on SLL, relevant to each attribute. Each attribute has been broken down into sub scores based on the key ecological attributes of SLL (Table 4-1) and critical habitat for the species, as per the Conservation Advice (TSSC 2016) and available literature. Indicators represent factors important to the long-term viability of the species and relate to management (i.e., can be improved through offset and management actions). For each indicator, the best (highest score) and worst (lowest score) case scenarios have been assigned based on available benchmarks, literature and general ecological concepts. The following sub-sections provide a review of available information on SLL, relevant to each attribute.

**Table 4-2 Key Considerations in Scoring Habitat Quality (DSEWPC 2012b)**

| Attribute | Definition | Considerations |
|---|---|---|
| **Site Condition** | The condition of a site in relation to the ecological requirements of a threatened species. This includes considerations such as vegetation condition and structure, the diversity of habitat species present, and the number of relevant habitat features. | • Structure and condition of vegetation on site;<br>• Diversity of habitat species (including non-native species); and<br>• Relevant habitat features. |
| **Context** | The relative importance of a site in terms of its position in the landscape, considering the connectivity needs of a threatened species. This includes considerations such as movement patterns of the species, the proximity of the site in relation to other areas of suitable habitat, and the role of the site in relation to the overall population or extent of a species. | • Habitat connectivity;<br>• Importance of the site to the overall population; and<br>• Threats occurring on/near site (noting that the quality score that is input into the impact calculator should be the quality at the time of assessment). |
| **Stocking Rate** | The usage and/or density of a species at a particular site. The principle acknowledges that a particular site may have a high value for a particular threatened species, despite appearing to have poor condition and/or context. It includes considerations such as survey data for a site in regard to a particular species population. It also includes consideration of the role of the site population in regard to the overall species population viability. | • Presence of the species on site (i.e., confirmed/modelled);<br>• Density of the species known to use the site; and<br>• The role of the site in regard to the overall species population. |

#### 4.2.2.1 Site Condition

The following indicators, relating to site condition have been identified as important habitat requirements for SLL. A higher weighting has been given to site condition based on the key ecological attributes of SLL. The availability of suitable grassland habitat is critical to the survival of the species (Osborne 2013).

##### Grassland Structure and Composition

The SLL is a grassland specialist, occupying areas of native grassland, grassy woodland and exotic pasture (TSSC 2016). Although the primary habitat for the species is encompassed by native temperate grassland, the species has been recorded in exotic grasslands (Dorrough and Ash 1999; O'Shea 2013, cited by DCCEEW 2022). The species has been more frequently recorded in undisturbed native temperate grasslands, however this may be a result of disturbance history rather than a preference for native grasses as the species can persist in exotic grasslands.

The current understanding of the structural requirements of the species is limited, however there is evidence to suggest that the structure of a grassland may be more important than floristic composition in determining habitat suitability (Coulson 1995; Dorrough and Ash 1999). It is unclear if exotic grasslands are capable of sustaining long-term populations of SLL, however in the ACT, breeding populations have been detected in exotic grasslands isolated from other areas of grassland for over eight years (Robertson and Smith 2010).

The SLL is known to favour areas with a mix of short and taller grass tussocks and the presence of a dense and continuous structure of moderate to tall grasses is considered more important than floristic composition (Dorrough and Ash 1999; O'Shea 2005; Thompson 2006; O'Shea 2013, cited by DCCEEW 2022). Hadden (1998), cited by O'Shea 2005, concluded that the species could occur in dense grassland or widely spaced tussocks of open grasslands, provided that tussock species were present. Howland et al. 2016 noted a higher probability of encountering the species in grasslands with a high structural complexity. Such grasslands provide microhabitats for foraging, thermoregulation and refuge. Tall dense grasslands with low complexity are likely to be less conducive to the species. Although such habitats may provide additional cover, they may limit movement and reduce light penetration, limiting available basking habitat (Howland et al. 2016). The occurrence of the species is also negatively related to the density of grazers, as high grazing intensity reduces the structural complexity of grasslands (Dorrough and Ash 1999; Howland et al. 2016; Scroggie et al. 2019).

It should be noted that although surface rocks can provide important habitat for breeding and refuge (TSSC 2016), little to no rocky habitat occurs in the ACT (O'Shea 2005; DSEWPC 2011). Dorrough (1995), as cited by TSSC 2016, also noted that the population in the ACT does not appear to be limited by burrow abundance. Populations in the ACT are assumed to rely on grass tussocks for refuge (Coulson 1995, cited by DCCEEW 2022). As such, the presence of habitat features, such as rocks and burrows, has not been considered in habitat quality scoring.

Trigger values and targets for the West Kenny OMP are identified in the EOAMS (ACT Government 2021). Ecological condition metrics for the SLL within the EOAMS relate to the Striped Legless Lizard Action Plan (ACT Government 2017a). Given the imperfect knowledge of long-term habitat requirements of SLL, the action plan concludes that management should aim to maintain a diverse (i.e. patchy) sward with intermediate biomass levels.

This indicator has been weighted higher in the overall habitat quality score as it represents a habitat constraint for the species. As above, grassland structure is important in determining the presence of the species. An inappropriate grassland structure would not provide adequate resources and microhabitat for foraging, thermoregulation and refuge.

Table 4-3 presents a rating system for habitat structure and composition, based on the above information.

**Table 4-3 Rating System for Habitat Structure and Composition**

| Score | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **Description** | The site is absent of grass tussocks. | The site is heavily grazed with low complexity and/ or consists of a homogenous structure, predominantly composed of shorter forbs, with few and/or widely spaced tussocks. | The site contains medium-tall tussock cover but is not linked by areas containing shorter grass and forbs (i.e., grasslands are overgrown and senescent with no structural diversity, there is no distinction between tussock and inter-tussock spaces). | The site contains a patchy, heterogenous structure, however biomass levels are high. | The site contains a mixture of medium-tall tussock patches linked by areas containing shorter grass and forbs. Biomass levels are intermediate. The floristic composition of the site is dominated by exotic grassland species. | The site contains a mixture of medium-tall tussock patches linked by areas containing shorter grass and forbs. Biomass levels are intermediate. The floristic composition of the site is dominated by native grassland species. |

| Score | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **Justification** | Tussocks are a critical habitat feature in the presence of the species, providing microhabitats for foraging, thermoregulation and refuge. | Although the species has potential to occur in such habitat, the long-term persistence of the species is unlikely. A lower density of SLL would be supported by such habitat. | Although such habitats provide resources for the species, the homogenous structure is likely to limit movement and available basking habitat. | Although such habitats would provide suitable resources for the species, the habitat has high biomass and is trending towards lower quality habitat (i.e. there is evidence that the grazing regime not conducive to the structural requirements of the species). | Although structure is considered as more important than floristic composition, evidence on the long-term persistence of the species in exotic grasslands is limited. | Although structure is considered as more important than floristic composition, evidence on the long-term persistence of the species in exotic grasslands is limited. |

## Grass Sward Height

High capture rates of SLL have been noted at sites with a tussock height between 20-50 cm (Rauhala et al. 1995; Rauhala 1996, 1997, 1999, cited by ACT Government 1997). ACT Government Habitat Management Improvement Guidelines (ACT Government 2015) note that grassland height should be maintained between 20-80 cm. The Environmental Offsets Adaptive Management Strategy (EOAMS) (ACT Government 2021), which identifies the targets relevant to West Kenny provides a benchmark condition for average grass height of 10-20 cm for SLL based on current knowledge of the habitat requirements of the species. Whilst the species has been recorded in areas with a high grass sward (biomass), intermediate levels of grass structure are preferred (Howland et al. 2014, 2016).

This indicator has been weighted higher in the overall habitat quality score as it represents a habitat constraint for the species. As above, grass sward height is important in determining the presence and persistence of the species. High levels of biomass are representative of grasslands that are overgrown and senescent.

**Table 4-4 Rating System for Grass Sward Height**

| Score | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **Description** | Over 75% variance from benchmark | Within 75% of benchmark | Within 50% of benchmark. | Within 25% of benchmark. | Within 10% of benchmark. | Average grass height between 10-20cm |

| Score | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **Justification** | | | | | | EOAMs Benchmark for SLL (ACT Government 2021). |

## Tussock Cover

SLL records have been captured at sites ranging from a foliage cover of 35-80% (Rauhala et al. 1995; Rauhala 1996, 1997, 1999, cited by ACT Government 2017a). Other studies note SLL records at a cover of 20-50% or greater than 50% (DCCEEW 2022). The ACT Government Habitat Management Improvement Guidelines (ACT Government 2015) note that tussock cover should be maintained to at least 75% of the understorey. This is the basis for the EOAMS benchmark of >75% tussock cover (ACT Government 2021). The species prefers intermediate to high levels of grass cover, which provide refuge (Howland et al. 2014, 2016).

This indicator has been weighted higher in the overall habitat quality score as it represents a habitat constraint for the species. As above, cover is important in providing appropriate refuge for the species.

**Table 4-5 Rating System for Tussock Cover**

| Score | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **Description** | <10% cover | 10-20% cover | 20-35% cover | 35-50% cover | >50% cover | >75% cover |
| **Justification** | Well below range of previously recorded levels of cover. | Below range of previously recorded levels of cover. | Below benchmark but within range of previously recorded levels of cover. | Below benchmark but within range of previously recorded levels of cover. | Approaching benchmark. | EOAMs Benchmark for SLL (ACT Government 2021). Consistent with intermediate to high levels of cover preferred by species. |

## Bare Ground Cover

Bare ground represents a potential dispersal barrier to the species and habitat utilised by SLL typically contains <10% bare ground (O'Shea 2005; DCCEEW 2022). Whilst this factor may influence habitat quality for the species, it would be considered irrelevant should habitat constraints (as above) be absent. As such, a lower weighting has been assigned to this factor.

**Table 4-6 Rating System for Bare Ground Cover**

| Score | 0 | 1 |
|---|---|---|
| Description | >10% bare ground cover | <10% bare ground cover |
| Justification | Below benchmark conditions. Bare ground limits dispersal and increases predation risk. | Within benchmark conditions. Bare ground limits dispersal and increases predation risk. |

## Thatch Density

The EOAMS benchmarks for SLL include a thatch density <0.25 (ACT Government 2021). Build-up of thatch can negatively impact habitat by inhibiting dispersal and new growth. Whilst this factor may influence habitat quality for the species, it would be considered irrelevant should habitat constraints (as above) be absent. As such, a lower weighting has been assigned to this factor.

**Table 4-7 Rating System for Thatch Density**

| Score | 0 | 1 |
|---|---|---|
| Description | Thatch density >0.25 | Thatch density <0.25 |
| Justification | As per ACT Government (2021) | As per ACT Government (2021) |

## Canopy Cover

The EOAMS (ACT Government 2021) has a benchmark canopy and shrub cover of <10% for SLL (ACT Government 2015). Canopy cover may directly affect habitat quality by basking habitat, as a result of reduced light penetration. Whilst this factor may influence habitat quality for the species, it would be considered irrelevant should habitat constraints (as above) be absent. As such, a lower weighting has been assigned to this factor.

**Table 4-8 Rating System for Canopy Cover**

| Score | 0 | 1 |
|---|---|---|
| Description | Canopy cover >10% | Canopy cover <10% |
| Justification | As per ACT Government (2015; 2021) | As per ACT Government (2015; 2021) |

#### 4.2.2.2 Site Context

The spatial context of the site relates to habitat quality with consideration to the connectivity of a species, proximity to suitable habitat, the role of the site in relation to the overall population and/extent of the species and threatening factors.

##### Patch Size and Habitat Connectivity

Sites less than 0.5 ha or small isolated areas are unlikely to support an important population of SLL (DSWEPC 2011). Highly modified or urban habitats up to 10 ha have the potential to be critical habitat for the species (TSSC 2016). Within a study by Howland et al. (2016), the occurrence of the species was not impacted by the size of grassland remnants, ranging from 12.2 to 237.3 ha. Howland et al. (2016) notes that conservation efforts should still include smaller patches of degraded habitat and small patches of grassland may provide valuable habitat (ACT Government 2017a), particularly as refuge habitat where they occur near larger, protected areas. These smaller areas are likely to be more degraded and subject to a higher degree of disturbance as a result of edge effects. Sites that are, or form part of, large areas of habitat and/or have connectivity value contribute to the evolutionary potential of the species (TSSC 2016).

**Table 4-9 Rating System for Patch Size and Habitat Connectivity**

| Score | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **Description** | Small (<0.5ha) fragmented site, with no connectivity to an important population or managed reserve. | Small (<0.5ha) site, with connectivity to an important population or managed reserve. | Site is between 0.5ha and 10ha in size, occurs in an urban environment and is fragmented or highly modified (no connectivity to an important population or managed reserve). | Site is <10ha in size, but forms part of a larger area and is connected to habitat with an important population or to a site subject to conservation management such as a managed reserve. | Site is >10ha with no connectivity to an important population or managed reserve. | Site is >10ha with connectivity to an important population or managed reserve. |
| **Justification** | The site is small and fragmented and does not provide sufficient habitat to support the species. | The site is small, however will protect potential refuge habitat for an existing managed population. | The site supports the species, however, is fragmented and does not provide additional value to any larger reserves and/or populations. | The site provides connectivity to provide habitat sufficient in size to support the species. The site will protect potential refuge habitat for the existing managed population. | The site is of sufficient size to support the species and provides a diversity and abundance of foraging resources to sustain a healthy population. | The site is of sufficient size to support the species and provides connectivity to allow for dispersal and maintenance of genetic diversity of the species. The site will protect potential refuge habitat for an existing managed population. |

## Site Importance

The Conservation Advice (TSSC 2016) for the species defines habitat critical for the survival of the species as likely to include sites that possess more than one of:

- Breeding habitat – including tussocks with high biomass, and surface rocks and/or burrows. Two or more individuals have been recorded on site;
- Foraging habitat – the site is floristically diverse providing habitat for an abundance of foraging resources. There is little to no disturbance and connectivity to nearby grasslands;
- Refuge from disturbance – including tussocks with high biomass, and surface rocks and/ or burrows;
- Long term protection – e.g., the site is covenanted for management; and
- Connectivity – the site forms part of a large area of habitat not in an urban area or zoning that is connected to breeding habitat or protected habitat.

**Table 4-10 Rating System for Site Importance**

| Score | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **Description** | Habitat not considered critical to the survival of the species (i.e. does not include any of the five characteristics). | Site contains 1/5 characteristics of habitat critical to the survival of the species. | Site contains 2/5 characteristics of habitat critical to the survival of the species. | Site contains 3/5 characteristics of habitat critical to the survival of the species. | Site contains 4/5 characteristics of habitat critical to the survival of the species. | Site contains 5/5 characteristics of habitat critical to the survival of the species. |
| **Justification** | The site does not provide for factors important to the survival of the species. | Site importance will increase with the diversity of characteristics important to the species survival that are provided. | Site importance will increase with the diversity of characteristics important to the species survival that are provided. | Site importance will increase with the diversity of characteristics important to the species survival that are provided. | Site importance will increase with the diversity of characteristics important to the species survival that are provided. | Site importance will increase with the diversity of characteristics important to the species survival that are provided. |

### Threats

Disturbances, such as ploughing or heavy grazing can impact upon foraging habitat and refuges, which are required to sustain a healthy population of SLL (TSSC 2016). Key threats to the species include:

- Urban development
- Overgrazing
- Ploughing and pasture improvement
- Weed invasion
- Predation by cats and foxes
- Inappropriate timing of burning of grasslands.

Loss and degradation of habitat presents the greatest threat to the species (TSSC 2016). Beyond direct loss of habitat, degradation of habitat through ploughing or overgrazing can cause fragmentation of habitats through barriers to dispersal (Dorrough and Ash 1999). Howland et al. 2016 recorded a strong negative relationship between the density of grazers and grass structure, which significantly affected reptile abundance. SLL were more likely to be detected in areas subject to moderate grazing intensity, suggesting the species is affected by high intensity grazing but requires habitats subject to enough grazing disturbance to maintain complex grass structures. Heavy grazing results in bare areas that are actively avoided and limit dispersal of the species (Dorrough 1995, cited by TSSC 2016). It may also increase risk of trampling and predation (Howland et al. 2014).

Past disturbance also appears to be a stronger indicator of presence than floristic composition of a site. The species has been recorded as less abundant on sites with an adverse disturbance history (Dorrough 1995, cited by TSSC 2016) and is suggested that habitats with disturbances in the last 10 years do not provide habitat critical to the survival of the species (TSSC 2016).

Weed invasion of exotic species such as African lovegrass (*Eragrostis curvula*) and serrated tussock (*Nassella trichotoma*) can also pose a threat to the species, altering structure, removing availability of basking habitat and increasing fire intensity (Williams et al. 2015, cited by TSSC 2016).

Predation by cats and foxes is a suspected threat to the species, with some anecdotal evidence cited (Robertson and Smith 2010) and is particularly relevant in urban areas adjoining populations.

Fire has also been recorded as causing mortality in the species (Coulson 1995) and inappropriate timing of burns may be detrimental to the species, through reduced vegetation cover and complexity and subsequent impacts to prey availability and predation risk (TSSC 2016; Morgan and Lunt 1999). Required burning frequencies for the species have been suggested at between less than once every three years (TSSC 2016) and less than one in every five years (O'Shea 2005). Lack of fire (or equivalent biomass reduction) can also impact populations through senescence of tussock forming species and a loss of structural diversity (Morgan and Lunt 1999). A balance between burning and grazing is required to promote population persistence. Widespread and simultaneous burning and grazing regimes can threaten population persistence (Scroggie et al. 2019).

A threat matrix has been produced to score the absence of threats (Table 4-11). The rating system for the threat matrix has been adapted from IUCN-CMP (2007), DES (2020) and DCCEEW (2024). The likelihood refers to the probability of the site being affected by the threat within ten years given the current circumstances and trends.

The five-point rating scale is:

- Very high: Threat is known or very likely to occur and is expected to occur.
- High: Threat is likely to occur and will probably occur within ten years.
- Medium: Threat is possible and may occur within ten years.
- Low: Threat is unlikely to occur, however could occur within ten years.
- Very low: Threat is rare and would only occur in exceptional circumstances.

The severity refers to the potential level of damage from the threat, given the circumstances of the site. The five-point rating scale is:

- Very high: Severe and widespread loss and irrecoverable damage. Threat has the potential to result in the destruction of the species' habitat by 80-100% within ten years.
- High: Major loss and danger of continuing. Threat has the potential to seriously degrade or reduce the species' habitat by 40-79% within ten years.
- Medium: Substantial damage that could be reversed with intensive efforts. Threat has the potential to moderately degrade or reduce the species' habitat by 11-39% within ten years.
- Low: Isolated but substantial damage that could be reversed with intensive efforts Threat has the potential to slightly degrade or reduce the species' habitat by 6-10% within ten years.
- Very low: Minor incident that can be reversed. Threat will have negligible impact or degrade or reduce habitat by 1-5% within ten years.

**Table 4-11 Threat Matrix**

| | | | Severity | | | | |
|---|---|---|---|---|---|---|---|
| | | | Very High | High | Medium | Low | Very Low |
| | | | 1 | 2 | 3 | 4 | 5 |
| Likelihood | Very High | 1 | 1 | 2 | 3 | 4 | 5 |
| | High | 2 | 2 | 4 | 6 | 8 | 10 |
| | Medium | 3 | 3 | 6 | 9 | 12 | 15 |
| | Low | 4 | 4 | 8 | 12 | 16 | 20 |
| | Very Low | 5 | 5 | 10 | 15 | 20 | 25 |

**Table 4-12 Rating System for Absence of Threats**

| Score | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| Description | Average score of 0-3 | Average score of 4-7 | Average score of 8-11 | Average score of 12-15 | Average score of 16-21 | Average score of 22-25 |
| Justification | Breakdown of possible threat scores | Breakdown of possible threat scores | Breakdown of possible threat scores | Breakdown of possible threat scores | Breakdown of possible threat scores. Highest weighting where the lowest threat rating occurs to reflect higher habitat quality. | Breakdown of possible threat scores. Highest weighting where the lowest threat rating occurs to reflect higher habitat quality. |

### 4.2.2.3 Species Stocking Rate

The consideration of species density and usage of a site acknowledges the value that may be provided by a site, despite appearing to have a poor condition or context.

#### Role of site in regard to overall population (population importance)

Under the EPBC Act, an important population is one that is necessary for a species' long-term survival and recovery (DSEWPC 2011). This may include populations identified as such in recovery plans, and/or that are:

- key source populations either for breeding or dispersal;
- populations that are necessary for maintaining genetic diversity; and
- populations that are near the limit of the species range.

An important population of SLL is one that meets at least one of the criteria outlined above and is likely to be viable over the long-term. To be viable, a population must occur in suitable habitat with the ability for population dynamics (for example breeding, recruitment and dispersal) to occur over time.

The Conservation Advice for the species (TSSC 2016) notes that all populations of the species are likely to be important populations for the recovery of the species, as a result of ongoing threats to the species and grassland habitat.

Breeding habitat is defined as habitat where “the presence of two or more adult individuals or juveniles (lizards < 70 mm snout to vent length) is confirmed on site and a habitat assessment confirms that the site contains complex grass structures including areas of tussocks with high biomass, surface rocks or invertebrate burrows necessary as sites for oviposition and which provide protection for eggs from disturbance. This may include sites with exotic grasses” (TSSC 2016).

**Table 4-13 Rating system for Population Importance**

| Score | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **Description** | Population is not classified as an important population. | Population is not classified as an important population, however, occurs within breeding habitat. | Population meets at least one criterion to be identified as an important population, however is not considered to be viable over the long-term. | Population meets at least one criterion to be identified as an important population and is considered to be viable over the long-term. | Population meets at least two criteria to be identified as an important population, and is considered to be viable over the long-term. | Population meets at least three criteria to be identified as an important population, and is considered to be viable over the long-term. |
| **Justification** | The population at the site is unlikely to be important to the overall population. | The population at the site is not considered important, however is a breeding population (as evidenced by breeding habitat), contributing to the persistence of the species in the locality. | The population is considered important, however occurs in unsuitable habitat unlikely to support long-term viability. | The population is considered important and contributes to the long-term persistence of at least one criterion, thereby maintaining the genetic diversity and or/ range of the species. | The population is considered important and contributes to the long-term persistence of at least two criteria, thereby maintaining the genetic diversity and or/ range of the species. | The population is considered important and contributes to the long-term persistence of all three criteria, thereby maintaining the genetic diversity and range of the species. |

## Species Density

Estimates of SLL density range from 10-40 individuals per hectare (DCCEEW 2022). High density populations will be the most important for the persistence of a population within a locality. Where no SLL are present, a site within the modelled distribution of the species can still provide important refuge habitat for refuge from disturbance events (TSSC 2016).

**Table 4-14 Rating system for Species Density**

| Score | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| **Description** | Species not present and the site is not within the known or modelled distribution of the species (ACTmapi). | Site is within the 'likely to occur' modelled distribution of the species, however the species has not been recorded on site. | At least one individual recorded on site. | Two or more individuals recorded on site at a density of <10 individuals per hectare. | More than two individuals recorded on site at a density of 10-20 individuals per hectare. | More than two individuals recorded on site at a density of 20+ individuals per hectare. |
| **Justification** | The site is unlikely to support the species | The species has the potential to occur on site and the site may provide important refuge. | The site is known provide suitable habitat for the species. | The site can be classified as "breeding habitat", however does not support a high density of SLL. | The site supports a high density of SLL. | The site supports a high density of SLL. |

### 4.2.2.4 Scoring System

Table 4-15 provides the maximum habitat quality scores for each attribute and indicator, based on the review of information provided above.

**Table 4-15 Maximum Habitat Quality Score and Impact Calculator Values**

| Attribute | Indicator | Maximum Score | Weighting | Maximum Weighted Score |
|---|---|---|---|---|
| **Site Condition** | Structure and Composition | 5 | 0.3 | 5 |
| | Sward Height | 5 | 0.3 | |
| | Tussock Cover | 5 | 0.3 | |
| | Bare Ground | 1 | 0.2 | |
| | Thatch Density | 1 | 0.2 | |
| | Canopy Cover | 1 | 0.1 | |
| **Site Context** | Patch size and connectivity | 5 | 0.2 | 3 |
| | Site Importance | 5 | 0.2 | |
| | Threats | 5 | 0.2 | |
| **Species Stocking Rate** | Population Importance | 5 | 0.2 | 2 |
| | Species Density | 5 | 0.2 | |

### 4.2.3 Site Assessment Methodology

Site walkovers were conducted at the impact site and proposed offset site, on 1 September 2022, to identify distinct differences in habitat across each site (e.g., areas of canopy, areas with a noticeable difference in tussock density). Following each site walkover, species composition and cover were measured within stratified 400 $m^2$ plots (20 m x 20 m). One plot was conducted in each distinct area of habitat. This resulted in one plot within the impact site and a total of three plots within the potential offset site. The following variables were recorded for each plot:

- Bare ground cover;
- Rock cover;
- Cover of short grasses (<20 cm);
- Medium-tall tussock cover (20-80 cm, measured as the average height of above ground leaf);
- Canopy cover (of shrubs and trees);
- Floristic composition of plot; and
- Any other notes on connectivity, disturbance or additional habitat features (e.g., invertebrate burrows).

## 4.3 IMPACT SITE

### 4.3.1 Habitat Quality Score

A habitat quality score for the impact site was calculated as per the habitat quality assessment methodology outlined in Section4.2. The Offsets Assessment Guide was used to calculate a total quantum impact of 2.03 adjusted ha of SLL habitat (Table 4-16). The Protected Matter Attribute relates to habitat critical to the survival of the SLL, therefore the offset is to be assessed against “area of habitat” (DSEWPC 2012b). The impact calculator generates the total quantum of impact on habitat by multiplying the residual impact area by the quality of the habitat (DSEWPC 2012b).

**Table 4-16 Habitat Quality Score and Impact Calculator Outputs for Impact Site**

| Attribute | Indicator | Value/Score | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|
| **Area** | | 4.05 ha | Area of unavoidable impact. | | **4.05 ha** |
| **Quality** | | | | | |
| **Site Condition** | Structure and Composition | 2 | As per site assessment, the grasslands are overgrown and senescent with no structural diversity. | 0.3 | **0.6** |
| | Sward Height | 2 | Value as per site assessment observations. | 0.3 | **0.6** |
| | Tussock Cover | 4 | Value as per site assessment observations. | 0.3 | **1.2** |
| | Bare Ground | 1 | Value as per site assessment observations. | 0.2 | **0.2** |
| | Thatch Density | 0 | Value as per site assessment observations. | 0.2 | **0** |
| | Canopy Cover | 1 | Value as per site assessment observations. | 0.1 | **0.1** |
| **Site Context** | Patch size and connectivity | 3 | Site is <10 ha in size, but forms part of a larger area and is connected to habitat with an important population or to a site subject to conservation management such as a managed reserve. | 0.2 | **0.6** |
| | Site Importance | 3 | Site contains 3/5 characteristics of habitat critical to the survival of the species. The site provides foraging habitat, potential refuge from disturbance and connectivity to protected habitat, however, has not been recorded as breeding habitat and is not covenanted for management. | 0.2 | **0.6** |
| | Threats | 2 | As per Appendix E. | 0.2 | **0.4** |

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| Attribute | Indicator | Value/Score | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|
| **Species Stocking Rate** | Population Importance | 3 | The population at the impact site has been considered to be a component of the Jerrabomberra *Delma impar* important population. Although the site has not been considered to constitute breeding habitat, based on records, it may still be considered viable due to dispersal potential provided by connectivity with Jerrabomberra East Grasslands. | 0.2 | **0.6** |
| | Species Density | 2 | At least one individual has been recorded on site. | 0.2 | **0.4** |
| **Score (raw)** | | | Score as per scoring and weighting above. (rounded to nearest whole number) | | **5** |
| **Total Quantum of Impact** | | | Adjusted Hectares, as per Offset Assessment Guide Calculations. | | **2.03 ha** |

# 4.4 DIRECT OFFSET SITE

## 4.4.1 Habitat Quality Score

A habitat quality assessment was completed (based on the methodology outlined in Section 4.2) for the proposed offset site and used to develop start and future habitat quality scores for the direct offset area. Table 4-17 provides a summary of the results of the habitat assessment carried out for the direct offset site. Table 4-18 provides a summary of the future habitat quality score of the proposed offset site if no offset was applied and Table 4-19 provides a summary of future habitat quality score if the offset was applied.

**Table 4-17 Habitat Quality Score for Direct Offset Site**

| Attribute | Indicator | Value/ Score | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|
| Proposed Area | | 12.2 ha | Offset area required for 100% direct offset. | | **12.2 ha** |
| **Quality** | | | | | |
| Site Condition | Structure and Composition | 3 | The grasslands are structurally diverse, with areas of shorter grass and forbs interspersed between denser patches of medium-tall tussock grasses, however, were considered to be high in biomass during the site assessment. The site is predominately composed of exotic flora species. | 0.3 | **0.9** |
| | Sward Height | 2 | Value as per site assessment observations. | 0.3 | **0.6** |
| | Tussock Cover | 4 | Value as per site assessment observations. | 0.3 | **1.2** |
| | Bare Ground | 1 | Value as per site assessment observations. | 0.2 | **0.2** |
| | Thatch Density | 0 | Value as per site assessment observations. | 0.2 | **0** |
| | Canopy Cover | 1 | Value as per site assessment observations. | 0.1 | **0.1** |
| Site Context | Patch size and connectivity | 5 | Site is >10ha with connectivity to an important population or managed reserve. | 0.2 | **1** |
| | Site Importance | 4 | Site contains 4/5 characteristics of habitat critical to the survival of the species. The site provides foraging habitat, breeding habitat (as evidenced by more than one individual recorded on site), potential refuge from disturbance and connectivity to protected habitat, however, is not covenanted for management. | 0.2 | **0.8** |
| | Threats | 2 | As per Appendix E. | 0.2 | **0.4** |

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| Attribute | Indicator | Value/ Score | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|
| Species Stocking Rate | Population Importance | 4 | Population meets at least two criteria to be identified as an important population and is considered to be viable over the long-term. The site provides suitable breeding and dispersal habitat and supports populations for the maintenance of genetic dispersal, through breeding habitat on site and potential for dispersal to the adjoining reserve. | 0.2 | **0.8** |
| | Species Density | 3 | A total of 6 SLL were captured during targeted surveys conducted in 2022 (Cardno, now Stantec 2022). These captures represent a minimum of two individual lizards. | 0.2 | **0.6** |
| **Score** | | | Sum of attribute scores.<br>Score as per scoring and weighting above. (rounded to nearest whole number) | | **7** |

**Table 4-18 Future Habitat Quality Score for Direct Offset Site (without Offset)**

| Attribute | Indicator | Initial Value/Score | Future Value/Score (without Offset) | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|---|
| **Quality** | | | | | | |
| Site Condition | Structure and Composition | 3 | 2 | The grasslands are structurally diverse, with areas of shorter grass and forbs interspersed between denser patches of medium-tall tussock grasses, however, were considered to be high in biomass during the site assessment. The site is predominately composed of exotic flora species.<br>The offset site includes invasive weeds, such as Serrated Tussock (*Nassella trichotoma*) which may present a serious threat to *D. impar* habitat. Monitoring of the adjacent grasslands (prior to establishment as an offset in 2021) noted that Serrated Tussock occurred only in scattered patches and in low density in 2010-2011, however had spread throughout much of the site by 2017 and would be considered the most significant threat to *D. impar* habitat value at the site (Capital Ecology 2018). The spread of exotic grasses, including Serrated Tussock, is listed as a key threat for the species (TSSC 2016) due to the threat of degrading habitat structure, removing basking sites and increasing fire intensity (Williams et al. 2015; cited by TSSC 2016). Without the offset, the site is expected to experience an increase in weed abundance and subsequent decline in habitat structure.<br>Based on the site assessment, the offset site is high in biomass and there is limited evidence of grazing under the current management regime. Lack of biomass reduction is considered to be a | 0.3 | **0.6** |

| Attribute | Indicator | Initial Value/Score | Future Value/Score (without Offset) | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|---|
| | | | | threat to populations through a reduction in inter tussock space and senescence of tussock-forming species (Morgan and Lund 1999). Howland et al. (2016) noted that there was a strong negative relationship between kangaroo density and grass structure and SLL were most likely to occur in areas subject to moderate grazing intensity.<br>Under the current management regime, it is considered that grasses within the site would continue to become overgrown and senescent without adequate biomass reduction (Morgan and Lund 1999). As such, the site would be expected decline in structural diversity. | | |
| | Sward Height | 2 | 1 | Initial value as per site assessment observations. As above, there is limited evidence of grazing or analogous biomass maintenance on site. Under the current management regime, it is expected that sward height would trend further away from benchmark as there is no maintenance or enhancement occurring under current management practices. | 0.3 | **0.3** |
| | Tussock Cover | 4 | 4 | Initial value as per site assessment observations. Although potential impacts to the land without offset may result in reduced cover, these do not reflect current circumstances (i.e. under existing management) and have instead been considered under threats. A precautionary approach has been undertaken in maintaining this score. | 0.3 | **1.2** |

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| Attribute | Indicator | Initial Value/Score | Future Value/Score (without Offset) | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|---|
| | Bare Ground | 1 | 1 | Initial value as per site assessment observations. The site currently has a bare ground cover <10% and although potential impacts to the land without offset may result in increased bare ground, these do not reflect current circumstances (i.e. under existing management) and have instead been considered under threats. A precautionary approach has been undertaken in maintaining this score. | 0.2 | **0.2** |
| | Thatch Density | 0 | 0 | Initial value as per site assessment observations. Thatch density is currently above the benchmark value (i.e., too high) and is considered unlikely to improve (i.e., reduce) under current management practices as the accumulation of high amounts of thatch relates to the high biomass conditions and lack of biomass management and analogous disturbances on site. | 0.2 | **0** |
| | Canopy Cover | 1 | 1 | Initial value as per site assessment observations. Due to the low level of canopy cover at the offset site, it is considered unlikely that this will increase to above 10% under current management practices. | 0.1 | **0.1** |
| Site Context | Patch size and connectivity | 5 | 5 | Site is >10ha with connectivity to an important population or managed reserve. Although there is potential for the loss of habitat without offset, this has been accounted for elsewhere. A precautionary approach has been undertaken in maintaining this score. | 0.2 | **1** |

OFFSET ANALYSIS

| Attribute | Indicator | Initial Value/Score | Future Value/Score (without Offset) | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|---|
| | Site Importance | 4 | 4 | Currently the site contains 4/5 characteristics of habitat critical to the survival of the species. The site provides foraging habitat, breeding habitat (as evidenced by more than one individual recorded on site), potential refuge from disturbance and connectivity to protected habitat. A precautionary approach has been undertaken in maintaining this score. | 0.2 | **0.8** |
| | Threats | 2 | 1 | As per Appendix E. | 0.2 | **0.2** |
| Species Stocking Rate | Population Importance | 4 | 4 | This score has been maintained from the initial offset score as a change in the population structure cannot reliably be predicted. | 0.2 | **0.8** |
| | Species Density | 3 | 3 | A total of 6 SLL were captured during targeted surveys conducted in 2022 (Cardno, now Stantec 2022). These captures represent a minimum of two individual lizards. This score has been maintained from the initial offset score as a change in SLL density cannot reliably be predicted. | 0.2 | **0.6** |
| **Score** | | | | Sum of attribute scores.<br>Readjusted score as per scoring and weighting above. (rounded to nearest whole number) | | **6** |

**Table 4-19 Future Habitat Quality Score for Direct Offset Site (with Offset)**

| Attribute | Indicator | Initial Value/Score | Future Value/ Score (with Offset) | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|---|
| **Quality** | | | | | | |
| Site Condition | Structure and Composition | 3 | 4 | The OMP includes a performance target to maintain herbage mass within the recommended parameters utilising appropriate disturbance regimes. Actions under the OMP include the monitoring of herbage mass levels and maintenance of biomass levels in accordance with SLL requirements. Biomass management is important in managing SLL habitat (Candy 2008; O'Shea 2013, cited by Osborne 2013) and both overgrazing and excess growth have potential to result in poor grassland structures. Howland et al. (2016) noted a higher abundance of SLL with moderate grazing (analogous to management of biomass within appropriate levels), which was consistent with a more complex grassland structure.<br>At the time of assessment, the grasslands were structurally diverse, with areas of shorter grass and forbs interspersed between denser patches of medium-tall tussock grasses, however, were considered to be high in biomass, with limited evidence of grazing present. As such, there is opportunity for improved habitat quality from the current conditions with a reduction in biomass.<br>Under the Ecological Guidelines for Fire, Fuel and Access Management Operations 2019 (ACT Government 2019) slashing, | 0.3 | **1.2** |

| Attribute | Indicator | Initial Value/Score | Future Value/ Score (with Offset) | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|---|
| | | | | ecological grazing and/or eco-burns will be implemented to manage herbage mass to appropriate levels.<br>Management of biomass and grassland structure under the OMP would be informed by available guidelines and tools produced by the ACT Government. This includes findings from trials of disturbance regimes to manage grassland biomass and structure through ecological burns and strategic grazing (ACT Government 2017a; ACT Government 2017b; ACT Government 2024a). The proposed management actions are based on habitat improvement actions commonly implemented in other reserves with similar land management issues and requirements. The ACT Government (2018) has undertaken extensive research into predicting appropriate kangaroo densities for individual sites. This includes specific findings on the understanding of appropriate stocking rates specific to different grass associations, including exotic perennials with a high herbage mass. Although these findings acknowledge limitations in grazing as a single management tool, due to variation in off-take rates and foraging efficiency, alternative herbage mass removal techniques (such as slashing and fire) are acknowledged as suitable alternatives to maintain pasture within palatable thresholds for native grazers.<br>As the offset site will be managed under the EOAMS, management will be refined in response to monitoring data, research, land | | |

| Attribute | Indicator | Initial Value/Score | Future Value/ Score (with Offset) | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|---|
| | | | | management advances and emerging threats. Monitoring of herbage mass under the OMP will utilise the Herbage Mass Dashboard Tool, developed by the Herbage Mass Working Group for management of Canberra Nature Park, to guide land managers and allow for data interrogation and review of management outcomes.<br>Adaptive management of the site will also include management of biomass in response to climatic conditions. Increased suitable habitat from rainfall (i.e., increased biomass) and altered grazing regimes have resulted in habitat improvements for SLL at Nadjung Mada (also managed under EOAMS and CNP RMP) and subsequent stabilisation of population numbers (ACT Government 2023a).<br>Compliance reporting for other EPBC Offsets managed by PCS, which have been managed for (or are nearing management for) the duration until ecological benefit, note appropriate management and maintenance of biomass has been achieved (ACT 2024b; see recent annual reports for Bonner East Offset Area and Jarramlee Offset Area).<br>Within this assessment, future structure and composition have been capped at a score of four as management does not include revegetation with native species and it is unlikely that management of the site would result in dominance of native species. | | |

OFFSET ANALYSIS

| Attribute | Indicator | Initial Value/Score | Future Value/ Score (with Offset) | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|---|
| | Sward Height | 2 | 4 | The sward height is currently well above benchmark levels identified in the EOAMS. The OMP includes a performance target to maintain vegetation height within a suitable range for the species and the EOAMS identifies the target conditions for the improvement of habitat. As per the OMP and EOAMS, where metrics fall outside the desired values then the appropriate corrective action will be implemented. This may include altering grazing regimes or slashing to bring sward heights closer to benchmark values. Technical research into kangaroo grazing within ACT grasslands (ACT Government 2018) provides guidance for land managers in managing grass height.<br>It is noted that the EOAMS may adopt additional performance targets for each site, based on baseline conditions collected from three consecutive years of surveys.<br>Improvements in habitat value scoring for sward height have been capped below benchmark, given the variation between current conditions and benchmark conditions. This acknowledges that there is uncertainty that management actions may not achieve the benchmark condition (i.e., ideal/ reference condition of relatively intact system) due to the dominance of non-native vegetation. | 0.3 | **1.2** |
| | Tussock Cover | 4 | 4 | Although management commitments, such as the review of track and trail locations, may result in additional cover approaching benchmark, the OMP does not include active revegetation of | 0.3 | **1.2** |

| Attribute | Indicator | Initial Value/Score | Future Value/ Score (with Offset) | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|---|
| | | | | native species and therefore potential increases in cover are difficult to quantify. A precautionary approach has been undertaken in maintaining this score. | | |
| | Bare Ground | 1 | 1 | Initial value as per site assessment observations. The site currently has a bare ground cover <10%. The OMP includes commitments to “review tracks and trails within West Kenny and locate them outside of MNES areas where required”, thereby reducing areas of bare ground, which can represent a dispersal barrier to the species (DCCEEW 2022). As such, bare ground cover will be maintained below 10%. | 0.2 | **0.2** |
| | Thatch Density | 0 | 1 | The accumulation of high amounts of thatch relates to the high biomass conditions. The implementation of appropriate disturbance regimes under the OMP, in particular ecological burning, can be used to reduce thatch (ACT Government 2023b).<br>Additionally, as high amounts of thatch relate to high biomass conditions, management actions aimed at reducing biomass levels towards benchmark will also directly assist in maintaining appropriate levels of thatch into the future. | 0.2 | **0.2** |
| | Canopy Cover | 1 | 1 | Initial value as per site assessment observations. Management of the site will not include removal of canopy cover, however due to the low level of canopy cover at the offset site, it is considered unlikely that this will increase to above 10% without active management. | 0.1 | **0.1** |

OFFSET ANALYSIS

| Attribute | Indicator | Initial Value/Score | Future Value/ Score (with Offset) | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|---|
| Site Context | Patch size and connectivity | 5 | 5 | Site is >10ha with connectivity to an important population or managed reserve. The OMP focuses on maintenance and enhancement of existing habitat. The current level of connectivity will be maintained with the offset and associated management actions. | 0.2 | **1** |
| | Site Importance | 4 | 5 | At the time of assessment, the site contained 4/5 characteristics of habitat critical to the survival of the species. The site currently provides foraging habitat, breeding habitat (as evidenced by more than one individual recorded on site), potential refuge from disturbance and connectivity to protected habitat. The offset would be legally secured in perpetuity as a nature reserve through a Territory Plan Variation and be covenanted for management which will increase recognition of site importance. | 0.2 | **1** |
| | Threats | 2 | 3 | See Appendix E for justification of change from 2 to 3. | 0.2 | **0.6** |
| | Population Importance | 4 | 4 | At the time of assessment, it was considered the population met at least two criteria to be identified as an important population and was considered to be viable over the long-term. Currently, the site provides suitable breeding and dispersal habitat and supports populations for the maintenance of genetic dispersal, through breeding on site and potential for dispersal to the adjoining reserve. This score has been maintained from the initial offset score as the OMP focusses on habitat maintenance | 0.2 | **0.8** |

OFFSET ANALYSIS

| Attribute | Indicator | Initial Value/Score | Future Value/ Score (with Offset) | Justification | Weighting | Value/ Weighted Score |
|---|---|---|---|---|---|---|
| | | | | and enhancement and a change in the population cannot reliably be predicted. | | |
| Species Stocking Rate | Species Density | 3 | 3 | A total of 6 SLL were captured during targeted surveys conducted in 2022 (Cardno, now Stantec 2022). These captures represent a minimum of two individual lizards. This score has been maintained from the initial offset score as the OMP focusses on habitat maintenance and enhancement and a change in SLL density with management cannot reliably be predicted. | 0.2 | 0.6 |
| **Score** | | | | Sum of attribute scores.<br>Readjusted score as per scoring and weighting above. (rounded to nearest whole number) | | 8 |

### 4.4.2 Calculations

Outlines the outputs of the offset calculator. The offset calculator provides the degree to which the direct offset compensates for the total quantum of impact, taking into account the annual probability of extinction of the protected matter, timeframes of management and future scenarios with and without the offset (DSEWPC 2012b).

**Table 4-20 Offset Calculator Outputs for Direct Offset Site**

| Attribute | Value/ Score | Rationale |
|---|---|---|
| **Time Horizon (years)** | | |
| **Time over which loss is averted** | 20 years | Maximum of 20 years. |
| **Time until ecological benefit** | 10 years | Conservative estimate based on timeframes for similar proposed works developed for reserves with similar land management issues and requirements (e.g. TAMS 2014). 10 years considered to be acceptable timeframe based on correspondence with PCS (J. Pellegrino, personal communication, 18 May 2023).<br>Allows for a lag due to unforeseeable climate variations. |
| **Start Quality** | | |
| **Proposed Area** | 12.2 ha | Offset area required for 100% direct offset. |
| **Score** | **7/10** | As per Table 4-17. |
| **Future Quality Without Offset** | | |
| **Score** | **6/10** | As per Table 4-18. |
| **Risk of loss without offset** | 0% | Risks that may directly impact habitat quality in the future (without offset), such as development encroachment and fire, cannot be accounted for in “risk of loss without offset”. These risks have been considered as a decline in habitat quality without offset as they are not mitigated by the current management practices (i.e., no active management). |
| **Future area without offset** | 12.2 | Adjusted Hectares, as per Offset Assessment Guide Calculations. |

| Attribute | Value/ Score | Rationale |
|---|---|---|
| **Future Quality With Offset** | | |
| **Score** | **8/10** | As per Table 4-19. |
| **Risk of loss with offset** | 0% | The area would be protected in perpetuity. |
| **Future area with offset** | 12.2 | Adjusted Hectares, as per Offset Assessment Guide Calculations. |
| **Confidence in results** | | |
| **Averted Loss** | 75% | The Offsets Assessment Guide states "*For the averted loss component, confidence in result captures the level of certainty about the strength and effectiveness of the proposed risk-mitigation measures and the capacity of these measures to mitigate the risk of loss of the site"* (DSEWPC 2012b).<br>Protection through an offsetting mechanism provides a high level of confidence that the site (or part of the site) will not be lost, particularly as the site falls within Future Urban Area zoning and exists within a landscape surrounded by urban pressures. A moderate level of confidence has been afforded to the averted loss component as there is potential for external factors (e.g., climate, population dynamics) to influence adverse outcomes. |
| **Quality** | 85% | The Offsets Assessment Guide states *"For the change in habitat quality component, the confidence in result captures the level of certainty about the successful achievement of the proposed change in quality. This includes the degree to which the proposed offset actions can be achieved and how likely they are to provide a benefit to the protected matter"* (DSEWPC 2012b). The past record of the proponent should be taken into account (i.e., the confidence in result must account for the confidence in being able to achieve the conservation gain, as well as the risk that the offset may not be delivered).<br>The offset is considered likely to provide benefit to the protected matter through the maintenance and improvement of habitat quality and averted losses through management of threats.<br>The site consists of exotic vegetation providing habitat to the species and the rehabilitation of the site to benchmark conditions (i.e., ideal/ reference condition of relatively intact system) would be considered unlikely. This has been taken into consideration in assessing proposed changes in habitat quality. Management actions within the OMP are specific to SLL and based on habitat improvement actions commonly implemented in other reserves with similar land management issues and requirements and/ or the management and removal of key threats to the species (see Tables 6-1 to Table 6-6 in the OMP). Proposed changes in quality reflect a shift towards adjusted benchmark conditions but do not predict gains that will provide ideal habitat for the species. |



| Attribute | Value/ Score | Rationale |
|---|---|---|
| | | The site will be managed according to the EOAMS, which adopts its own performance targets for each site, based on baseline conditions collected from three consecutive years of surveys.<br>The performance objectives for the site relate to the maintenance of attributes within the recommended parameters. The OMP includes triggers for corrective actions, under which management of the site will be undertaken to improve and maintain habitat quality within adjusted benchmark conditions.<br>The EOAMS acknowledges uncertainty in the effects of threatening processes and their management; the ecology of species; and climate variability and provides an adaptive framework that enables management to be refined in response to monitoring data, research and land management advances, or emerging threats through a process of monitoring, evaluation, and review.<br>It is considered that there is a low risk of the offset not being delivered as:<br>• The OMP and OMS have been developed in consultation with the ACT Government's EPSDD, including the Offset Team who will manage the site. This team has an excellent track record managing offsets within the ACT.<br>• Preliminary funding has been secured and management actions have commenced. Ongoing funding will be secured through the ACT Budget Process.<br>• Management is to be undertaken in accordance with Canberra Nature Park Reserve Management Plan and other relevant ACT legislation, policy, strategies, and plans, which include specific guidance for the species' based on management and research carried out at similar sites.<br>• Management will be undertaken as per the Environmental Offsets Adaptive Management Strategy (EOAMS) (ACT Government 2021). The EOAMS implements a risk management framework to ensure performance targets and objectives are met for each offset site. The EOAMS risk assessment process acknowledges the inherent level of risk associated with the uncertainty of natural systems and accepts the necessity of some risk taking in working towards conservation gain, ensuring these risks are managed through rigorous monitoring and review.<br>• EPSDD Parks and Conservation has a set of developed spatial tools to inform and aid adaptive management. These can be used to interact with and interrogate the data to explore changes over time, prioritise actions, and review outcomes of management activities. |



OFFSET ANALYSIS

| Attribute | Value/ Score | Rationale |
|---|---|---|
| | | • EPSDD undertake extensive survey, monitoring and research actions across the ACT and are well equipped to implement adaptive management actions.<br>• As the offset site will be managed under the EOAMS, management will be refined in response to monitoring data, research, land management advances and emerging threats.<br>A moderate level of confidence has been afforded to the habitat quality component, with acknowledgement of knowledge gaps, uncertainties and potential for external factors (e.g., climate, population dynamics) to influence adverse outcomes. |
| **Raw gain** | | |
| **Area** | 0.00 | Difference between future area without offset and future area with offset. |
| **Quality** | 2.00 | Difference between future quality score without offset and future quality score with offset. |
| **Adjusted gain** | | |
| **Area** | 0.00 | As per Offset Assessment Guide Calculations. |
| **Quality** | 1.70 | As per Offset Assessment Guide Calculations. |
| **Net present value** | **2.03** | Adjusted Hectares, as per Offset Assessment Guide Calculations. |



**EPBC 2020//8788 OFFSET STRATEGY**

OFFSET ANALYSIS

| Attribute | Value/ Score | Rationale |
|---|---|---|
| **Net present value of impact site** | **2.03** | Adjusted Hectares, as per Offset Assessment Guide Calculations. |
| **Percentage of impact offset** | **100.39 %** | As per Offset Assessment Guide Calculations. |

# 4.5 MANAGEMENT

The offset proposes to maintain and enhance the quality and extent of SLL habitat within the offset site. The following section provides an overview of initial management actions that may be undertaken to achieve the outcomes of this offset strategy. These actions would be further detailed within the OMP and implemented by PCS upon establishment of the offset site.

As offset sites form part of the ACT Reserve System, conservation objectives must also be consistent with the objectives of the Canberra Nature Park Reserve Management Plan (ACT Government 2020) and the Conservation Effectiveness Monitoring Program (CEMP) framework (Brawata, Stevenson and Seddon 2017). This includes:

- Undertaking good land management, including appropriately implementing ACT Government reserve management programs, such as weed, pest, and fire management; and
- Gaining more knowledge of how ecosystems and their components (including MNES) function and interact, and how management actions influence these processes.

## 4.5.1 Management Zones and Strategies

The proposed offset site is not known to contain any non-committed MNES values, and thus, all 12.2 ha of the proposed offset site has been assigned to one management zone for SLL habitat. For effective threat management, actions such as weed and biomass control should be conducted across the broader block. Habitat enhancement actions have also been recommended as part of this offset strategy.

### 4.5.1.1 Weed Control

Weed control should focus on the suppression and containment of invasive weeds that may present a serious threat to SLL foraging habitat. It should be noted that the site is dominated by *Phalaris aquatica*, an exotic tussock grass that provides habitat for SLL. Target weeds of a high priority for control are outlined below. Those that were noted during targeted surveys or the habitat assessment are in bold.

- **Serrated Tussock (*Nassella trichotoma*);**
- **Patterson's Curse (*Echium plantagineum*);**
- **St John's Wort (*Hypericum perforatum*);**
- **Sweet Briar (*Rosa rubiginosa*);**
- Saffron Thistles (*Carthamus lanatus*);
- Chilean Needlegrass (*Nassella neesiana*);
- African Lovegrass (*Eragrostis curvula*); and
- Any Weeds of National Significance (WoNS).

Methods for weed control may include grazing, spot-spraying and ecological burns.

#### 4.5.1.2 Biomass Control

Biomass control will be utilised to maintain appropriate habitat structure for SLL and meet ACT Bushfire Management Standards (ACT Government 2014). Methods to control biomass within the offset site may include:

- Manipulation of grazing regimes (native and introduced grazers);
- Ecological burns;
- Slashing; and
- Targeted weed control (spot spraying) of target weed species during active growth period.

#### 4.5.1.3 Habitat Enhancement

Available SLL habitat within the West Kenny Offset site would be enhanced through appropriate management actions undertaken by PCS. Methods of enhancement within the offset site may include:

- Restore the average grass height to 10-20 cm;
- Maintain grass cover at least to baseline extent, with an aim to achieve >75% cover through natural regeneration;
- Ensure tree and shrub cover remains at less than 10% within each 10 ha segment of the area
- Prohibit shrub and tree planting;
- Prohibit fertiliser application; and
- Pest management as part of broader PCS invertebrate pest programs, with monitoring for foxes, cats and rabbits already undertaken.

## 4.6 ESTABLISHMENT OF BASELINES AND TARGETS

The Offset Strategy commits to the maintenance and enhancement of SLL habitat quality and extent. Maintenance and enhancement of SLL habitat quality and extent would be achieved through management actions such as weed control and biomass management. This Offset Strategy provides an overview of baseline conditions of the proposed offset site. These preliminary baseline conditions, based on calculations of habitat quality, have been considered in setting performance targets. The Environmental Offsets Adaptive Management Strategy (EOAMS) (ACT Government 2021) adopts its own baselines and desired future habitat quality. As such, a new baseline assessment of habitat quality will be undertaken when PCS assumes land management responsibility. This would likely be derived from data collected in 2023, 2024 and 2025 at the West Kenny Offset site.

Baselines and targets would also be established for other thresholds, such as vegetation condition and weed presence. These thresholds and relevant methodologies would be defined in the OMP. As such, assessment of habitat quality would employ a quantitative and repeatable methodology to define triggers for management actions.

# 5.0 OFFSET ESTABLISHMENT AND MANAGEMENT

## 5.1 OFFSET RESPONSIBILITIES

The offset will be managed by the ACT Government's Offset Team, part of the PCS on the City and Environment Directorate (CED). The ACT Government's Offset Team is dedicated to managing, monitoring, and reporting on offsets established under the EPBC Act.

Reporting related to the impact area or development conditions must be undertaken by the approval holder.

The ACT Government submits, for each approval decision, an annual compliance report to the DCCEEW (formerly DAWE). Under EPBC 2020/8768 this will be required within 20 business days of the Annual Compliance Report period (ACR Period), which is annually on 15 August.

## 5.2 SITE SECURITY

The proposed offset site is currently mapped as Future Urban Areas within the Territory Plan-Overlay Zone. The Territory Plan defines zoning and land use within the ACT. The legal mechanism to secure the site in perpetuity as a Nature Reserve would be through the Major Plan Amendment (MPA) process. This process would be initiated by iCBR. As per the standard duration of a MPA, the estimated timeframe for legally securing the land would be 12-18 months. PCS would be responsible for land management, following the establishment of the site as a Nature Reserve. Following the life of the approval period (until 30 June 2052), the site would be incorporated in Canberra Nature Park to ensure protection in perpetuity.

A land custodian agreement from CED Parks and Conservation Service (dated 02/06/2023) for the use of block no. 739 Gungahlin as an offset for the Monaro Highway Project was provided for an offset area of 9.90 ha. Following revision of the proposed offset area by increasing it in size, an updated in-principle agreement (dated 25/06/2024) was provided to confirm that block no. 739 Gungahlin could still be used as an offset, with an increased area.

As per condition 7 of EPBC 2020/8768, TCCS must provide written evidence of the initiation of securement of all offset sites specified in the approved OMP before undertaking any clearing, construction or other physical activity associated with the Action outside of the Package 1C Early Works Boundary and provide written evidence of final securement within 18 months of the commencement of the Action. Written evidence of the initiation of securement is the submission of an application under the ACT *Planning Act 2023* to amend the ACT Territory Plan.

## 5.3 OFFSET MANAGEMENT PLAN

This offset strategy aims to refine the offset requirements of the Monaro Highway Project and determine the suitability of the West Kenny Offset site as a potential offset for the Monaro Highway Project, in accordance with Commonwealth and ACT Government Offset Policies. It provides background on activities to be undertaken to achieve the anticipated future outcomes with site management. The offset proposes to maintain the quality and extent of SLL habitat within the offset site and does not include any commitments relating to restoration. Activities to be undertaken on site would be further defined in consultation with the land manager to ensure consistency with existing procedures.

Condition 5 of EPBC 2020/8768 requires that the approval holder submit an Offset Management Plan (OMP) for the Minister's written approval. Condition 6 of EPBC 2020/8768 details the requirements of this OMP. An OMP would be prepared for the site, in consultation with the PCS Environmental Offsets Team, to specify management and monitoring activities to satisfy the approval conditions of EPBC 2020/8768.

# 6.0 ASSESSMENT OF SUITABILITY

12.2 ha of the site will be used as a direct offset for the 4.05 ha of SLL habitat directly impacted by Package 1C, representing the required 100% target for direct offsets described by the EPBC Offsets Policy. As such, the proposed offset is considered to be "*of a size and scale proportionate to the residual impacts on the protected matter".* A copy of the EPBC Offset Calculator is provided in Appendix D. The SLL habitat within the proposed offset site is of greater quality than that of the impact site, ensuring the proposed offset is representative of an "*overall conservation outcome that improves or maintains the viability"* of the SLL, listed as 'vulnerable' under the EPBC Act.

The direct offset site would provide a high value offset for the loss of SLL habitat as a result of the Monaro Highway Project.

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# APPENDICES

## Offset Strategy – Monaro Highway Project

# Appendix A – EPBC CONDITIONS OF APPROVAL

This section requires the tables to be recreated for accessibility. These table will be made as accessible as possible, though they technically do not comply with the WCAG requirements for table content.

Australian Government
Department of Climate Change, Energy, the Environment and Water

# Variation of conditions attached to approval

## Monaro Highway – Lanyon Drive Upgrade Package 1C, Hume, ACT (EPBC ref 2020/8768)

This decision to vary conditions of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

## Approved action

| | |
|---|---|
| **Approval holder** | Transport Canberra and City Services Directorate<br>ABN: 37 307 569 373 |
| **Approved action** | The upgrade of the Monaro Highway between David Warren Road (intersection with Monaro Highway) and Sheppard Street (intersection with Lanyon Drive), Hume, ACT. See EPBC Act referral 2020/8768 |

## Variation

| | |
|---|---|
| **variation of conditions attached to approval** | The variation is:<br>Delete conditions, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19 attached to the approval and substitute with the condition specified in the table below.<br>Add new conditions 20, 21, 22, 23 ,24, 25,26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39 and 40 specified in the table below.<br>Add new definitions of Annual Compliance Report period or ACR period, Audit period, Audit report, Commencement of the Action, Habitat quality, Harm, Independent auditor, Package 1C Early Works, Package 1C Early Works Boundary, Secure, securement or secured, SMART and Suitably qualified ecologist.<br>Delete and substitute with the definitions in the table below definitions of Business Day, Commence the Action or commencement of the Action, Completion data, Compliance records, Compliance report, Construction, Environmental Management Plan Guidelines, Environmental Offsets Policy, Incident, Independent audit, Plan, Sensitive ecological data, Shapefile, Site and Striped legless lizard habitat.<br>Revoke definition of Legally secure/ing/d and Suitably qualified person.<br>Delete Attachment A and Attachment B attached to the approval and add the new Attachment A, Attachment B and Attachment C specified in the table below. |
| **date of effect** | This variation has effect on the date this instrument is signed. |

## Person authorised to make decision

| | |
|---|---|
| **name and position** | Brendan Linton-Smith<br>Acting Branch Head<br>Environment Assessments (Vic and Tas) and Post Approvals |
| **signature** |  |
| **date of decision** | 14 August 2025 |

| **Date of decision** | **Conditions attached to approval** |
|---|---|
| **Part A – Conditions specific to the action** | |
| *As varied on the date this instrument was signed* | 1. To minimise impacts to the **Striped Legless Lizard**, the approval holder must not:<br>a. **clear** more than 4.05 hectares (ha) of **Striped Legless Lizard habitat** within the **site**; and<br>b. **clear** outside of the **site**. |
| As varied on the date this instrument was signed | 2. The approval holder must<br>a. submit a Construction Environmental Management Plan (CEMP) to the **department** for the **Minister's** approval to avoid and mitigate **harm** to **protected matters** within the **site**.<br>b. not **commence the Action** unless the **Minister** has approved the CEMP in writing.<br>c. must commence implementing the CEMP approved by the Minister prior to the **commencement of the Action**.<br>d. continue to implement the approved CEMP until the **completion of the Action**. |
| *As varied on the date this instrument was signed* | 3. By implementing the CEMP, the approval holder must achieve the following environment outcome:<br>a. Prevent any avoidable **harm** to **protected matters** and mitigate unavoidable and accidental **harm** to **protected matters**. |
| *As varied on the date this instrument was signed* | 4. The CEMP must be prepared by a suitably qualified ecologist. All commitments, including environmental outcomes, management measures, corrective measures, trigger values and performance indicators in the CEMP must be **SMART** and based on referenced or included evidence of effectiveness. The CEMP must be consistent with the **Environmental Management Plan Guidelines**, and must include:<br>a. details of the relevant **protected matters** and a reference to **EPBC Act** approval conditions to which the plan refers, |

| Date of decision | Conditions attached to approval |
|---|---|
| | b. a table of commitments made in the plan to achieve the environmental outcomes, and a reference to exactly where these commitments are detailed in the plan,<br>c. commitments capable of ensuring that the environmental outcomes are achieved,<br>d. management measures to avoid and mitigate **harm** to **Striped Legless Lizards**, including artificial lighting management and a relocation protocol to safely relocate any **Striped Legless Lizard** individual away from an area of clearing or construction by a **fauna spotter catcher**,<br>e. reporting and review mechanisms to demonstrate compliance with the commitments made in the plan,<br>f. an assessment of risks relating to achieving the environmental outcomes and risk management strategies and/or mitigation measures that will be applied to address identified risks,<br>g. impact avoidance, mitigation and/or repair measures, and the timing of those measures, and<br>h. a monitoring program, which must include:<br>i. performance indicators,<br>ii. triggers values for corrective measures,<br>iii. the timing and frequency of monitoring, ensuring monitoring is capable of detecting trigger values and changes in the performance indicators.<br>i. Details describing the **Package 1C Early Works** including**,**<br>i. a map, **shapefile** and details specifying:<br>(1) The location and extent of where **clearing** will be undertaken<br>(2) The location and extent of **Striped Legless Lizard habitat** and **Striped Legless Lizard** exclusion fencing to provide a minimum 5-meter buffer from **Striped Legless Lizard habitat**.<br>ii. details of sub plans to the CEMP that will be used to implement **Package IC Early Works**. |
| **Offset requirements** | |
| *As varied on the date this instrument was signed* | 5. To compensate for the residual significant impact on **Striped Legless Lizard**, the approval holder must submit to the **department** for approval by the **Minister** an Offset Management Plan (OMP). The approval holder must not undertake any **clearing**, **construction** or other physical activity associated with the Action outside of the **Package 1C Early Works Boundary** unless the OMP is approved in writing by the **Minister.** The approval holder must implement the approved OMP from the date of approval by the **Minister** and continue to implement the approved OMP at least until the expiry date of this approval. |

| Date of decision | Conditions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | 6. The OMP must meet the requirements of the **Environmental Offsets Policy** and the **Environmental Management Plan Guidelines** to the satisfaction of the **Minister**. All commitments, including environmental outcomes, management measures, corrective actions, trigger values and performance indicators in the OMP must be **SMART** and based on referenced or included evidence of effectiveness. The OMP must be prepared by a **suitably qualified ecologist** and must include:<br>a. detailed information on the residual impacts to **Striped Legless Lizard** that will be compensated for by the offset (comprising both the **securement** of all offset sites and the **habitat quality** improvements to be achieved at each offset site), including all areas of habitat, and the **habitat quality**, for **Striped Legless Lizard** at all locations impacted by the Action which the offset is to address,<br>b. the relevant **protected matters** and a reference to the **EPBC Act** approval conditions to which the OMP refers,<br>c. detailed information and a **shapefile** specifying the location, area and boundaries of each offset site,<br>d. detailed baseline information on the areas of the habitat, and the **habitat quality**, for **protected matters** at each offset site,<br>e. achievable offset outcomes, relevant to the conservation of **Striped Legless Lizard**, for each offset site and the timeframes in which they will be achieved,<br>f. a table summarising all commitments to achieve the offset outcomes for **protected matters** at each offset site and a reference to where each commitment is detailed in the OMP,<br>g. reporting and review mechanisms to inform the **department** annually regarding compliance with the implementation of management measures and the attainment and maintenance of the offset outcomes,<br>h. an assessment of risks to achieving each offset outcome and what risk management measures and/or strategies will be applied to address these,<br>i. a monitoring program, which must specify:<br>ii. measurable performance indicators and the timeframes for their achievement to gauge attainment of each offset outcome for the **protected matters**.<br>iii. trigger values for corrective actions, and<br>iv. the proposed timing (including season/time of day/frequency) methods and effort, and an explanation of how these will be effective for this purpose, of monitoring to detect trigger values, changes in the performance indicators and to gather evidence that effectively demonstrates actual progress towards, attainment of and maintenance of all offset outcomes for the protected matters,<br>i. corrective actions to be implemented to ensure all offset outcomes for the **protected matters** are achieved or maintained if trigger values are reached or performance indicators are not achieved in the specified timeframes,<br>j. references to related plans and conditions of approval,<br>k. how each offset site will be protected, including **securement**, and all offset outcomes maintained or improved, at least until the expiry of the approval. |

| Date of decision | Conditions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | 7. To compensate for the residual impacts of the Action on **Striped Legless Lizard**, the approval holder must provide written evidence of the initiation of **securement** of all offset sites specified in the approved OMP before undertaking any **clearing**, **construction** or other physical activity associated with the Action outside of the **Package 1C Early Works Boundary** and provide written evidence of final **securement** within 18 months of the **commencement of the Action**. |
| *As varied on the date this instrument was signed* | 8. The approval holder must achieve all offset outcomes for each offset site specified in the approved OMP by the time specified in the OMP. Once achieved, the approval holder must maintain or exceed the offset outcomes at least until the expiry date of this approval. From the date of approval of the OMP the approval holder must:<br>a. have each offset site assessed annually by **a suitably qualified ecologist** to determine if the offset outcomes specified in the OMP have been achieved<br>b. submit to the **department** a report prepared by a **suitably qualified ecologist** detailing the presence of **Striped Legless Lizard** and **habitat quality** of and their habitat within each offset site within 20 business days after each **ACR period**, and<br>c. notify the **department** in writing of any offset outcomes that has not been achieved at all offset sites and the likely reasons that this/these offset outcomes have not been met. |
| **Part B – Standard administrative conditions Revision of action management plans** | |
| *As varied on the date this instrument was signed* | 9. The approval holder may, at any time, apply to the **Minister** for a variation to an action management plan approved by the **Minister** by submitting an application in accordance with the requirements of section 143A of the **EPBC Act**. If the **Minister** approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of any previous version of the action management plan. |
| **Notification of date of commencement of the action** | |
| *As varied on the date this instrument was signed* | 10. The approval holder must notify the **department** electronically, within 5 **business days** of the date of:<br>a. commencement of the Action, following commencement of the Action.<br>b. Undertaking the first instance of any on-site **clearing**, **construction** or other physical activity associated with the Action outside of the **Package 1C Early Works Boundary.** |

| Date of decision | Conditions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | 11. The approval holder must not **commence the Action** later than 15 March 2027. |
| **Compliance records** | |
| *As varied on the date this instrument was signed* | 12. The approval holder must maintain accurate and complete **compliance records** and document the procedure for recording and storing **compliance records**. |
| *As varied on the date this instrument was signed* | 13. If the **department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **department** within the timeframe specified in the request.<br>**Note: Compliance records** may be subject to audit by the **department**, or by an **independent auditor** in accordance with section 458 of the **EPBC Act**, and/or be used to verify compliance with the conditions. Summaries of the results of an audit may be published on the **department's** website or through the general media. |
| **Submission and publication of plans** | |
| *As varied on the date this instrument was signed* | 14. Wherever these conditions require the approval holder to submit any **plan** to the **department**, all such **plans** must be submitted to the **department** electronically. |
| *As varied on the date this instrument was signed* | 15. Unless otherwise agreed to in writing by the **Minister**, the approval holder must publish each **plan** on the **website** within 15 **business days** of the date:<br>a. the **plan** is approved by the **Minister** in writing, if the **plan** requires the approval of the **Minister**,<br>b. the **plan** is submitted to the **department** in accordance with a requirement of these conditions, if the **plan** does not require the approval of the **Minister**. |
| *As varied on the date this instrument was signed* | 16. The approval holder must keep all **plans** published on the **website**, in a format that is easily accessible and downloadable, from the first date which that **plan** must be published and until the expiry date of this approval. This requirement applies to all current and superseded versions of **plans**. |
| *As varied on the date this instrument was signed* | 17. The approval holder is required to exclude or redact **sensitive ecological data** from any version of a **plan** before that **plan** is published on the **website** or otherwise provided to a member of the public. If **sensitive ecological data** is excluded or redacted from a **plan**, the approval holder must notify the **department** in writing what exclusions and redactions have been made in the version published on the **website**. |

| Date of decision | Conditions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | 18. The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the *Guidelines for biological survey and mapped data*, Commonwealth of Australia 2018, or as otherwise specified by the **Minister** in writing. |
| *As varied on the date this instrument was signed* | 19. The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the *Guide to providing maps and boundary data for EPBC Act projects*, Commonwealth of Australia 2021, or as otherwise specified by the **Minister** in writing. |
| *As varied on the date this instrument was signed* | 20. The approval holder must submit all **monitoring data** (including **sensitive ecological data**), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the **department** within 20 **business days** following the end each **ACR period** except where otherwise specified in a **plan**. |
| ***Annual compliance reporting*** | |
| *As varied on the date this instrument was signed* | 21. The approval holder must prepare a **compliance report** for each **Annual Compliance Report period** (**ACR period**). |
| *As varied on the date this instrument was signed* | 22. The approval holder must ensure each **compliance report** includes:<br>a. accurate and complete details of compliance and any non-compliance with:<br>i. each condition attached to this approval decision, and<br>ii. all commitments made in each **plan**,<br>b. a schedule of all **plans** in effect in relation to these conditions during the **ACR period**,<br>c. accurate and complete details of how each **plan** was implemented during the **ACR period**, and<br>d. if any **incident** occurred, accurate and complete details of each **incident**. |
| *As varied on the date this instrument was signed* | 23. The approval holder must ensure each **compliance report** is completed to the satisfaction of the **Minister** and is consistent with the *Annual Compliance Report Guidelines*, Commonwealth of Australia 2023. |
| *As varied on the date this instrument was signed* | 24. The approval holder must, within 20 **business days** following the end each **ACR period**, in a format that is easily accessible and downloadable, publish on the **website**:<br>a. each compliance report, and<br>b. a shapefile showing all clearing of protected matters, and their habitat, undertaken within the ACR period. |

| Date of decision | Conditions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | 25. The approval holder must:<br>a. Exclude or redact **sensitive ecological data** from each **compliance report** and **shapefile** published on the **website** or otherwise provided to a member of the public.<br>b. If **sensitive ecological data** is excluded or redacted from a version of a **compliance report** published or otherwise provided to a member of the public, submit the full **compliance report** to the **department** within 5 **business days** of its publication on the **website** and notify the **department** in writing what exclusions and redactions have been made in the version published on the **website** or otherwise provided to a member of the public.<br>c. If **sensitive ecological data** is excluded or redacted from a version of a **shapefile** published or otherwise provided to a member of the public, submit the full **shapefile** to the **department** within 5 **business days** of its publication on the **website** and notify the **department** in writing what exclusions and redactions have been made in the version published on the **website** or otherwise provided to a member of the public. |
| *As varied on the date this instrument was signed* | 26. The approval holder must notify the **department** electronically, within 5 **business days** of each date of publication that the **compliance report** has been published on the **website**. In this notification, the approval holder must provide the **department** with the web address for where the **compliance report** and related **shapefile** are published on the **website**. |
| *As varied on the date this instrument was signed* | 27. The approval holder must keep each **compliance report** and related **shapefile** published on the **website** from the first date which that **compliance report** must be published and until the expiry date of this approval.<br>**Note: Compliance reports** may be published on the **department's** website. |
| **Reporting non-compliance** | |
| *As varied on the date this instrument was signed* | 28. The approval holder must notify the **department** electronically, within 2 **business days** of becoming aware of any **incident**. The approval holder must specify in each notification:<br>a. any condition or commitment made in a **plan** which has been or may have been not complied with,<br>b. a short description of the **incident**, and<br>c. the location (if applicable, including co-ordinates), date and time of the **incident**. |
| *As varied on the date this instrument was signed* | 29. The approval holder must provide to the **department** in writing, within 12 **business days** of becoming aware of an **incident**, the details of that **incident**. The approval holder must specify:<br>a. all corrective measures and investigations which the approval holder has already taken in respect of the **incident**,<br>b. the potential impacts of the **incident**,<br>c. the method and timing of any corrective measures that the approval holder proposes to undertake to address the **incident**, and<br>d. any variation of these conditions or revision of a plan that will be required to prevent recurrence of the **incident** and/or to address its consequences. |

| Date of decision | Conditions attached to approval |
|---|---|
| **Independent audit** | |
| *As varied on the date this instrument was signed* | 30. The approval holder must ensure that an **independent audit** of compliance with the conditions is conducted for every **audit period**. |
| *As varied on the date this instrument was signed* | 31. The approval holder must submit details of the proposed **independent auditor** and their qualifications to the **department** within 10 **business days** following the end of each **audit period**. |
| *As varied on the date this instrument was signed* | 32. The approval holder must ensure the scope of each **independent audit** is sufficient to determine the compliance status for each condition of approval, and each commitment made in each **plan**. |
| *As varied on the date this instrument was signed* | 33. The approval holder must ensure the criteria for each **independent audit** and the undertaking of each independent audit are consistent with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019. |
| *As varied on the date this instrument was signed* | 34. The approval holder must submit an **audit report** to the **department** for written agreement from the **department** within 3 months following the end of each **audit period**, or as otherwise directed by the **Minister** in writing. |
| *As varied on the date this instrument was signed* | 35. The approval holder must ensure each **audit report** is completed to the satisfaction of the **Minister** and is consistent with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019. |
| *As varied on the date this instrument was signed* | 36. The approval holder must publish each **audit report** on the **website**, in a format that is easily accessible and downloadable, within 10 **business days** of the date of the **department** agrees to the **audit report** in writing. |
| *As varied on the date this instrument was signed* | 37. The approval holder must notify the **department** within 5 **business days** of the date the **audit report** is published on the **website**. In this notification, the approval holder must provide the **department** with the web address for where the **audit report** is published on the **website**. |

| Date of decision | Conditions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | 38. The approval holder must keep each **audit report** published on the **website** from the first date which that **audit report** must be published and until the expiry date of this approval. |
| **Completion of the action** | |
| *As varied on the date this instrument was signed* | 39. Within 20 **business days** after the **completion of the Action**, and, in any event, at least 20 **business days** before this approval expires, the approval holder must notify the **department** electronically of the date of **completion of the Action** and provide **completion data**. The approval holder must submit any spatial data that comprises **completion data** as a **shapefile**. |
| *As varied on the date this instrument was signed* | 40. The approval holder must notify the **department** electronically 60 **business days** prior to the expiry date of this approval, that the approval is due to expire.<br>**Note:** Section 145C of the **EPBC Act** entitles the approval holder to request an extension to the period of effect of this approval. |

**Part C - Definitions**

| Date of decision | Definitions attached to approval |
|---|---|
| In these conditions, except where contrary intention is expressed, the following definitions are used: | |
| *As varied on the date this instrument was signed* | **Annual Compliance Report period** or **ACR period** means each subsequent 12-month period following the date of this approval decision until the expiry date of this approval, unless otherwise specified in writing by the **Minister**. |
| *As varied on the date this instrument was signed* | **Audit period** means each subsequent three-year period following the **commencement of the Action** until the expiry date of this approval unless otherwise specified in writing by the **Minister**. |
| *As varied on the date this instrument was signed* | **Audit report** means a written report of an **independent audit**. |
| *As varied on the date this instrument was signed* | **Business day** means a day that is not a Saturday, a Sunday or a public holiday in the ACT. |
| *Original dated 15/03/2022* | **Clear/Clearing** means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting or burning of vegetation. |
| *As varied on the date this instrument was signed* | **Commence the Action** or **commencement of the Action** means the first instance of any on-**site clearing**, **construction** or other physical activity associated with the Action. |

| Date of decision | Definitions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | **Commencement of the Action** means the date on which the approval holder **commences the Action**. |
| *As varied on the date this instrument was signed* | **Completion data** means an environmental report and spatial data clearly detailing how the conditions of this approval have been met. |
| *As varied on the date this instrument was signed* | **Completion of the Action** means the date on which all activities associated with the approved Action have permanently ceased and/or been completed. |
| *As varied on the date this instrument was signed* | **Compliance records** means all documentation or other material in whatever form required to demonstrate compliance with these conditions of approval (including compliance with commitments made in **plans**) in the approval holder's possession, or that are within the approval holder's power to obtain lawfully. |
| *As varied on the date this instrument was signed* | **Compliance report** means a written report of compliance with, and fulfilment of, these conditions (including compliance with commitments made in **plans**). |
| *As varied on the date this instrument was signed* | **Construction** means:<br>• the erection of a building or structure that is, or is to be, fixed to the ground and wholly or partially fabricated on-site,<br>• the alteration, maintenance, repair or demolition of any building or structure,<br>• any work which involves breaking of the ground (including pile driving) or bulk earthworks,<br>• the laying of pipes and other prefabricated materials in the ground, and<br>• any associated excavation work. |
| *Original dated 15/03/2022* | **Department** means the Australian Government agency responsible for administering the **EPBC Act**. |
| *As varied on the date this instrument was signed* | **Environmental Management Plan Guidelines** means the *Environmental Management Plan Guidelines*, Commonwealth of Australia 2024. |
| *Original dated 15/03/2022* | **EPBC Act** means the *Environment Protection and Biodiversity Conservation Act 1999* (Cth). |
| *As varied on the date this instrument was signed* | **Environmental Offsets Policy** means the *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy*, Commonwealth of Australia 2012. |

| Date of decision | Definitions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | **Habitat quality** means a measure of the overall viability of a site and its capacity to support **protected matters**, with respect to site condition, site context and species stocking rate and/or composition. |
| *As varied on the date this instrument was signed* | **Harm** means to cause any measurable direct or indirect disturbance or deleterious change as a result of any activity associated with the Action. |
| *As varied on the date this instrument was signed* | **Incident** means any:<br>• event which has the potential to, or does, **harm** any **protected matter**,<br>• potential non-compliance with these conditions, including the administrative requirements,<br>• actual non-compliance with these conditions, including the administrative requirements,<br>• potential non-compliance with one or more commitment made in a **plan**, and/or<br>• actual non-compliance with one or more commitment made in a **plan** |
| *As varied on the date this instrument was signed* | **Independent audit** means an audit, conducted by an **independent auditor**, of compliance with and fulfilment of these conditions and the commitments made in plans, objectively evaluated against the audit criteria developed by the independent auditor, in accordance with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019. |
| *As varied on the date this instrument was signed* | **Independent auditor** means a person, or firm, who:<br>• does not have any individual, financial*, employment* or family affiliation or any conflicting interests with the Action, the approval holder or the approval holder's staff, representatives, or associated persons,<br>• has demonstrated experience in undertaking government-regulated environmental compliance audits, and<br>• holds relevant professional qualifications and accreditations.<br>*Other than for the purpose of undertaking the role for which an independent person, or firm, is required. |
| *Original dated 15/03/2022* | **Minister** means the Australian Government Minister administering the **EPBC Act** including any delegate thereof. |
| *Original dated 15/03/2022* | **Monitoring data** means the data required to be recorded under the conditions of this approval. |
| *As varied on the date this instrument was signed* | **Package 1C Early Works** means any on-**site clearing**, **construction** or other physical activity associated with the Action located within the **Package 1C Early Works Boundary.** |
| *As varied on the date this instrument was signed* | **Package 1C Early Works Boundary** means the area enclosed by the dashed green line designated '1C Early Works' represented in Attachments A, B and C. |

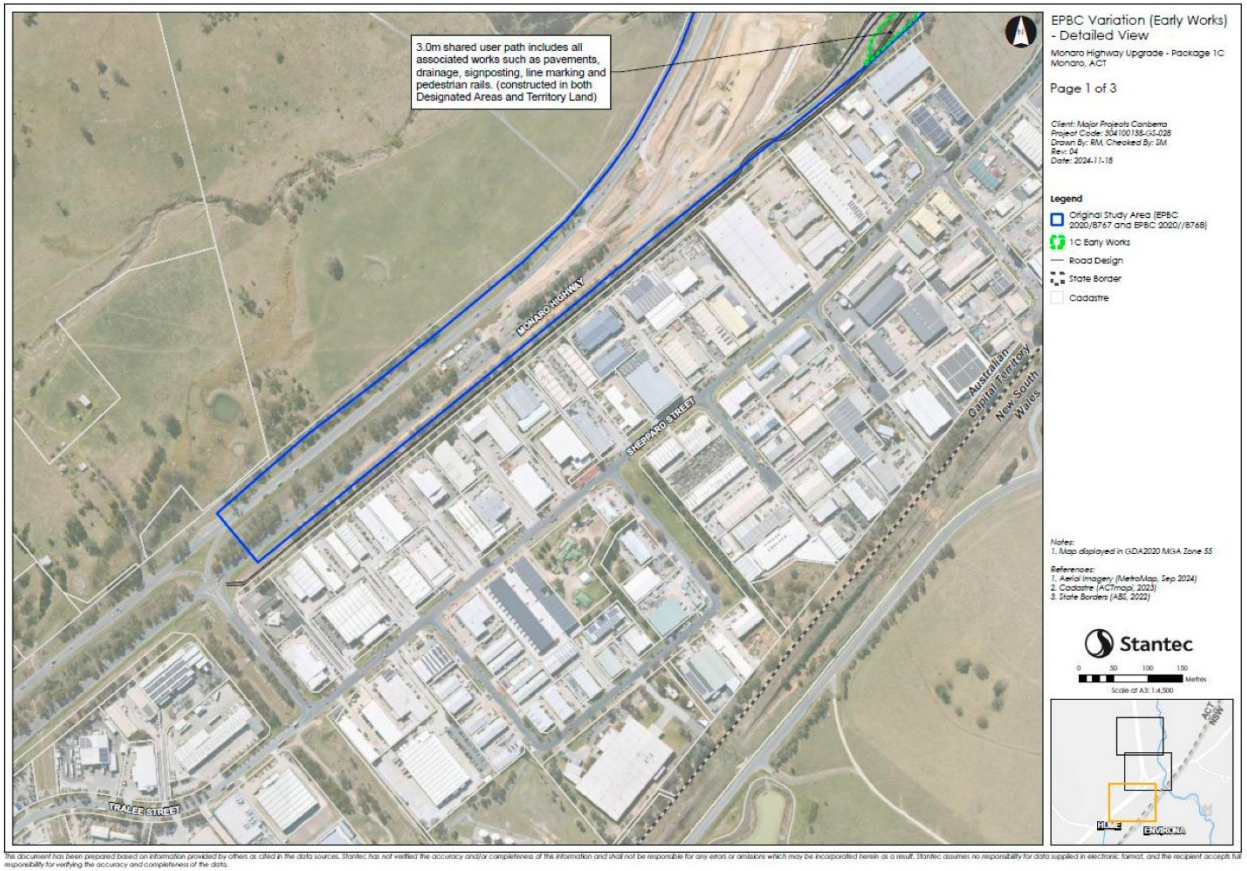
| Date of decision | Definitions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | **Plan** means any action management plan or strategy that the approval holder is required by these conditions to implement. |
| *Original dated 15/03/2022* | **Protected matter(s)** means a matter protected under a controlling provision in Part 3 of the **EPBC Act** for which this approval has effect. |
| *As varied on the date this instrument was signed* | **Secure**, **securement** or **secured** means to provide conservation protection on the title of land in perpetuity through a legal mechanism that establishes either a nature reserve overlay under the ACT Territory Plan (ACT) and incorporates the offset in to the Canberra Nature Park, or another enduring protection mechanism agreed to in writing by the department, to provide protection for the site against development incompatible with conservation. Where the legal mechanism of securement is a nature reserve overlay under the ACT Territory Plan, evidence of the initiation of securement is the submission of an application under the *ACT Planning Act 2023* to amend the ACT Territory Plan. |
| *As varied on the date this instrument was signed* | **Sensitive ecological data** means data as defined in the *Sensitive Ecological Data – Access and Management Policy v1.0*, Commonwealth of Australia 2016. |
| *As varied on the date this instrument was signed* | **Shapefile** means location and attribute information about the Action provided in an Esri shapefile format containing<br>• '.shp', '.shx', '.dbf' files,<br>• a '.prj' file which specifies the projection or geographic coordinate system used, and<br>• an '.xml' metadata file that describes the shapefile for discovery and identification purposes. |
| *As varied on the date this instrument was signed* | **Site** means the location of the Action, represented in Attachments A, B and C by<br>• the area enclosed by the dark blue line designated 'Original Study Area (EPBC 2020/8767 and EPBC 2020//8768)'; and<br>• The area shown in magenta designated 'EPBC Additional Amended SLL Impact (0.85 ha)'. |
| *As varied on the date this instrument was signed* | **SMART** means specific, measurable, achievable, relevant and time bound. |
| *Original dated 15/03/2022* | **Striped Legless Lizard** means the **EPBC Act** listed threatened species *Delma impar*. |
| *As varied on the date this instrument was signed* | **Striped Legless Lizard habitat** means the areas within the **Site** represented in Attachment B by<br>• The area labelled as 'EPBC Approved SLL Impact (3.20 ha)'<br>• The area labelled as 'EPBC Additional Amended SLL Impact (0.85 ha)' |
| *As varied on the date this instrument was signed* | **Suitably qualified ecologist** (for the purpose of preparing the implementing environmental management plans) means a person who has relevant professional qualifications and:<br>• at least 3 years of work experience writing and implementing management plans for the habitat of **protected matters**, |

| Date of decision | Definitions attached to approval |
|---|---|
| | • has implemented and reported on management plans for the habitat of **protected matters**, and can demonstrate the implementation of those plans achieved the desired **habitat quality** for habitat of **protected matters**, and<br>• can give authoritative assessment and advice on offset management to improve the **habitat quality** of the habitat of **protected matters** using relevant protocols, standards, methods and/or literature. |
| *Original dated 15/03/2022* | **Website** means a set of related web pages located under a single domain name attributed to the approval holder and available to the public. |

Australian Government

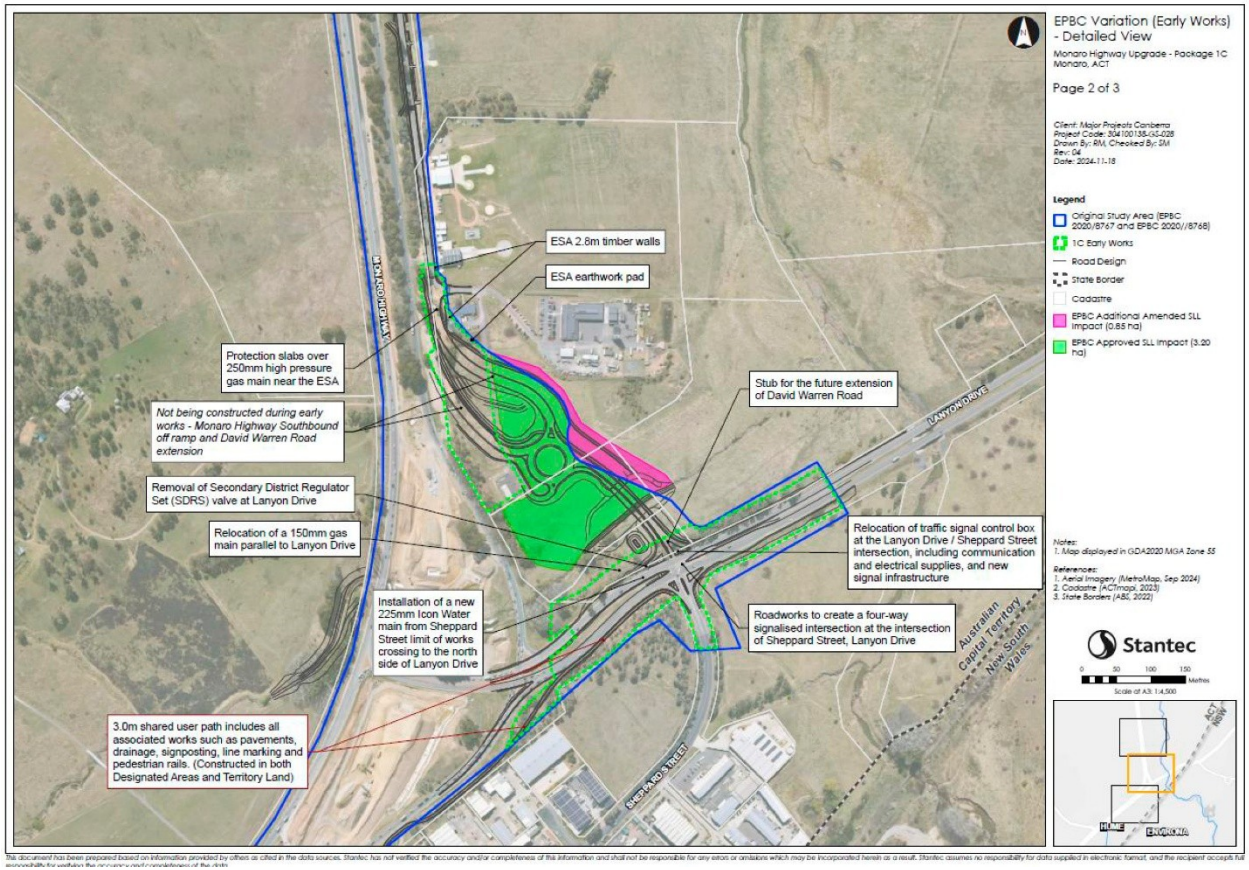
Department of Climate Change, Energy, the Environment and Water

| Date of decision | Annexure A |
|---|---|
| As varied on the date this instrument was signed | **Attachment A**: Map of the **Site** page 1 of 3 |

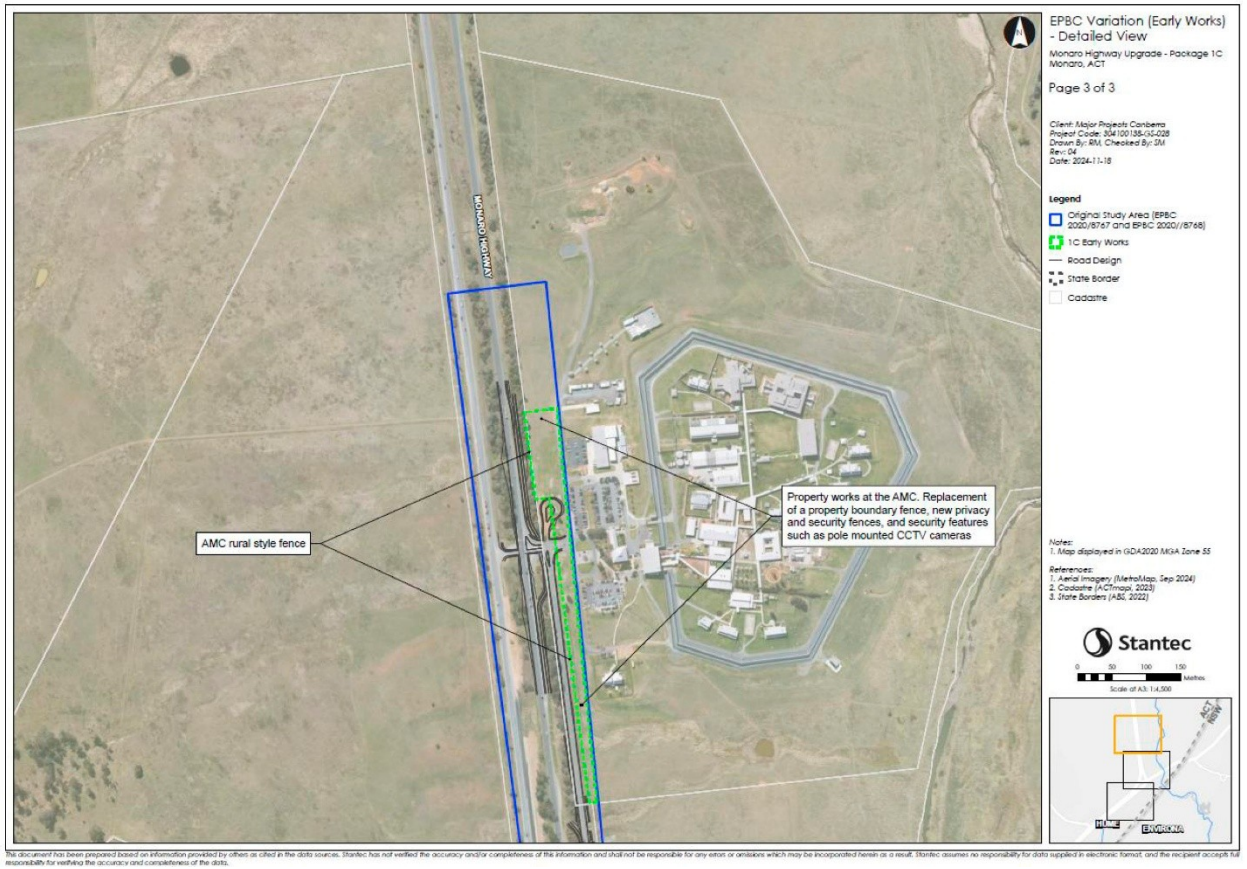



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| Date of decision | Annexure A |
|---|---|
| As varied on the date this instrument was signed | **Attachment B**: Map of the **Site** page 2 of 3 |



| Date of decision | Annexure A |
|---|---|
| As varied on the date this instrument was signed | **Attachment C**: Map of the **Site** page 3 of 3 |




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# Appendix B – TARGETED SURVEY REPORT



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PREPARED FOR

**MAJOR PROJECTS CANBERRA**

# Striped Legless Lizard Targeted Survey Report – Monaro Highway Project

DATE 26/05/2022

304100138

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|---|---|---|---|---|
| A | 23/05/2022 | Initial Draft for Client Review | AM | MV |
| B | 26/05/2022 | Addressed Client Comments | MV | |
| | | | | |

## EXECUTIVE SUMMARY


### *Introduction*

Major Projects Canberra, on behalf of ACT Government is seeking to deliver a suite of road upgrades at, and near to, the intersection of Monaro Highway and Lanyon Drive, Hume (the Monaro Highway Project). Approval for the upgrade is subject to the conditions of approval for EPBC referral 2020/8768, relating to significant impacts on the Striped Legless Lizard (SLL; *Delma impar*), including offset requirements.

Cardno, now Stantec has been engaged to undertake targeted surveys for SLL at a potential offset site (the site) for the Monaro Highway Project as part of the preliminary investigations into suitable offset sites. The SLL is listed as Vulnerable under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Nature Conservation Act 2014* (NC Act).

The proposed offset site consists of approximately 22ha of land located in unreserved land at Gungahlin (registered rural block no. 739), immediately to the west of Nadjung Mada Nature Reserve in Kenny, ACT.

### *Methodology*

The targeted surveys were conducted in accordance with the *Environment Protection and Biodiversity Conservation Act 1999 referral guidelines for the vulnerable striped legless lizard, Delma impar* (Commonwealth Guidelines) (DSEWPC 2011a) and the *Survey Guidelines for the Striped Legless Lizard* (ACT Guidelines) (ACT Government 2011).

Surveys were conducted over a 10-week period from 10 March 2022 to 13 May 2022.

Monitoring was completed under Scientific License number LT20223, issued by the ACT Government.

### *Results*

A total of six (6) SLL were detected over the 10-week monitoring period. All 6 SLL were located in the southwestern portion of the site. General habitat observations across the site indicated a high cover of Phalaris/Canary Grass (*Phalaris* sp.), a tusk-forming exotic species that provides potential habitat for SLL.

### *Conclusions and Recommendations*

SLL presence was confirmed within the site and could be regarded as providing critical habitat for SLL.

Based on the location of the individuals recorded and actual site conditions, the southern section of the Study Area could be considered as adequate Offset site. The recommended Offset site is ~9.90ha, which is adequate to meet the Offset requirement of a minimum of 6.1ha.

## GLOSSARY AND ABBREVIATIONS

| Term | Definition |
|---|---|
| **ACT** | Australian Capital Territory |
| **ACT Guidelines** | The *Survey Guidelines for the Striped Legless Lizard* (ACT Guidelines) (ACT Government 2011) |
| **BoM** | Bureau of Meteorology |
| **Cardno** | Cardno, now Stantec |
| **Commonwealth Guidelines** | The *Environment Protection and Biodiversity Conservation Act 1999 referral guidelines for the vulnerable striped legless lizard, Delma impar* (Commonwealth Guidelines) (DSEWPC 2011) |
| **EPBC Act** | *Environment Protection and Biodiversity Conservation Act 1999.* |
| **EPSDD** | *Environment, Planning and Sustainable Development Directorate* |
| **NC Act** | *Nature Conservation Act 2014.* |
| **Site** | The proposed offset site located within registered rural block no. 739 in Gungahlin, ACT. |
| **SLL** | Striped Legless Lizard |
| **The Monaro Highway Project** | Proposed road upgrades at, and near to, the intersection of Monaro Highway and Lanyon Drive, Hume. |
| **TSSC** | Threatened Species Scientific Committee |

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# 1 Introduction

The ACT Government is seeking to deliver a suite of road upgrades at, and near to, the intersection of Monaro Highway and Lanyon Drive, Hume (the Monaro Highway Project). Due to the occurrence of known a known important population of Striped Legless Lizards (SLL; *Delma* impar) in the Jerrabomberra East Grassland Nature Reserve, located to the east of the project area, the proposed action[6] was referred for assessment and approval under the *Environment Protection and Biodiversity Conservation Act (EPBC Act)* (EPBC Act referral 2020/8768). As per the conditions of approval for EPBC Act referral 2020/8768, the approval holder must compensate for residual impacts to SLL through suitable offsets.

Major Projects Canberra, on behalf of ACT Government, have engaged Cardno, now Stantec (Cardno) to undertake targeted surveys for SLL at a potential offset site (the site) for the Project as part of the preliminary investigations into suitable offset sites. The targeted surveys were conducted to confirm the occurrence of SLL at the site and further investigation is required to determine the suitability of the site to offset the residual impacts of the proposed action.

Surveys were undertaken broadly in accordance with the Commonwealth EPBC Act Policy Statement - *Environment Protection and Biodiversity Conservation Act 1999 referral guidelines for the vulnerable striped legless lizard, Delma impar* (Commonwealth Guidelines) (DSEWPC 2011a) and the *Survey Guidelines for the Striped Legless Lizard* (ACT Guidelines) (ACT Government 2011).

## 1.1. Purpose

The purpose of this study was to undertake targeted surveys for Striped Legless Lizard (SLL) at a potential offset site (the site) for the Monaro Highway Project. Targeted surveys were undertaken to confirm the presence of SLL within the site and provide information to assist in determining the suitability of the site as an offset location for the potential loss of species habitat associated with the proposed upgrades of the intersection of Monaro Highway and Lanyon Drive, Hume. This report provides a summary of the approach (survey methods, effort, location and timing) and results of targeted surveys undertaken at the site in late Summer/ Autumn 2022.

## 1.2. Description of the Site

The site consists of approximately 22ha of land located in unreserved land at Gungahlin (registered rural block no. 739), immediately to the west of Nadjung Mada Nature Reserve in Kenny, ACT **(Figure 1-1).**

[6] Upgrade of the Monaro Highway between David Warren Road (intersection with Monaro Highway) and Sheppard Street (intersection with Lanyon Drive), Hume, ACT

*Figure 1-1 Location of the potential offset site (the site)*



Registered rural block no. 739 has an undulating relief, with a small hill positioned on the central portion of the land. The land has previously been subject to grazing and the vegetation is currently dominated by exotic grasslands with remnant native trees (see **Plate 1** and **Plate 2**). Occasional rocky outcrops occur across the site. The area has been mapped as SLL habitat (ACTmapi 2022) and previous records of SLL occur within the site and in the adjacent lands (EPSDD 2021; **Figure 1-2**).



*Plate 1 Typical landscape observed across the site*



*Plate 2 Typical landscape observed across the site*

*Figure 1-2 Previous records of SLL within the locality (provided by EPSDD 2021)*



# 2 Species Description

## 2.1. Conservation Status

The SLL is listed as Vulnerable under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). It is currently under listing assessment to be upgraded to Threatened (assessment due 30 April 2023). Under ACT legislation, the species is listed as Vulnerable (*Nature Conservation Act 2014*). Significant impact guidelines have also been published by the Commonwealth Government for this species (DSEWPC 2011a).

## 2.2. Characteristics

The SLL is a member of the Pygopodidae family (the legless or flap-footed lizards), lacking forelimbs and having reduced hind limbs which exist as small flaps on either side of the vent. SLL are pale-grey in colour, with dark-brown to black stripes, that extend from the neck to the tail, and a whitish underside. The head of a SLL is generally darker than the body. The species reaches up to 30cm in length and has a long, thin body and a tail that is twice the length of the body. The maximum snout vent length of the species is approximately 12cm. SLL can be distinguished from snakes by the presence of external ear openings, an undivided tongue, and a tail longer than the body. Their body colouration, size and head scale pattern differ from that of other legless lizards (DAWE 2022).

## 2.3. Habitat

The SLL is a grassland specialist, occurring in area of native grassland, nearby grassy woodland and exotic pasture. Primary habitat for the species consists of four nationally threatened ecological communities including Natural Temperate Grassland of the Victorian Volcanic Plain, Grassy Eucalypt Woodland of the Victorian Volcanic Plain, Natural Temperate Grassland of the South Eastern Highlands, and White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (DAWE 2022).

In the ACT, the SLL has mostly been reported from areas of relatively undisturbed native grasslands, with a dense cover of perennial tussock grasses, particularly Spear Grass (*Stipa bigeniculata)* and Kangaroo Grass (*Themeda triandra)*. The introduced *Phalaris aquatica* may provide temporary habitat for the species (DAWE 2022). SLL in the ACT region commonly use grass tussocks and burrows for shelter.

## 2.4. Distribution

The SLL was previously distributed throughout temperate lowland grasslands in the ACT, the south-western slopes and southern tablelands of New South Wales, central and southern Victoria, and the south-eastern corner of South Australia. The species has experienced declines in distribution due to habitat fragmentation. The formerly continuous distribution in the ACT has been reduced to four discrete areas: Gungahlin, the lower Majura Valley, the lower Jerrabomberra Valley and Yarramundi Reach (DAWE 2022).

# 3 Methodology

Surveys were undertaken broadly in accordance with the Commonwealth EPBC Act Policy Statement - *Environment Protection and Biodiversity Conservation Act 1999 referral guidelines for the vulnerable striped legless lizard, Delma impar* (Commonwealth Guidelines) (DSEWPC 2011a) and the *Survey Guidelines for the Striped Legless Lizard* (ACT Guidelines) (ACT Government 2011). Monitoring was completed under scientific license number LT20223, issued by the ACT Government.

## 3.1. Survey Setup

The Commonwealth Guidelines (DSEWPC 2011a) require one array (tile grid) per 3ha for sites up to 30ha. Potential habitat at the site amounts to 22ha, and therefore a total of seven (7) tile grids were deployed across the proposed offset site. The deployment of tile grids was undertaken between 11 and 16 February 2022. The tile grids were set up in grassland and were positioned as close as possible to naturally occurring rocks and/or rocky outcrops. The locations of the tile grids are provided in Table 3-1 and Figure 3-1. Each grid was comprised of 50 artificial shelters (roof tiles, hereafter referred to as tiles) arranged in five rows of ten, with each tile spaced 5m apart (see **Appendix A)**.

*Table 3-1 Tile Grid Locations*

| Tile Grid | SW Corner | | Tile Reference (SW Corner) | NE Corner | | Tile Reference (NE Corner) |
|---|---|---|---|---|---|---|
| | Easting | Northing | | Easting | Northing | |
| **1** | 695733.7 | 6101392 | 1.A.1 | 695756.8 | 6101443 | 1.E.10 |
| **2** | 695774.7 | 6100898 | 2.A.1 | 695821.3 | 6100885 | 2.E.10 |
| **3** | 695700.6 | 6100779 | 3.A.1 | 695732.3 | 6100805 | 3.E.10 |
| **4** | 695795.5 | 6100702 | 4.A.1 | 695813 | 6100758 | 4.E.10 |
| **5** | 695540.9 | 6100645 | 5.A.1 | 695531.9 | 6100685 | 5.E.10 |
| **6** | 695610.3 | 6100630 | 6.A.1 | 695643.7 | 6100668 | 6.E.10 |
| **7** | 695741.3 | 6100630 | 7.A.1 | 695719.8 | 6100678 | 7.E.10 |
| *The tile reference is formatted as Grid.Row.Column. For example, 1.A.1 refers to the 1st tile row A of tile grid 1 (see **Appendix A**.) | | | | | | |

*Figure 3-1 Tile Grid Locations*



At the time of set up and monitoring, the grass was up to 1.2m in height. As per the recommendations of ACT Parks and Conservation Services officers, the tiles were set up without any modification of existing habitat.

## 3.2. Targeted Surveys

The targeted surveys were conducted in accordance with the Commonwealth Guidelines (DSEWPC 2011a), which include the following requirements:

- Surveys should target suitable habitat within the site;
- Field surveys for the species should be undertaken during the active period of the species (between September and early May; and
- Shelter sites should be checked when ambient temperatures do not exceed 28oC.

As per the *Survey Guidelines for the Striped Legless Lizard* (ACT Government 2011), the tile grids were surveyed for a period of 10 weeks. Following a 2-3 week 'settling in' period, each tile was checked once a week, as frequent checks may lead to SLL abandoning the artificial shelters. Checks were conducted on a weekly basis, ensuring at least 5 days were allowed between checks. The survey dates are provided in **Table 3-2.**

*Table 3-2 Survey Dates*

| Survey | Date |
|---|---|
| Week 1 of 10 | 10 March 2022 |
| Week 2 of 10 | 18 March 2022 |
| Week 3 of 10 | 25 March 2022 |
| Week 4 of 10 | 31 March 2022 |
| Week 5 of 10 | 8 April 2022 |
| Week 6 of 10 | 13 April 2022 |
| Week 7 of 10 | 21 April 2022 |
| Week 8 of 10 | 28 April 2022 |
| Week 9 of 10 | 5 May 2022 |
| Week 10 of 10 | 13 May 2022 |

As per advice from ACT Parks and Conservation Services officers, to avoid any distress to the species that may be caused by handling, any individuals detected were not handled and only photographic records of the species were collected.

The identification of SLL detected were verified by ACT Parks and Conservation Services officers.

## 3.3. Site Characteristics and Habitat

General notes on suitable site characteristics were taken during targeted surveys. Observations of the following site characteristics were noted:

- Estimated vegetation cover (native and exotic)
- Presence of rock and bare ground
- Dominant flora species
- Grazing pressure

A summary of observations is provided in **Section 4.3.**

# 4 Results

## 4.1. Survey Conditions

The survey conditions for the targeted surveys are provided in Table 4-1.

*Table 4-1 Survey Conditions (BoM 2022)*

| Date | Minimum temperature (°C) | Maximum temperature (°C) | Other observations | Number of SLL detected |
|---|---|---|---|---|
| 10/03/2022 | 11.3 | 21.0 | None. | 2 |
| 18/03/2022 | 11.0 | 27.6 | None. | 2 |
| 25/03/2022 | 10.6 | 22.2 | None. | 1 |
| 31/03/2022 | 9.2 | 21.0 | None. | 0 |
| 8/04/2022 | 11.8 | 17.7 | Light rainfall experienced during survey. | 0 |
| 13/04/2022 | 9.5 | 20.3 | None. | 0 |
| 21/04/2022 | 4.8 | 20.2 | 33.4mm rainfall on day prior to survey. | 1 |
| 28/04/2022 | 13.5 | 19.0 | Light rainfall experienced during survey. | 0 |
| 5/05/2022 | 8.9 | 17.2 | None. | 0 |
| 13/05/2022 | 13.3 | 20.9 | 18.2mm rainfall on day prior to survey. Light rainfall experienced during survey. | 0 |

## 4.2. Targeted Survey Results

A total of six (6) SLL individuals were detected over the course of the 10-week monitoring period (**Figure 4-1**). All sightings were from two tile grids, both located in the southwestern portion of the site. Details have been provided in Table 4-2.

*Figure 4-1 Locations of SLL recorded over the 10-week monitoring period*

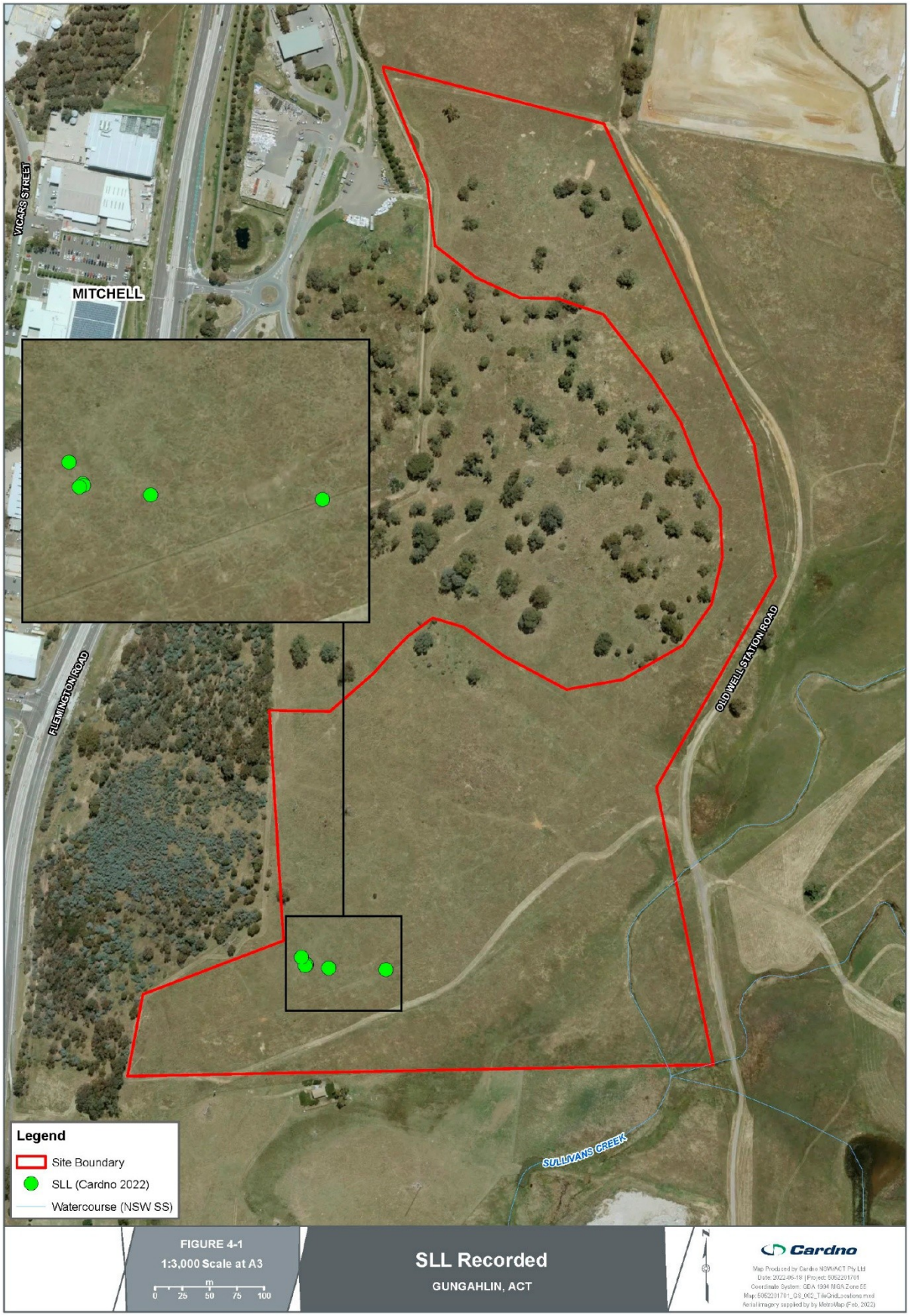


*Table 4-2 SLL records over the 10-week monitoring period*

| Date | SLL Detected | Tile* | Easting | Northing | Observer ** |
|---|---|---|---|---|---|
| 10/03/2022 | Yes (2) | 6.E.1 | 695527.3818 | 6100660.491 | ACM |
| | | 5.A.6 | 695600.8604 | 6100655.617 | ACM |
| 18/03/2022 | Yes (2) | 5.A.6 | 695527.3818 | 6100660.491 | AM |
| | | 5.D.7 | 695600.8604 | 6100655.617 | AM |
| 25/03/2022 | Yes (1) | 5.A.6 | 695526.2941 | 6100659.404 | AM |
| 31/03/2022 | No | N/A | N/A | N/A | N/A |
| 8/04/2022 | No | N/A | N/A | N/A | N/A |
| 13/04/2022 | No | N/A | N/A | N/A | N/A |
| 21/04/2022 | Yes (1) | 5.B.8 | 695523.1148 | 6100667.164 | AM |
| 28/04/2022 | No | N/A | N/A | N/A | N/A |
| 5/05/2022 | No | N/A | N/A | N/A | N/A |
| 13/05/2022 | No | N/A | N/A | N/A | N/A |
| *The tile reference is formatted as Grid.Row.Column. For example, 6.E.1 refers to the 1st tile in row E of tile grid 6 (see **Appendix A**.) ** ACM= Adriana Corona Mothe, AM= Annabelle McTaggart. | | | | | |

Photographic records of the detected SLL are provided in **Appendix B.**

A number of non-target fauna were also observed occupying tiles, including the Three-toed Skink *(Hemiergis talbingoensis)*, House Mouse *(Mus musculus)* and a species of Tree Frog (*Litoria* sp.).

## 4.3. Site Characteristics and Habitat

The site is comprised of a high cover of exotic grass species, predominately Phalaris (*Phalaris aquatica),* a tusk-forming species that provides potential habitat for SLL. Other exotic grasses that occur across the site include Oats (*Avena* sp.), Cock's-foot *(Dactylis glomerata),* and Paspalum *(Paspalum dilatatum)*. Non-grass species across the site are predominately exotic, including Flatweed (*Hypochaeris radicata*), Fleabane (*Conyza bonariensis*), Paterson's Curse (*Echium plantagineum*), Ribwort Plantain (*Plantago lanceolata*), Spear Thistle (*Cirsium vulgare*), and St John's Wort (*Hypericum perforatum*).

At the time of surveys, groundcover was generally high across the site, with vegetation across most tile grids comprised of >95% exotic cover with few bare patches. Grasses across the site were generally between 1-2m tall. Occasional rocky outcrops occur across the site and rock cover across the site is approximately 5-10%. The site has previously been subject to grazing and a low-moderate grazing pressure was observed across the site at the time of surveys, with livestock and macropod scat observed across the whole site. Site photos are provided in **Appendix C.**

# 5 Conclusion and Recommendations

Targeted surveys were undertaken in the proposed offset site over a 10-week monitoring period, from 10 March to 13 May 2022. A total of six (6) SLL were detected within the southwestern portion of the site.Additionally, previous records of the species occur within the site. As such, it is assumed the site provides at least some habitat value for the species.

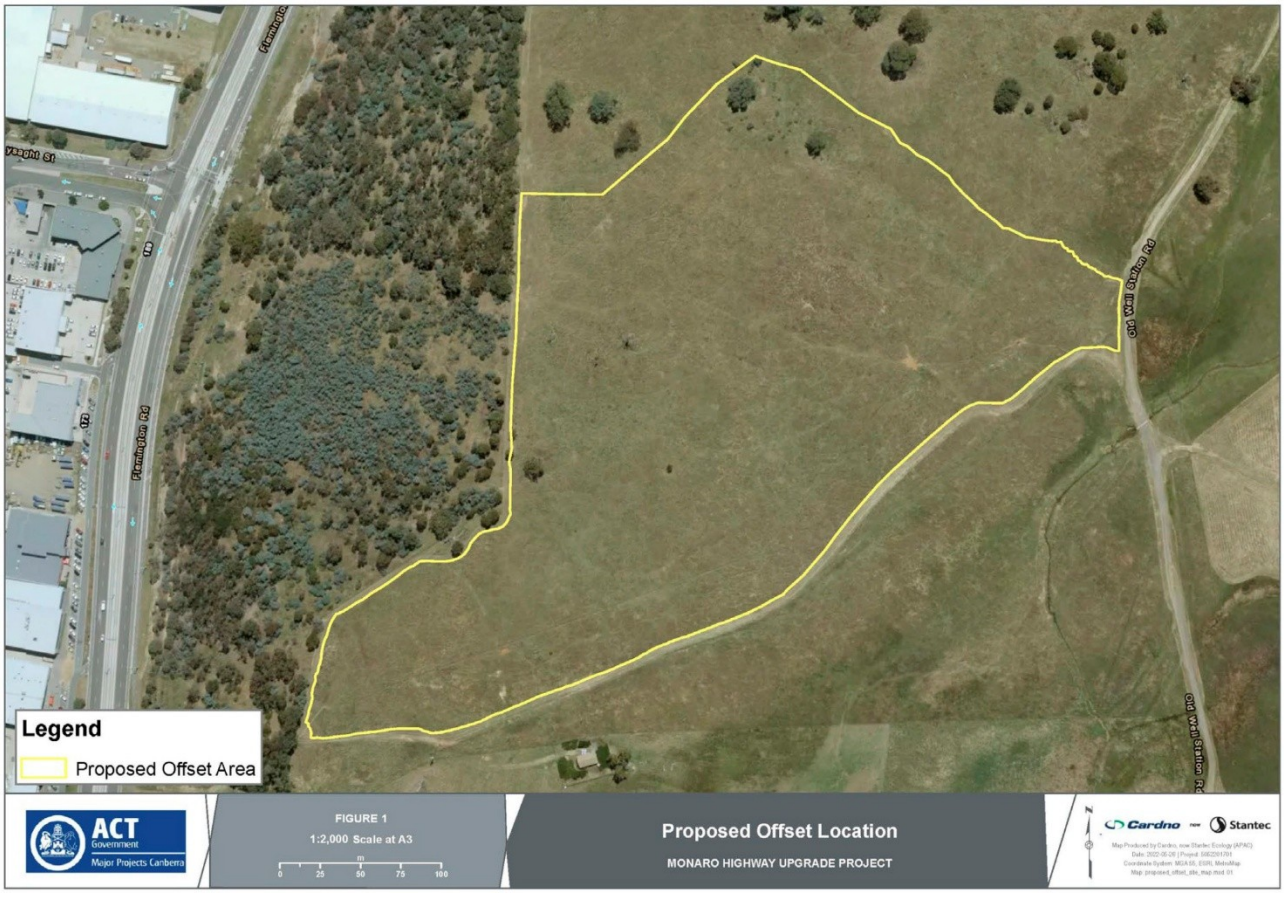
Despite the low density of SLL detected on site and the low habitat quality, it should be noted that the SLL is a cryptic species and may not be detected by surveys, even when present on site (DSEWPC 2011). As per the Commonwealth Guidelines, if SLL are detected during a survey, all potentially suitable habitat at the site should be considered occupied by the species.

It is likely that the site provides critical habitat for SLL, due to:

- The presence of at least two SLL confirmed on site;
- The connectivity of the site to an existing offset site with confirmed a population of SLL;
- Potential refuge habitat, provided by rocks and other site features; and
- The possibility of long-term protection under a formal agreement.

Based on the location of the individuals recorded and actual site conditions, the southern section of the Study Area could be considered as Offset site. The recommended Offset site depicted in Figure 5-1 is ~9.90ha, which is adequate to meet the Offset requirement of a minimum of 6.1ha.

*Figure 5-1 Indicative location of the recommended Offset location.*



# 6 References

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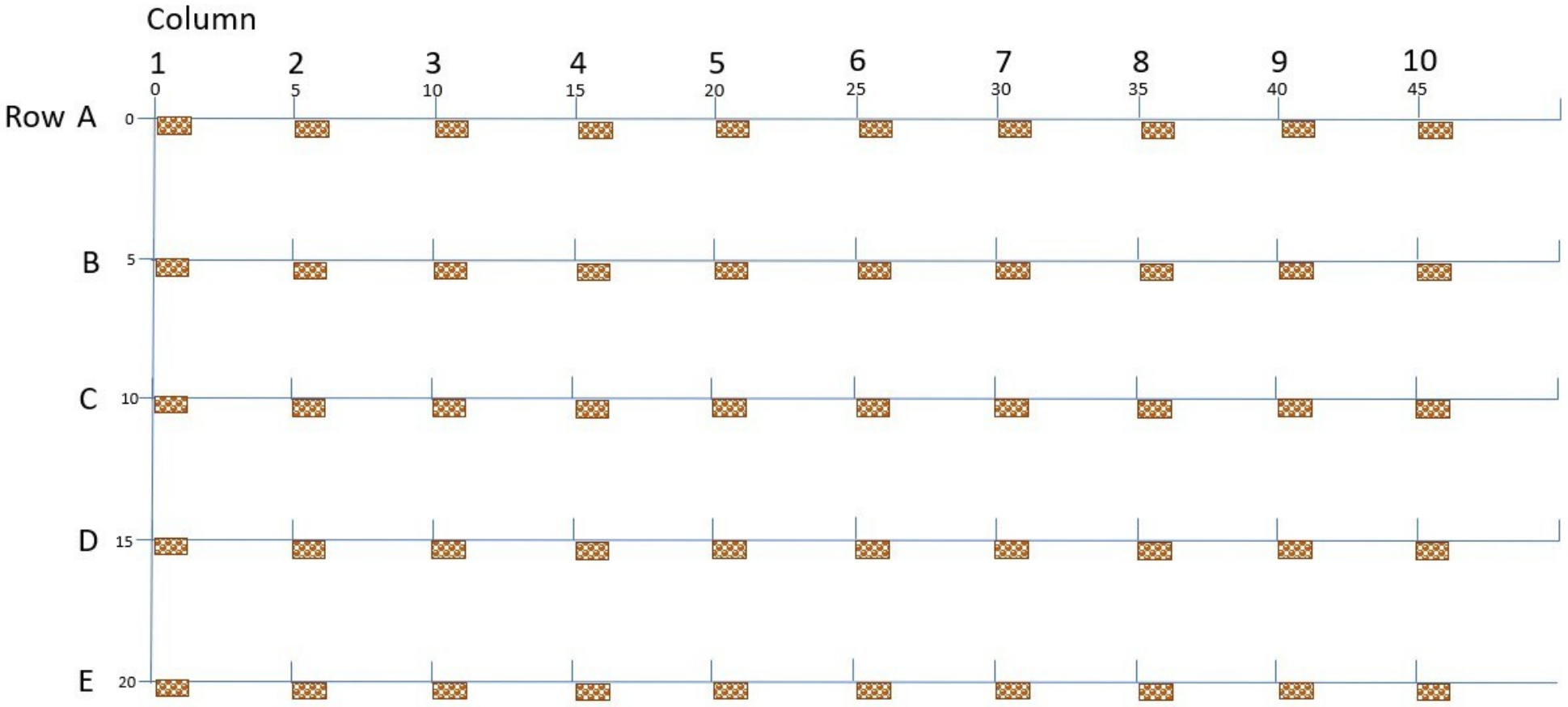
Threatened Species Scientific Committee (TSSC) (2016). *Conservation Advice – Delma impar Striped Legless Lizard.* Threatened Species Scientific Committee. Department of the Environment. Australian Government, Canberra.

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# APPENDIX A
# Arrangement of a Tile Grid




50 Tiles grid – 5m spacing between tiles

tile

**Tile ID:** e.g. 1.C.10 refers to __1___._C__.__10__
Grid No. Row.Column

# APPENDIX B
# Photographic Records



Plate 3 SLL detected at 5.A.6 on 10 March 2022



Plate 4 SLL detected at 5.A.6 on 18 March 2022



*Plate 5 SLL detected at 5.A.6 on 25 March 2022*



Plate 6 SLL detected at 5.B.8 on 21 April 2022

# APPENDIX C
# Site Photos



Plate 7 Tile Grid 1, looking east



Plate 8 Tile Grid 2, looking northeast



*Plate 9 Tile Grid 3, looking southeast*



*Plate 10 Tile Grid 4, looking north*



*Plate 11 Tile Grid 5, looking south*



*Plate 12 Tile Grid 6, looking north*



*Plate 13 Tile Grid 7, looking north*

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# Appendix C – SITE ASSESSMENT DATA

**Plot 1: Proposed Offset Site, northern portion of site with scattered remnant trees (E:695631, N:6100949)**

| Bare Ground Cover (%) | Rock Cover (%) | Grass <20cm Cover (%) | Medium-Tall (20-50cm) Tussock Cover (%) | Canopy Cover (%) | Number of Native Species (Groundcover/Canopy) | Number of Exotic Species (Groundcover/Canopy) |
|---|---|---|---|---|---|---|
| 1 | 0 | 20 | 70 | 5 | 1/1 | 8/0 |

**Plot 2: Proposed Offset Site, south-western corner of site at location of SLL records (E:695533, N:6100683)**

| Bare Ground Cover (%) | Rock Cover (%) | Grass <20cm Cover (%) | Medium-Tall (20-50cm) Tussock Cover (%) | Canopy Cover (%) | Number of Native Species (Groundcover/Canopy) | Number of Exotic Species (Groundcover/Canopy) |
|---|---|---|---|---|---|---|
| 0 | <0.1 (1 loose stone) | 90 | 10 | 0 | 0/0 | 4/0 |

**Plot 3: Proposed Offset Site, south-eastern portion of site (E:695647, N:6100732)**

| Bare Ground Cover (%) | Rock Cover (%) | Grass <20cm Cover (%) | Medium-Tall (20-50cm) Tussock Cover (%) | Canopy Cover (%) | Number of Native Species (Groundcover/Canopy) | Number of Exotic Species (Groundcover/Canopy) |
|---|---|---|---|---|---|---|
| 0 | <0.1 (1 loose stone) | 5 | 95 | 0 | 0/0 | 5/1 |

**Plot 4: Impact Site (E:697342.481, N:6082430.656)**

| Bare Ground Cover (%) | Rock Cover (%) | Grass <20cm Cover (%) | Medium-Tall (20-50cm) Tussock Cover (%) | Canopy Cover (%) | Number of Native Species (Groundcover/Canopy) | Number of Exotic Species (Groundcover/Canopy) |
|---|---|---|---|---|---|---|
| 0 | 0 | 40* | 60* | 0 | 1/0 | 5/0 |

*Grasses consisted predominately of dry and/or dead matter. Shorter areas within the grassland structure were noted to be composed predominately of thatch and there was an absence of tussock-like structure.

# Appendix B – EPBC CONDITIONS OF APPROVAL

Australian Government
Department of Climate Change, Energy, the Environment and Water

## Variation of conditions attached to approval

**Monaro Highway – Lanyon Drive Upgrade Package 1C, Hume, ACT (EPBC ref 2020/8768)**

This decision to vary conditions of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

## Approved action

| | |
|---|---|
| **Approval holder** | Transport Canberra and City Services Directorate<br>ABN: 37 307 569 373 |
| **Approved action** | The upgrade of the Monaro Highway between David Warren Road (intersection with Monaro Highway) and Sheppard Street (intersection with Lanyon Drive), Hume, ACT. See EPBC Act referral 2020/8768 |

## Variation

| | |
|---|---|
| **variation of conditions attached to approval** | The variation is:<br>Delete conditions, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19 attached to the approval and substitute with the condition specified in the table below.<br>Add new conditions 20, 21, 22, 23 ,24, 25,26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39 and 40 specified in the table below.<br>Add new definitions of Annual Compliance Report period or ACR period, Audit period, Audit report, Commencement of the Action, Habitat quality, Harm, Independent auditor, Package 1C Early Works, Package 1C Early Works Boundary, Secure, securement or secured, SMART and Suitably qualified ecologist.<br>Delete and substitute with the definitions in the table below definitions of Business Day, Commence the Action or commencement of the Action, Completion data, Compliance records, Compliance report, Construction, Environmental Management Plan Guidelines, Environmental Offsets Policy, Incident, Independent audit, Plan, Sensitive ecological data, Shapefile, Site and Striped legless lizard habitat.<br>Revoke definition of Legally secure/ing/d and Suitably qualified person.<br>Delete Attachment A and Attachment B attached to the approval and add the new Attachment A, Attachment B and Attachment C specified in the table below. |
| **date of effect** | This variation has effect on the date this instrument is signed. |

## Person authorised to make decision

| | |
|---|---|
| **name and position** | Brendan Linton-Smith<br>Acting Branch Head<br>Environment Assessments (Vic and Tas) and Post Approvals |
| **signature** |  |
| **date of decision** | 14 August 2025 |

| **Date of decision** | **Conditions attached to approval** |
|---|---|
| **Part A – Conditions specific to the action** | |
| *As varied on the date this instrument was signed* | 1. To minimise impacts to the **Striped Legless Lizard**, the approval holder must not:<br>a. **clear** more than 4.05 hectares (ha) of **Striped Legless Lizard habitat** within the **site**; and<br>b. **clear** outside of the **site**. |
| *As varied on the date this instrument was signed* | 2. The approval holder must<br>a. submit a Construction Environmental Management Plan (CEMP) to the **department** for the **Minister's** approval to avoid and mitigate **harm** to **protected matters** within the **site**.<br>b. not **commence the Action** unless the **Minister** has approved the CEMP in writing.<br>c. must commence implementing the CEMP approved by the Minister prior to the **commencement of the Action**.<br>d. continue to implement the approved CEMP until the **completion of the Action**. |
| *As varied on the date this instrument was signed* | 3. By implementing the CEMP, the approval holder must achieve the following environment outcome:<br>a. Prevent any avoidable **harm** to **protected matters** and mitigate unavoidable and accidental **harm** to **protected matters**. |
| *As varied on the date this instrument was signed* | 4. The CEMP must be prepared by a suitably qualified ecologist. All commitments, including environmental outcomes, management measures, corrective measures, trigger values and performance indicators in the CEMP must be **SMART** and based on referenced or included evidence of effectiveness. The CEMP must be consistent with the **Environmental Management Plan Guidelines**, and must include:<br>a. details of the relevant **protected matters** and a reference to **EPBC Act** approval conditions to which the plan refers, |

| Date of decision | Conditions attached to approval |
|---|---|
| | b. a table of commitments made in the plan to achieve the environmental outcomes, and a reference to exactly where these commitments are detailed in the plan,<br>c. commitments capable of ensuring that the environmental outcomes are achieved,<br>d. management measures to avoid and mitigate **harm** to **Striped Legless Lizards**, including artificial lighting management and a relocation protocol to safely relocate any **Striped Legless Lizard** individual away from an area of clearing or construction by a **fauna spotter catcher**,<br>e. reporting and review mechanisms to demonstrate compliance with the commitments made in the plan,<br>f. an assessment of risks relating to achieving the environmental outcomes and risk management strategies and/or mitigation measures that will be applied to address identified risks,<br>g. impact avoidance, mitigation and/or repair measures, and the timing of those measures, and<br>h. a monitoring program, which must include:<br>i. performance indicators,<br>ii. triggers values for corrective measures,<br>iii. the timing and frequency of monitoring, ensuring monitoring is capable of detecting trigger values and changes in the performance indicators.<br>i. Details describing the **Package 1C Early Works** including**,**<br>i. a map, **shapefile** and details specifying:<br>(1) The location and extent of where **clearing** will be undertaken<br>(2) The location and extent of **Striped Legless Lizard habitat** and **Striped Legless Lizard** exclusion fencing to provide a minimum 5-meter buffer from **Striped Legless Lizard habitat**.<br>ii. details of sub plans to the CEMP that will be used to implement **Package IC Early Works**. |
| **Offset requirements** | |
| *As varied on the date this instrument was signed* | 5. To compensate for the residual significant impact on **Striped Legless Lizard**, the approval holder must submit to the **department** for approval by the **Minister** an Offset Management Plan (OMP). The approval holder must not undertake any **clearing**, **construction** or other physical activity associated with the Action outside of the **Package 1C Early Works Boundary** unless the OMP is approved in writing by the **Minister.** The approval holder must implement the approved OMP from the date of approval by the **Minister** and continue to implement the approved OMP at least until the expiry date of this approval. |

| Date of decision | Conditions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | 6. The OMP must meet the requirements of the **Environmental Offsets Policy** and the **Environmental Management Plan Guidelines** to the satisfaction of the **Minister**. All commitments, including environmental outcomes, management measures, corrective actions, trigger values and performance indicators in the OMP must be **SMART** and based on referenced or included evidence of effectiveness. The OMP must be prepared by a **suitably qualified ecologist** and must include:<br>a. detailed information on the residual impacts to **Striped Legless Lizard** that will be compensated for by the offset (comprising both the **securement** of all offset sites and the **habitat quality** improvements to be achieved at each offset site), including all areas of habitat, and the **habitat quality**, for **Striped Legless Lizard** at all locations impacted by the Action which the offset is to address,<br>b. the relevant **protected matters** and a reference to the **EPBC Act** approval conditions to which the OMP refers,<br>c. detailed information and a **shapefile** specifying the location, area and boundaries of each offset site,<br>d. detailed baseline information on the areas of the habitat, and the **habitat quality**, for **protected matters** at each offset site,<br>e. achievable offset outcomes, relevant to the conservation of **Striped Legless Lizard**, for each offset site and the timeframes in which they will be achieved,<br>f. a table summarising all commitments to achieve the offset outcomes for **protected matters** at each offset site and a reference to where each commitment is detailed in the OMP,<br>g. reporting and review mechanisms to inform the **department** annually regarding compliance with the implementation of management measures and the attainment and maintenance of the offset outcomes,<br>h. an assessment of risks to achieving each offset outcome and what risk management measures and/or strategies will be applied to address these,<br>i. a monitoring program, which must specify:<br>ii. measurable performance indicators and the timeframes for their achievement to gauge attainment of each offset outcome for the **protected matters**.<br>iii. trigger values for corrective actions, and<br>iv. the proposed timing (including season/time of day/frequency) methods and effort, and an explanation of how these will be effective for this purpose, of monitoring to detect trigger values, changes in the performance indicators and to gather evidence that effectively demonstrates actual progress towards, attainment of and maintenance of all offset outcomes for the protected matters,<br>i. corrective actions to be implemented to ensure all offset outcomes for the **protected matters** are achieved or maintained if trigger values are reached or performance indicators are not achieved in the specified timeframes,<br>j. references to related plans and conditions of approval,<br>k. how each offset site will be protected, including **securement**, and all offset outcomes maintained or improved, at least until the expiry of the approval. |

| Date of decision | Conditions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | 7. To compensate for the residual impacts of the Action on **Striped Legless Lizard**, the approval holder must provide written evidence of the initiation of **securement** of all offset sites specified in the approved OMP before undertaking any **clearing**, **construction** or other physical activity associated with the Action outside of the **Package 1C Early Works Boundary** and provide written evidence of final **securement** within 18 months of the **commencement of the Action**. |
| *As varied on the date this instrument was signed* | 8. The approval holder must achieve all offset outcomes for each offset site specified in the approved OMP by the time specified in the OMP. Once achieved, the approval holder must maintain or exceed the offset outcomes at least until the expiry date of this approval. From the date of approval of the OMP the approval holder must:<br>a. have each offset site assessed annually by **a suitably qualified ecologist** to determine if the offset outcomes specified in the OMP have been achieved<br>b. submit to the **department** a report prepared by a **suitably qualified ecologist** detailing the presence of **Striped Legless Lizard** and **habitat quality** of and their habitat within each offset site within 20 business days after each **ACR period**, and<br>c. notify the **department** in writing of any offset outcomes that has not been achieved at all offset sites and the likely reasons that this/these offset outcomes have not been met. |
| **Part B – Standard administrative conditions** | |
| **Revision of action management plans** | |
| *As varied on the date this instrument was signed* | 9. The approval holder may, at any time, apply to the **Minister** for a variation to an action management plan approved by the **Minister** by submitting an application in accordance with the requirements of section 143A of the **EPBC Act**. If the **Minister** approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of any previous version of the action management plan. |
| **Notification of date of commencement of the action** | |
| *As varied on the date this instrument was signed* | 10. The approval holder must notify the **department** electronically, within 5 **business days** of the date of:<br>a. **commencement of the Action**, following **commencement of the Action**.<br>b. Undertaking the first instance of any on-site **clearing**, **construction** or other physical activity associated with the Action outside of the **Package 1C Early Works Boundary.** |

| Date of decision | Conditions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | 11. The approval holder must not **commence the Action** later than 15 March 2027. |
| **Compliance records** | |
| *As varied on the date this instrument was signed* | 12. The approval holder must maintain accurate and complete **compliance records** and document the procedure for recording and storing **compliance records**. |
| *As varied on the date this instrument was signed* | 13. If the **department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **department** within the timeframe specified in the request.<br>**Note: Compliance records** may be subject to audit by the **department**, or by an **independent auditor** in accordance with section 458 of the **EPBC Act**, and/or be used to verify compliance with the conditions. Summaries of the results of an audit may be published on the **department's** website or through the general media. |
| **Submission and publication of plans** | |
| *As varied on the date this instrument was signed* | 14. Wherever these conditions require the approval holder to submit any **plan** to the **department**, all such **plans** must be submitted to the **department** electronically. |
| *As varied on the date this instrument was signed* | 15. Unless otherwise agreed to in writing by the **Minister**, the approval holder must publish each **plan** on the **website** within 15 **business days** of the date:<br>a. the **plan** is approved by the **Minister** in writing, if the **plan** requires the approval of the **Minister**,<br>b. the **plan** is submitted to the **department** in accordance with a requirement of these conditions, if the **plan** does not require the approval of the **Minister**. |
| *As varied on the date this instrument was signed* | 16. The approval holder must keep all **plans** published on the **website**, in a format that is easily accessible and downloadable, from the first date which that **plan** must be published and until the expiry date of this approval. This requirement applies to all current and superseded versions of **plans**. |
| *As varied on the date this instrument was signed* | 17. The approval holder is required to exclude or redact **sensitive ecological data** from any version of a **plan** before that **plan** is published on the **website** or otherwise provided to a member of the public. If **sensitive ecological data** is excluded or redacted from a **plan**, the approval holder must notify the **department** in writing what exclusions and redactions have been made in the version published on the **website**. |

| Date of decision | Conditions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | 18. The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the *Guidelines for biological survey and mapped data*, Commonwealth of Australia 2018, or as otherwise specified by the **Minister** in writing. |
| *As varied on the date this instrument was signed* | 19. The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the *Guide to providing maps and boundary data for EPBC Act projects*, Commonwealth of Australia 2021, or as otherwise specified by the **Minister** in writing. |
| *As varied on the date this instrument was signed* | 20. The approval holder must submit all **monitoring data** (including **sensitive ecological data**), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the **department** within 20 **business days** following the end each **ACR period** except where otherwise specified in a **plan**. |
| ***Annual compliance reporting*** | |
| *As varied on the date this instrument was signed* | 21. The approval holder must prepare a **compliance report** for each **Annual Compliance Report period** (**ACR period**). |
| *As varied on the date this instrument was signed* | 22. The approval holder must ensure each **compliance report** includes:<br>a. accurate and complete details of compliance and any non-compliance with:<br>i. each condition attached to this approval decision, and<br>ii. all commitments made in each **plan**,<br>b. a schedule of all **plans** in effect in relation to these conditions during the **ACR period**,<br>c. accurate and complete details of how each **plan** was implemented during the **ACR period**, and<br>d. if any **incident** occurred, accurate and complete details of each **incident**. |
| *As varied on the date this instrument was signed* | 23. The approval holder must ensure each **compliance report** is completed to the satisfaction of the **Minister** and is consistent with the *Annual Compliance Report Guidelines*, Commonwealth of Australia 2023. |
| *As varied on the date this instrument was signed* | 24. The approval holder must, within 20 **business days** following the end each **ACR period**, in a format that is easily accessible and downloadable, publish on the **website**:<br>a. each **compliance report**, and<br>b. a **shapefile** showing all **clearing** of **protected matters**, and their habitat, undertaken within the **ACR period**. |

| Date of decision | Conditions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | 25. The approval holder must:<br>a. Exclude or redact **sensitive ecological data** from each **compliance report** and **shapefile** published on the **website** or otherwise provided to a member of the public.<br>b. If **sensitive ecological data** is excluded or redacted from a version of a **compliance report** published or otherwise provided to a member of the public, submit the full **compliance report** to the **department** within 5 **business days** of its publication on the **website** and notify the **department** in writing what exclusions and redactions have been made in the version published on the **website** or otherwise provided to a member of the public.<br>c. If **sensitive ecological data** is excluded or redacted from a version of a **shapefile** published or otherwise provided to a member of the public, submit the full **shapefile** to the **department** within 5 **business days** of its publication on the **website** and notify the **department** in writing what exclusions and redactions have been made in the version published on the **website** or otherwise provided to a member of the public. |
| *As varied on the date this instrument was signed* | 26. The approval holder must notify the **department** electronically, within 5 **business days** of each date of publication that the **compliance report** has been published on the **website**. In this notification, the approval holder must provide the **department** with the web address for where the **compliance report** and related **shapefile** are published on the **website**. |
| *As varied on the date this instrument was signed* | 27. The approval holder must keep each **compliance report** and related **shapefile** published on the **website** from the first date which that **compliance report** must be published and until the expiry date of this approval.<br>**Note: Compliance reports** may be published on the **department's** website. |
| **Reporting non-compliance** | |
| *As varied on the date this instrument was signed* | 28. The approval holder must notify the **department** electronically, within 2 **business days** of becoming aware of any **incident**. The approval holder must specify in each notification:<br>a. any condition or commitment made in a **plan** which has been or may have been not complied with,<br>b. a short description of the **incident**, and<br>c. the location (if applicable, including co-ordinates), date and time of the **incident**. |
| *As varied on the date this instrument was signed* | 29. The approval holder must provide to the **department** in writing, within 12 **business days** of becoming aware of an **incident**, the details of that **incident**. The approval holder must specify:<br>a. all corrective measures and investigations which the approval holder has already taken in respect of the **incident**,<br>b. the potential impacts of the **incident**,<br>c. the method and timing of any corrective measures that the approval holder proposes to undertake to address the **incident**, and<br>d. any variation of these conditions or revision of a plan that will be required to prevent recurrence of the **incident** and/or to address its consequences. |

| Date of decision | Conditions attached to approval |
|---|---|
| **Independent audit** | |
| *As varied on the date this instrument was signed* | 30. The approval holder must ensure that an **independent audit** of compliance with the conditions is conducted for every **audit period**. |
| *As varied on the date this instrument was signed* | 31. The approval holder must submit details of the proposed **independent auditor** and their qualifications to the **department** within 10 **business days** following the end of each **audit period**. |
| *As varied on the date this instrument was signed* | 32. The approval holder must ensure the scope of each **independent audit** is sufficient to determine the compliance status for each condition of approval, and each commitment made in each **plan**. |
| *As varied on the date this instrument was signed* | 33. The approval holder must ensure the criteria for each **independent audit** and the undertaking of each independent audit are consistent with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019. |
| *As varied on the date this instrument was signed* | 34. The approval holder must submit an **audit report** to the **department** for written agreement from the **department** within 3 months following the end of each **audit period**, or as otherwise directed by the **Minister** in writing. |
| *As varied on the date this instrument was signed* | 35. The approval holder must ensure each **audit report** is completed to the satisfaction of the **Minister** and is consistent with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019. |
| *As varied on the date this instrument was signed* | 36. The approval holder must publish each **audit report** on the **website**, in a format that is easily accessible and downloadable, within 10 **business days** of the date of the **department** agrees to the **audit report** in writing. |
| *As varied on the date this instrument was signed* | 37. The approval holder must notify the **department** within 5 **business days** of the date the **audit report** is published on the **website**. In this notification, the approval holder must provide the **department** with the web address for where the **audit report** is published on the **website**. |

| Date of decision | Conditions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | 38. The approval holder must keep each **audit report** published on the **website** from the first date which that **audit report** must be published and until the expiry date of this approval. |
| **Completion of the action** | |
| *As varied on the date this instrument was signed* | 39. Within 20 **business days** after the **completion of the Action**, and, in any event, at least 20 **business days** before this approval expires, the approval holder must notify the **department** electronically of the date of **completion of the Action** and provide **completion data**. The approval holder must submit any spatial data that comprises **completion data** as a **shapefile**. |
| *As varied on the date this instrument was signed* | 40. The approval holder must notify the **department** electronically 60 **business days** prior to the expiry date of this approval, that the approval is due to expire.<br>**Note:** Section 145C of the **EPBC Act** entitles the approval holder to request an extension to the period of effect of this approval. |

| Date of decision | Definitions attached to approval |
|---|---|
| **Part C - Definitions** | |
| In these conditions, except where contrary intention is expressed, the following definitions are used: | |
| *As varied on the date this instrument was signed* | **Annual Compliance Report period** or **ACR period** means each subsequent 12-month period following the date of this approval decision until the expiry date of this approval, unless otherwise specified in writing by the **Minister**. |
| *As varied on the date this instrument was signed* | **Audit period** means each subsequent three-year period following the **commencement of the Action** until the expiry date of this approval unless otherwise specified in writing by the **Minister**. |
| *As varied on the date this instrument was signed* | **Audit report** means a written report of an **independent audit**. |
| *As varied on the date this instrument was signed* | **Business day** means a day that is not a Saturday, a Sunday or a public holiday in the ACT. |
| *Original dated 15/03/2022* | **Clear/Clearing** means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting or burning of vegetation. |
| *As varied on the date this instrument was signed* | **Commence the Action** or **commencement of the Action** means the first instance of any on-**site clearing**, **construction** or other physical activity associated with the Action. |

| Date of decision | Definitions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | **Commencement of the Action** means the date on which the approval holder **commences the Action**. |
| *As varied on the date this instrument was signed* | **Completion data** means an environmental report and spatial data clearly detailing how the conditions of this approval have been met. |
| *As varied on the date this instrument was signed* | **Completion of the Action** means the date on which all activities associated with the approved Action have permanently ceased and/or been completed. |
| *As varied on the date this instrument was signed* | **Compliance records** means all documentation or other material in whatever form required to demonstrate compliance with these conditions of approval (including compliance with commitments made in **plans**) in the approval holder's possession, or that are within the approval holder's power to obtain lawfully. |
| *As varied on the date this instrument was signed* | **Compliance report** means a written report of compliance with, and fulfilment of, these conditions (including compliance with commitments made in **plans**). |
| *As varied on the date this instrument was signed* | **Construction** means:<br>• the erection of a building or structure that is, or is to be, fixed to the ground and wholly or partially fabricated on-site,<br>• the alteration, maintenance, repair or demolition of any building or structure,<br>• any work which involves breaking of the ground (including pile driving) or bulk earthworks,<br>• the laying of pipes and other prefabricated materials in the ground, and<br>• any associated excavation work. |
| *Original dated 15/03/2022* | **Department** means the Australian Government agency responsible for administering the **EPBC Act**. |
| *As varied on the date this instrument was signed* | **Environmental Management Plan Guidelines** means the *Environmental Management Plan Guidelines*, Commonwealth of Australia 2024. |
| *Original dated 15/03/2022* | **EPBC Act** means the *Environment Protection and Biodiversity Conservation Act 1999* (Cth). |
| *As varied on the date this instrument was signed* | **Environmental Offsets Policy** means the *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy*, Commonwealth of Australia 2012. |

| Date of decision | Definitions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | **Habitat quality** means a measure of the overall viability of a site and its capacity to support **protected matters**, with respect to site condition, site context and species stocking rate and/or composition. |
| *As varied on the date this instrument was signed* | **Harm** means to cause any measurable direct or indirect disturbance or deleterious change as a result of any activity associated with the Action. |
| *As varied on the date this instrument was signed* | **Incident** means any:<br>• event which has the potential to, or does, **harm** any **protected matter**,<br>• potential non-compliance with these conditions, including the administrative requirements,<br>• actual non-compliance with these conditions, including the administrative requirements,<br>• potential non-compliance with one or more commitment made in a **plan**, and/or<br>• actual non-compliance with one or more commitment made in a **plan** |
| *As varied on the date this instrument was signed* | **Independent audit** means an audit, conducted by an **independent auditor**, of compliance with and fulfilment of these conditions and the commitments made in plans, objectively evaluated against the audit criteria developed by the independent auditor, in accordance with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019. |
| *As varied on the date this instrument was signed* | **Independent auditor** means a person, or firm, who:<br>• does not have any individual, financial*, employment* or family affiliation or any conflicting interests with the Action, the approval holder or the approval holder's staff, representatives, or associated persons,<br>• has demonstrated experience in undertaking government-regulated environmental compliance audits, and<br>• holds relevant professional qualifications and accreditations.<br>*Other than for the purpose of undertaking the role for which an independent person, or firm, is required. |
| *Original dated 15/03/2022* | **Minister** means the Australian Government Minister administering the **EPBC Act** including any delegate thereof. |
| *Original dated 15/03/2022* | **Monitoring data** means the data required to be recorded under the conditions of this approval. |
| *As varied on the date this instrument was signed* | **Package 1C Early Works** means any on-**site clearing**, **construction** or other physical activity associated with the Action located within the **Package 1C Early Works Boundary.** |
| *As varied on the date this instrument was signed* | **Package 1C Early Works Boundary** means the area enclosed by the dashed green line designated '1C Early Works' represented in Attachments A, B and C. |

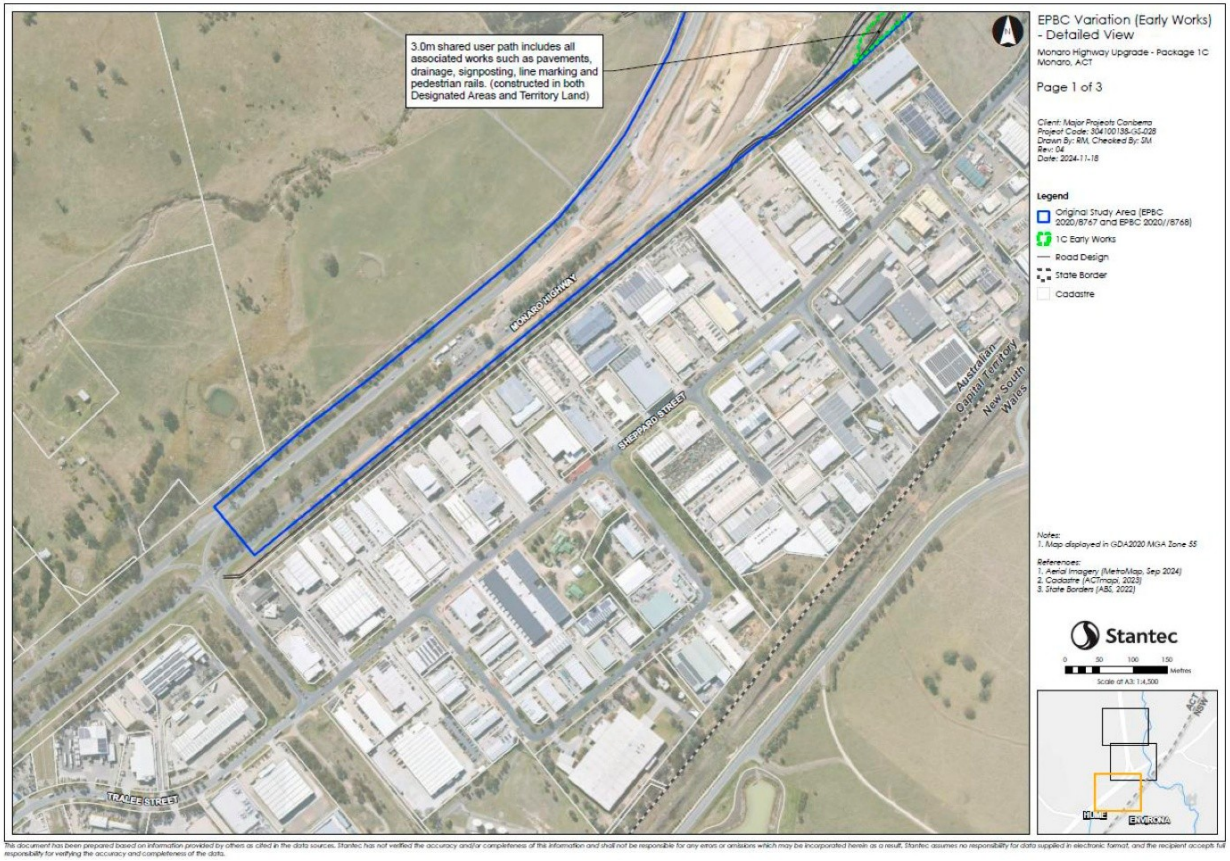
| Date of decision | Definitions attached to approval |
|---|---|
| *As varied on the date this instrument was signed* | **Plan** means any action management plan or strategy that the approval holder is required by these conditions to implement. |
| *Original dated 15/03/2022* | **Protected matter(s)** means a matter protected under a controlling provision in Part 3 of the **EPBC Act** for which this approval has effect. |
| *As varied on the date this instrument was signed* | **Secure**, **securement** or **secured** means to provide conservation protection on the title of land in perpetuity through a legal mechanism that establishes either a nature reserve overlay under the ACT Territory Plan (ACT) and incorporates the offset in to the Canberra Nature Park, or another enduring protection mechanism agreed to in writing by the department, to provide protection for the site against development incompatible with conservation. Where the legal mechanism of securement is a nature reserve overlay under the ACT Territory Plan, evidence of the initiation of securement is the submission of an application under the *ACT Planning Act 2023* to amend the ACT Territory Plan. |
| *As varied on the date this instrument was signed* | **Sensitive ecological data** means data as defined in the *Sensitive Ecological Data – Access and Management Policy v1.0*, Commonwealth of Australia 2016. |
| *As varied on the date this instrument was signed* | **Shapefile** means location and attribute information about the Action provided in an Esri shapefile format containing<br>• '.shp', '.shx', '.dbf' files,<br>• a '.prj' file which specifies the projection or geographic coordinate system used, and<br>• an '.xml' metadata file that describes the shapefile for discovery and identification purposes. |
| *As varied on the date this instrument was signed* | **Site** means the location of the Action, represented in Attachments A, B and C by<br>• the area enclosed by the dark blue line designated 'Original Study Area (EPBC 2020/8767 and EPBC 2020//8768)'; and<br>• The area shown in magenta designated 'EPBC Additional Amended SLL Impact (0.85 ha)'. |
| *As varied on the date this instrument was signed* | **SMART** means specific, measurable, achievable, relevant and time bound. |
| *Original dated 15/03/2022* | **Striped Legless Lizard** means the **EPBC Act** listed threatened species *Delma impar*. |
| *As varied on the date this instrument was signed* | **Striped Legless Lizard habitat** means the areas within the **Site** represented in Attachment B by<br>• The area labelled as 'EPBC Approved SLL Impact (3.20 ha)'<br>• The area labelled as 'EPBC Additional Amended SLL Impact (0.85 ha)' |
| *As varied on the date this instrument was signed* | **Suitably qualified ecologist** (for the purpose of preparing the implementing environmental management plans) means a person who has relevant professional qualifications and:<br>• at least 3 years of work experience writing and implementing management plans for the habitat of **protected matters**, |

| Date of decision | Definitions attached to approval |
|---|---|
| | • has implemented and reported on management plans for the habitat of **protected matters**, and can demonstrate the implementation of those plans achieved the desired **habitat quality** for habitat of **protected matters**, and<br>• can give authoritative assessment and advice on offset management to improve the **habitat quality** of the habitat of **protected matters** using relevant protocols, standards, methods and/or literature. |
| *Original dated 15/03/2022* | **Website** means a set of related web pages located under a single domain name attributed to the approval holder and available to the public. |

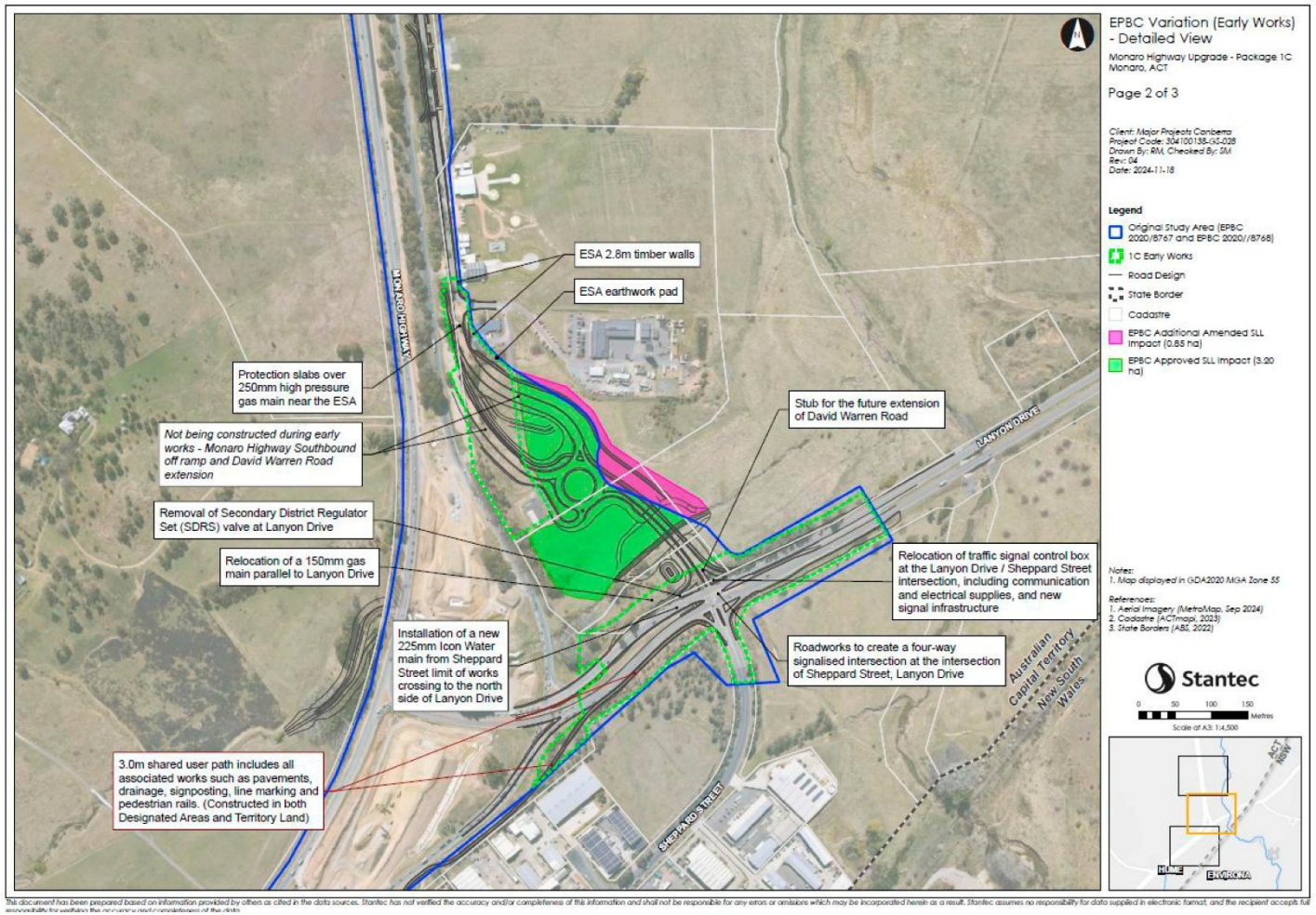
Australian Government

Department of Climate Change, Energy, the Environment and Water

| Date of decision | Annexure A |
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| As varied on the date this instrument was signed | **Attachment A**: Map of the **Site** page 1 of 3 |

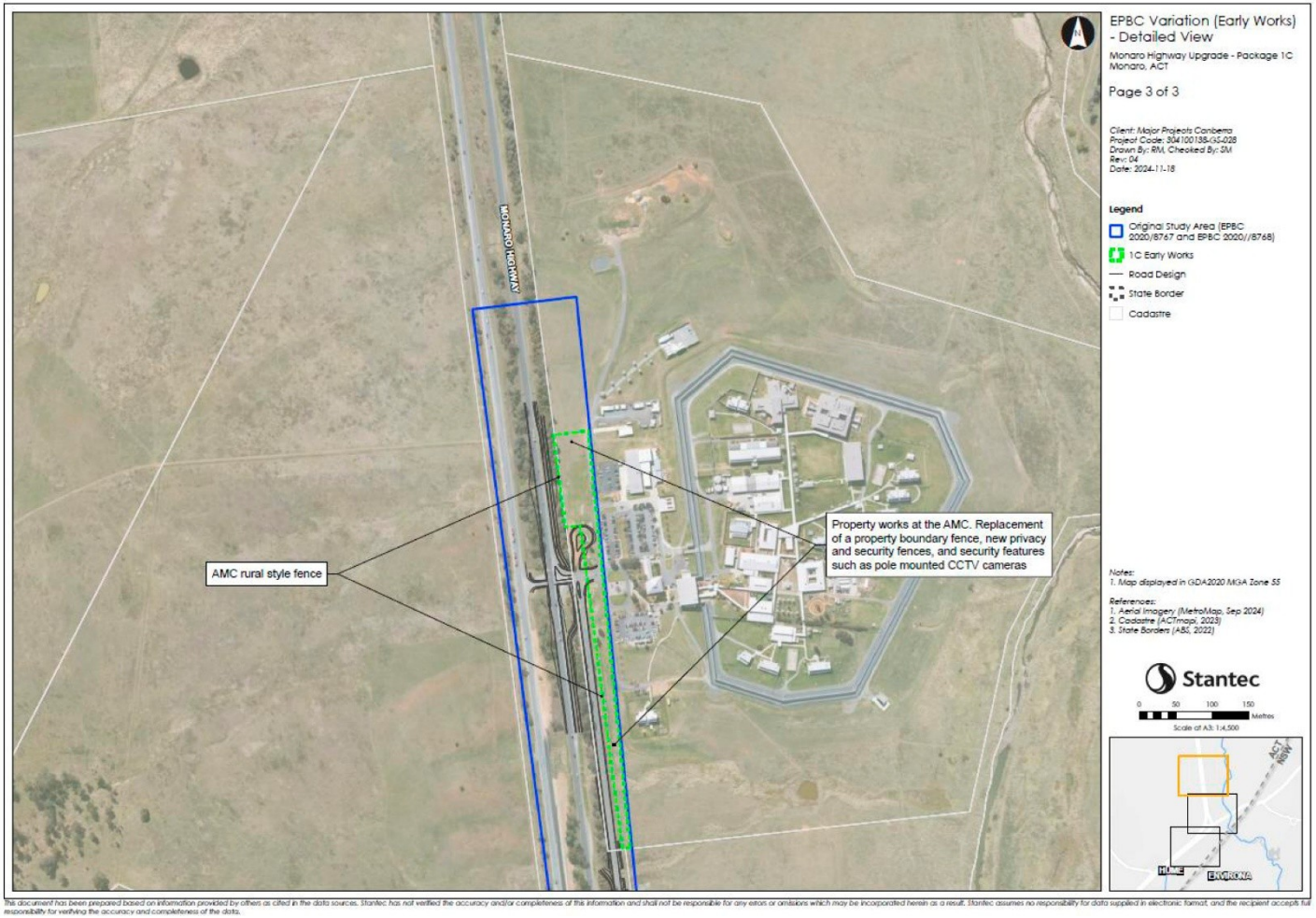


| Date of decision | Annexure A |
|---|---|
| As varied on the date this instrument was signed | **Attachment B**: Map of the **Site** page 2 of 3 |




This document has been prepared based on information provided by others as cited in the data sources. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

| Date of decision | Annexure A |
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| As varied on the date this instrument was signed | **Attachment C**: Map of the **Site** page 3 of 3 |



# Appendix C – RISK REGISTER

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 1 | Planning | Inappropriate Territory Plan overlay | Offsets establishment process | Not meeting commitment for protection of offset site. | PCS Planning | Territory Plan Variation process | 3 | 2 | Medium | Has Room for improvement | Yes | Begin TPV process. |
| 2 | Planning | Absence of ACT Government Activities Declaration | Failure of ACT legislation to have declaration in place for offset/reserve site; offset announcement to public in short timeframe | Protection of site values from non-compliance of visitors to prohibited activities not legally enforceable | PCS Ops | Canberra Nature Park planning process | 2 | 1 | Low | Has Room for improvement | Yes | Update to legislative instrument. |
| 3 | Planning | Inadequate resources to implement appropriate management, monitoring and reporting for an offset | Inadequate funding; budget delays; staffing issues; unforeseen circumstances; PCS given additional land/functions/responsibilities without additional resources to support management; EPSDD failure to | Failure to meet reporting timelines and commitments; inability to plan restoration projects; delays to implementing works to meet offset commitments; risk of site degradation due to | PCS Planning | ACT Government budget bid process. Recurrent budget bids developed for future years.<br>Additional funding reviewed and promoted through treasury bids | 3 | 3 | Medium | Has Room for | Yes | Budget bid to be revised as required, including for additional funding where unforeseen management actions are required. |
| 4 | Planning | Natural and cultural heritage related challenges i.e. consultation, inclusion, resulting understanding and knowledge of site significance or potential artefacts of significance | Restoration works; various land management activities; previously unrecorded/unknown cultural heritage or artefacts; lack of, or conflict in input/consultation with local Aboriginal Traditional Owners | Damage and potential irreparable loss of cultural/heritage values; loss of connection between Aboriginal traditional owners and country; potential negative impacts to relationship between ACT Government and Aboriginal community; limited or no ongoing involvement of Traditional Owners with reserve; gap in education and Interp programs; delays or barriers to implementing management and restoration actions; potential to reduce capacity of meeting restoration targets for reserve | PCS Planning/Ops/Projects | Consulting Dharuwa committee and Ngunnawal community representatives through Healthy Country team. Broader engagement with local indigenous community through Landscape design process.<br>Consultation with ACT Heritage. | 3 | 3 | Medium | Has Room for improvement | Yes | Ongoing community consultation. |
| 5 | Planning | Estate development activities occurring within offset boundary or damaging offset values | Unclear offset boundaries; lack of planning; lack of input/review into CEMP and planning documents; break down of communication between PCS and estate developers | Degradation and potential irreparable damage or loss of MNES and other biodiversity values; risk of non-compliance with related commitments for offset | PCS Planning/Ops | Review of estate development plans and CEMP | 3 | 2 | Medium | Has Room for improvement | Yes | |

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 6 | Planning | Inadequate research and monitoring | Staff not available; delays in monitoring programs due to unforeseen circumstances; prolonged inappropriate weather to conduct surveys; observer bias; lack of understanding of threats to reserve values; lack of understanding of restoration requirements | Offset commitments reporting not finalised on time; failure to determine if offset maintained or improved in line with offset commitments; failure for some offset sites to be monitored appropriately; potential loss or gain of MNES without knowledge from monitoring data; potential underestimation or overestimation of native plant species diversity, cover scores or other incorrect data; potential ecologically inappropriate restoration activities; risk of non-compliance with related commitments for offset | PCS Planning/PCS Ecologists | PCS Offsets Monitoring and Research Plan implementation. PCS Monitoring staff training. Consultation and planning processes involving relevant stakeholders/experts/teams at appropriate timings. | 3 | 3 | Medium | Has Room for improvement | Yes | |
| 7 | Land management | Inappropriate or inadequate infrastructure (e.g. fences, access points, tracks, trails, signage) | External fences and gates not fit for purpose (e.g. for stock containment); no signage in place; inadequate/ineffective Landscape Planning consultation (public and internal stakeholders) | Unauthorised or undesired access causing damage to a site; prohibited activities undertaken; decline in vegetation condition; difficulties in biomass control; increased threat and elevated associated risks of weed incursions, pest animal harbor, human land use impacts; Degradation and potential irreparable damage or loss of MNES and other biodiversity values; risk of non-compliance with related commitments for offset | PCS Projects/PCS Planning/PCS Ops | Reserve consultation, planning and design processes. Annual Ops review process. Consultation with public, internal and external stakeholders. | 3 | 2 | Medium | Adequate | No | Existing infrastructure, including signage relating to Nadjung Mada, present.<br>Infrastructure planning to consider surrounding landscape i.e. maintenance of existing fencing surrounding block no. 739 rather than internal fencing fragmenting landscape. |
| 8 | Land management | Off-target herbicide damage | Inadequate staff or contractor training; spraying not undertaken in suitable weather conditions; timing inappropriate (i.e. missed opportune window for spraying); not having MNES mapped appropriately; insufficient information provided to contractors | Direct damage to native plants; loss of plant species diversity; large areas of damage from herbicide resulting in patches with dead vegetation; decline in vegetation condition; potential damage to and/or loss of MNES values; risk of non-compliance with related commitments for offset | PCS Ops/Contractors | Staff and contractor training. Ensuring reliable, capable and experienced spray contractors are engaged. Periodic review of spray contractor lists. Provision of relevant management timing information to contractors. Training of volunteer groups. Supervision of volunteers by experienced PCS staff. | 2 | 2 | Medium | Adequate | No | |
| 9 | Land management | Damage to biodiversity values resulting from weed or pest management activities | Contractors and/or PCS machinery and vehicles; lack of and non-compliance with quarantine/hygiene protocols; non-compliance with SOPs | Damage to values and other wildlife or plants e.g. seed spread via personnel/vehicles/machinery, direct damage from vehicle or machinery from off-track works, potential incidents from firearms use, potential damage to and/or death of non-target species | PCS Ops/Contractors | Adherence to current PCS protocols, procedures and SOPs. Staff and contractor training. Ensuring reliable, capable and experienced spray contractors are engaged. Periodic review of spray contractor lists.<br>Provision of relevant management timing information to contractors. Training of Parkcare groups. Supervision of volunteers by experienced PCS staff. ACT weeds/Pest strategy. PCS weeds program. Staff and contractor training. Ensuring reliable, capable and experienced spray contractors are engaged. | 2 | 2 | Medium | Adequate | No | |
| 10 | Land management | Incorrect timing of management activities (weed control, slashing and fuel reduction burns) | Unavailable contractors, short window for effective control missed; normal window for control altered due to irregular/altered climatic conditions; lack of contractor training/expertise; failure to consult expert advice and/or follow appropriate guidelines | Damage to values during peak activity time for fauna activity (e.g. GSM during flying season) and peak flowering season for natural temperate grassland community (October to January); potential death of fauna (e.g. threatened SLL) from fire; weeds management ineffective due to timings, resulting in unchanged threat levels. | PCS Ops/CR/PCS Ecologists/Contractors | Staff and contractor training. Ensuring reliable, capable and experienced spray contractors are engaged. Provision of relevant management timing information to contractors. Training of volunteer groups. BOP review through Ecological Fire Group. Biomass management implementation based on prescribed habitat parameters. Herbage mass working group/PCS Ecologists advising PCS Ops/FMU. ACT Weeds Strategy. PCS Weeds program. Staff and contractor training. | 3 | 2 | Medium | Adequate | No | |

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 11 | Land management | Uncertainty around management of complex issues | Conflicting requirements between management regimes and MNES on site (good for one but not all)<br>e.g. Chilean Needle Grass removal and GSM use of CNG for habitat and breeding; ecological grazing for biomass management in nature reserve (as opposed to native species browsing) | Delays in decision making and implementation of management actions; degradation and potential irreparable damage or loss of MNES and other biodiversity values; risk of non-compliance with related commitments for offset; | PCS Ops/CR/PCS Ecologists | PCS Monitoring and Research Program. Trialled management actions. On-going projects/relationships/information sharing with institutions, stakeholders, organisations and Government bodies. | 3 | 4 | High | Has Room for improvement | Yes | Monitoring to occur prior to corrective actions. |
| 12 | Land management | Contractors not available | Seasonal constraints due to high demand; short treatment windows (i.e. time constraints) | Important management programs unable to be completed as scheduled; highly invasive weeds allowed to seed without control at appropriate timing (weeds program not effective); threats not reduced; values not maintained; risk of decline of MNES and other biodiversity values | PCS Ops | Periodic updates of contractor lists. | 2 | 3 | Medium | Has Room for improvement | No | PCS rangers with experience in contractor management. |
| 13 | Land management | Incorrect placement/implementation of bushfire protection/management zones | Incorrect/inadequate planning; failure to follow plans during design implementation | Decline and potential irreparable damage or loss of MNES if zone encroaches offset. | PCS Planning/PCS Ops/FMU | Reserve planning, consultation and design processes. | 3 | 2 | Medium | Adequate | No | |
| 14 | Land management | Incidental impacts to biodiversity values from movement of stock or equipment for biomass control | Moving stock between offset sites/reserves; contractors/lessees/PCS employees, machinery and vehicles; lack of and/or non-compliance with quarantine/hygiene protocols; non-compliance with SOPs; unforeseen accident or incident; stock on site | Potential to spread highly invasive weeds between multiple offset sites via vehicle/person/stock movements, physical disturbance from machinery and/or infrastructure; potential soil compaction; potential damage to regenerating forbs, shrubs and trees; potential damage to restoration project works. | PCS Ops/Contractors/Lessees | Adherence to current PCS protocols, procedures and SOPs. Stock Quarantine Protocols. Staff and contractor training. Provision of relevant management timing information to contractors. Staff and contractor training. Appropriate stock holding/movement infrastructure design. | 3 | 3 | Medium | Adequate | No | |
| 15 | Land management | Unintentional damage to biodiversity values by third party contractors (e.g. power line maintenance) | Third party contractors, machinery and vehicles, failure of contractors to follow instructions from PCS staff, lack of and non-compliance with quarantine/hygiene protocols | Damage to values and other wildlife or plants e.g. spreading seed to sites on persons/vehicles/machinery, direct damage from vehicle or machinery wheels from off-track works | PCS Ops/CR/PCS Ecologists/Lessees | Adherence to current PCS protocols, procedures and SOPs. Staff and contractor training. Signage and infrastructure design. Permit system when works required in reserve (if easement not present) | 3 | 3 | Medium | Has Room for improvement | Yes | |
| 16 | Biomass disturbance | Biomass levels below benchmark | Overgrazing by stock and/or native herbivores; grazier unable to move stock on short notice; non-conservation focussed grazing pressure; timing and intensity of grazing incompatible with vegetation community and objectives; grazing requirements not on paddock to paddock scale; lack of communication between grazier and PCS staff; lack of grazing plan | Degradation and potential irreparable damage or loss of MNES and other biodiversity values; decline in vegetation condition; vegetation structure below benchmark; subsequent decline in native species richness and forb diversity; impacts to SLL habitat and population; risk of non-compliance with related commitments for offset | PCS Ops/CR/PCS Ecologists/Lessees | PCS Offsets Monitoring Program. Environmental Offsets Adaptive Management Strategy. BOP Review process, Ops annual planning, Fire Ecology Working Group process, Herbage Mass Working Group process | 3 | 2 | Medium | Adequate | No | |

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 17 | Biomass disturbance | Biomass levels above benchmark | Excess vegetative growth in NTG, native pasture and mixed and exotic dominance areas; difficulties accessing stock at required time; failure to enact appropriate biomass disturbance method or incorrect timing | Degradation and potential irreparable damage or loss of MNES and other biodiversity values; decline in site values; decline in vegetation structure; build-up of smothering thatch and subsequent decline in native species richness and forb diversity; decline in NTG, GSM and SLL habitat condition; risk of not meeting related commitments for offset | PCS Ops/CR/PCS Ecologists/Lessees | PCS Offsets Monitoring Program. Environmental Offsets Adaptive Management Strategy. BOP Review process, Ops annual planning, Fire Ecology Working Group process, Herbage Mass Working Group process | 3 | 3 | Medium | Has Room for improvement | No | |
| 18 | Biomass disturbance | Inappropriate biomass disturbance regime (e.g. grazing with conservation focused agistment, slashing or ecological burn) | Timing of burn, grazing, slashing or other method not within recommended windows, or incompatible with values; inappropriate frequency of disturbance regime; inadequate contractor training/expertise; failure to consult expert advice and/or follow guidelines for appropriate scheduled disturbance (e.g. CSIRO framework for grazing as a tool for biodiversity conservation in temperate grassy ecosystems) | Potential damage to and/or loss of MNES values; direct threat to MNES values during peak activity/breeding time for fauna and peak flowering for flora (October to January) e.g. death of SLL in fire, impact on GSM during peak flying season, impacts on NTG during peak flowering period; decline in NTG, GSM and SLL habitat condition; unchanged or increased threat levels from biomass accumulation due to incorrect timing; unchanged threat levels from biomass accumulation; risk of non-compliance with related commitments for offset | PCS Ops/CR/PCS Ecologists/Lessees | PCS Offsets Monitoring Program. Environmental Offsets Adaptive Management Strategy, BOP Review process, Ops annual planning, Fire Ecology Working Group process, Herbage Mass Working Group process | 3 | 3 | Medium | Adequate | No | |
| 19 | Biomass disturbance | Inappropriate fuel hazard reduction regime | Failure to consult expert ecologists and/or follow advice from CR; lack of planning and consultation with appropriate stakeholders; fuel hazard reduction not undertaken with conservation as primary consideration. | Degradation and potential irreparable damage or loss of MNES and other biodiversity values; decline in vegetation condition within NTG (incl. GSM and SLL habitat); risk of non-compliance with related commitments for offset; not meeting fire management zoning specifications | PCS Ops/CR/PCS Ecologists/FMU | BOP Review process, Ops annual planning, Fire Ecology Working Group process, Herbage Mass Working Group process, PCS Offsets Monitoring Program. Environmental Offsets Adaptive Management Strategy | 3 | 3 | Medium | Adequate | No | |
| 20 | Biomass disturbance | Appropriate biomass disturbance regime unable to be carried out | Access/site specific issues; unforeseen circumstances; weather not conducive to disturbance regime (e.g. wet weather impeding slashing machinery, conditions during burn season not appropriate for implementation of ecological burn); unable to access grazing license/lease arrangement in a timely manner | Potential damage to and/or loss of MNES values; decline in site values; build-up of smothering thatch and subsequent decline in native species richness and forb diversity; decline in NTG, GSM and SLL habitat condition; risk of non-compliance with related commitments for offset | PCS Ops/Contractors | BOP Review process, Ops annual planning, Fire Ecology Working Group process | 3 | 3 | Medium | Has Room for improvement | Yes | |
| 21 | Land and water | Erosion and streambank destabilisation | Lack of or inadequate planning or riparian vegetation; hard hooved livestock; lack of infrastructure (e.g. stock exclusion fencing or additional waterpoints); extreme rainfall events; overland flow, high flows in gully area | Loss of topsoil; sheet erosion and exposure of bare ground; erosion in gully areas promoting reduced water quality flow off the site | PCS Ops/Planning | PCS Offsets Monitoring Program. Rehabilitation and revegetation project planning and implementation. Appropriate reserve infrastructure planning and design. Biomass management planning. Appropriate ecological grazing planning. | 2 | 1 | Medium | Adequate | No | |
| 22 | Land and water | Disturbed soil profiles | Vehicle disturbance; foot traffic; mismanagement of ecological grazing; impacts from management activities (e.g. removal of woody weeds/trees) | Reduced infiltration, reduced root growth capacity; potential for erosion; increase in weed seed bank germination; degradation of site values | PCS Ops/Planning/Projects | PCS Offsets Monitoring Program. Rehabilitation project planning and implementation. 'No vehicle' policies on select reserves and after heavy rain events. 'On track' vehicle policy. Contractor and staff education and training. Appropriate reserve infrastructure planning and design. | 2 | 2 | Medium | Adequate | No | |

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 23 | Land and water | Altered soil nutrient levels | Past agricultural land practices (e.g. fertilizer addition, grazing regime); mismanagement of ecological grazing; elevated nutrient levels through surface runoff and/or stormwater network flows | Increased growth competition of exotic species; resulting inability of natives to compete in high nutrient areas; persistence of undesirable exotic species; risks to grassland restoration project success; loss of NTG and BGW values through dominance of exotic groundcover; decline in native species richness and forb diversity; risk of non-compliance with related commitments for offset | PCS Ops/Planning/Ecologists | PCS Monitoring and Research Program. Trialled management actions for ecological grazing programs and management actions for targeted reduction of nutrients. | 3 | 4 | High | Has Room for improvement | No | |
| 24 | Land and water | Bushfire event | Climatic influences elevating fire risk; annual planned fuel and hazard reduction activity delayed or not met; poorly maintained equipment; deliberate ignition; other occurrence of unforeseen event (lightning strikes) | Decline and potential irreparable damage or loss of MNES; damage to infrastructure; loss of livestock; media scrutiny; EPSDD/PCS reputation compromised | PCS/FMU | PCS Offsets Monitoring program. Herbage Mass Group. PCS Fire Unit. Community education. | 3 | 2 | Medium | Adequate | No | |
| 25 | Human land use impacts | Increased/inappropriate recreation and tourism | Lack of planning for management of public use, lack of infrastructure in place to guide reserve use, lack of/inappropriate education, recreation and tourism programs; incompatibility between public access and MNES values | Visitors non-compliant with site restrictions e.g. prohibited activities such as the use of chainsaws resulting in loss of trees/woody debris from site; interference with management or monitoring programs; degradation of site values through increased disturbance, soil compaction, facilitation of weed spread, increased traffic in high quality areas; underutilisation of education possibilities | PCS Planning, PCS Community and Visitors, PCS Projects, PCS Ops | Consultation and planning to inform reserve and infrastructure design, future usage, PCS education program development, PCS Community and Visitors Program. Community Education. Signage. Activities declaration | 2 | 3 | Medium | Adequate | No | |
| 26 | Human land use impacts | Waste and/or contamination present (e.g. general rubbish, building waste, asbestos, garden waste, contaminated soil and/or water) | Illegal dumping of waste from public, flooding, chemical run-off into waterways from adjacent residential or commercial premises, inherited site contamination (pre-PCS custodianship) | Contamination of soil; contamination of water bodies on site; human contact with contamination or hazardous materials; exotic or weed species establishment, delays, restrictions, and/or inability to implement restoration and management actions. | PCS/TCCS | Preliminary assessments of Offset sites undertaken. Unexpected finds protocol in place. Community education and signage. Restoration project implementation | 1 | 2 | Low | Adequate | No | |
| 27 | Human land use impacts | Illegal hunting and/or poaching of native wildlife | Illegal activities by members of the public | Potential taking of MNES values (e.g. Striped Legless Lizard) from site for captive trade illegally; potential incident from illegal hunting activities (e.g. rouge gunshots from firearms or other deadly weapon use close to residential estate); damage and potential irreparable loss of MNES and other biodiversity values | PCS Ops | Community Education. Signage. Activities declaration | 4 | 1 | Medium | Adequate | No | |
| 28 | Human land use impacts | Physical disturbance from visitors/community access, such as trampling/disturbance/compaction of flora and fauna (e.g. unauthorised recreation trails, rock stacking and rock turning) | Visitors (members of the public, employees, contractors) creating unauthorised recreation trails, rock stacking, rock turning, access by vehicles etc. | Damage and potential irreparable loss of MNES values; potential decline in MNES values through increased disturbance, soil compaction, facilitation of weed spread, increased traffic in high quality areas; risk of non-compliance with related commitments for offset | PCS Ops/Icon Water/Contractors | Community Education. Signage. Activities declaration. Appropriate Reserve infrastructure design. | 3 | 2 | Medium | Adequate | No | |

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 29 | Human land use impacts | Illegal removal of rock, fallen logs or coarse woody debris (CWD) addition | Firewood collection, recreational bivouac creation and rock removal by the public | Degradation of BGW or NTG habitat values; direct removal of habitat for MNES or other fauna values; CWD below benchmark level | PCS Ops | Community Education. Signage. Activities declaration | 2 | 3 | Medium | Adequate | No | |
| 30 | Human land use impacts | Presence of domestic animals (cats and dogs) | Members of the public e.g. dog walkers; un-contained domesticated or stray cats and dogs | Predation of fauna values such as mammals, birds, lizards and invertebrates (including threatened species); damage to values and other wildlife from dogs off-leash (e.g. dog attack of native Eastern Grey Kangaroo); potential spread of disease; potential threat to visitors | PCS Ops | Community Education. Signage. Activities declaration | 2 | 3 | Medium | Has Room for improvement | No | |
| 31 | Human land use impacts | Incompatible adjacent land use (Urban edge effects) | Weed/non-native plant incursion from domestic gardens; management of nature strips by surrounding land custodians; gardens residential and commercial properties; adjacent farming property and stock; inadequate consultation and review during offset establishment/development processes | Weed ingress (particularly ALG) from mowing regime; degradation of site values; loss of site connectivity; potential to spread weeds between offset sites via vehicle/person/stock movements | PCS Ops/TCCS/PCS Projects/ PCS Planning | Appropriate design of reserve and surrounding infrastructure. Landscape design processes. Review and consultation during offset establishment/development process. Negotiations with surrounding stakeholders and land managers (e.g. TCCS, private landholders and lessees) to reduce risk levels through mutually agreed actions/land management practices. | 3 | 3 | Medium | Has Room for improvement | Yes | |
| 32 | Fragmentation | Degraded native plant floristic diversity | Small patches; Irregular shaped patches; Invasive plants; pest animals; inappropriate biomass management; inappropriate fire management; inappropriate disturbance regimes; off-target spray damage; human land use impacts; climatic influences. | Decline and potential irreparable damage or loss of MNES; NTG not meeting EPBC criteria; loss/reduction in MNES fauna habitat extent; not meeting restoration targets; decline in vegetation condition; vegetation structure below benchmark; risk of non-compliance with related commitments for offset | PCS Ops/Planning/Ecologists | PCS Offsets monitoring program. PCS Weeds program. PCS Vertebrate Pests program. PCS Herbage mass group. PCS ecological fire management group. Landscape Planning. Annual Ops planning. Restoration Planning. | 2 | 3 | Medium | Has Room for improvement | No | |
| 33 | Fragmentation | Degraded habitat structure | Small patches; Irregular shaped patches; Invasive plants; pest animals; inappropriate biomass management; inappropriate fire management; inappropriate disturbance regimes; off-target spray damage; human land use impacts; climatic influences. | Decline and potential irreparable damage or loss of MNES; NTG not meeting EPBC criteria; loss/reduction in MNES fauna habitat extent; not meeting restoration targets; decline in vegetation condition; vegetation structure below benchmark; risk of non-compliance with related commitments for offset | PCS Ops/Planning/Ecologists | PCS Offsets monitoring program. PCS Weeds program. PCS Vertebrate Pests program. PCS Herbage mass group. PCS ecological fire management group. Landscape Planning. Annual Ops planning. Restoration Planning. | 4 | 3 | High | Has Room for improvement | No | |
| 34 | Fragmentation | Degraded connectivity of remnant habitat patches within the site | Small patches; Irregular shaped patches; Agricultural modification; site ripping for tree plantings; weed incursions; inappropriate biomass management; inappropriate fire management; inappropriate disturbance regimes; off-target spray damage; human land use impacts; climatic influences; inappropriate infrastructure (e.g. fencing). | Decline and potential irreparable damage or loss of MNES; NTG not meeting EPBC criteria; loss/reduction in MNES fauna habitat extent; not meeting restoration targets; decline in vegetation condition; vegetation structure below benchmark; risk of non-compliance with related commitments for offset | PCS Ops/Planning/Ecologists | PCS Offsets monitoring program. PCS Weeds program. PCS Vertebrate Pests program. PCS Herbage mass group. PCS ecological fire management group. Landscape Planning. Annual Ops planning. Restoration Planning. | 3 | 3 | Medium | Has Room for improvement | No | |

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 35 | Fragmentation | Degraded connectivity of remnant habitat patches within the landscape | Patches of habitat disconnected by infrastructure (e.g. roads, residential/commercial developments); agricultural modification; site ripping for tree plantings; weed incursions; inappropriate biomass management; inappropriate fire management; inappropriate disturbance regimes; off-target spray damage; human land use impacts; climatic influences | Decline and potential irreparable damage or loss of MNES; NTG not meeting EPBC criteria; loss/reduction in MNES fauna habitat extent; not meeting restoration targets; decline in vegetation condition; vegetation structure below benchmark; risk of non-compliance with related commitments for offset | PCS Ops/Planning/Ecologists | PCS Offsets monitoring program. PCS Weeds program. PCS Vertebrate Pests program. PCS Herbage mass group. PCS ecological fire management group. Landscape Planning. Annual Ops planning. Restoration Planning. | 3 | 3 | Medium | Has Room for improvement | Yes | |
| 36 | Fragmentation | Small populations susceptible to genetic bottlenecks | Habitat fragmentation resulting in small population sizes with no opportunity for dispersal (e.g. road barriers); human land use impacts; further decrease in already small population size of MNES value due to development, climate change etc.; unknown causes | Loss of viability of small populations and potential complete loss of populations from the site/landscape (e.g. localised extinction of Grassland Earless Dragon from offset sites); decline and potential loss of MNES; risk of non-compliance with related commitments for offset | PCS Ops/Planning/Ecologists | PCS Offsets monitoring program. PCS Weeds program. PCS Vertebrate Pests program. PCS Herbage mass group. PCS ecological fire management group. Landscape Planning. Annual Ops planning. Restoration Planning. | 3 | 4 | High | Has Room for improvement | No | |
| 37 | Fragmentation | Increased competition for resources | Degraded connectivity within the site and broader landscape; degraded habitat structure; degraded floristic diversity; reduction in suitable habitat extent; pest plants and animals; inter- and intra-specific species competition; translocated populations (e.g. SLL translocations) | Reduction in fauna populations; additional pressure on NTG and BGW habitat values; decline and potential loss of MNES; risk of non-compliance with related commitments for offset | PCS Ops/Planning/Ecologists | PCS Offsets monitoring program. PCS Weeds program. PCS Vertebrate Pests program. PCS Herbage mass group. PCS ecological fire management group. Landscape Planning. Annual Ops planning. Restoration Planning. | 2 | 3 | Medium | Adequate | No | |
| 38 | Climate change | Sustained shifts in average seasonal temperature or seasonal precipitation affecting range suitability | Climatic influences. | Potential loss of MNES values from inability to adapt to increasing temperatures and decrease in suitable habitat ranges; habitat fragmentation due to species' inability to migrate (e.g. loss of Key BGW overstory species); compounding of other threats - increased fire risk, seasonal food source disruption, disruption of life cycle events, species development, increase/decrease of mortality leading to under/overabundance of species causing changes in species abundance, distribution and genetics over longer term; migration of native fauna species away from natural range/off site | PCS Ecologists | PCS Offsets Monitoring, Research and Reporting process. Environmental Offsets Adaptive Management Strategy | 3 | 5 | High | Adequate | No | Review and update of OMP and risk register as required. |

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 39 | Climate change | Sustained increase in the average number of extreme weather events (flood, fire, drought, damaging winds) | Climatic influences. | Inability to undertake monitoring within required optimal timeframes; shifts in monitoring timelines, increasing overlap in surveys to be undertaken (with shortened windows of optimal weather); potential damage to MNES values and associated habitat; potential loss of MNES values from lack of resilience/ability to adapt to extreme weather events; compounding of other threats - increased fire risk, seasonal food source disruption, disruption of life cycle events, species development, increase/decrease of mortality leading to under/overabundance of species causing changes in species abundance, distribution and genetics over longer term; migration of native fauna species away from natural range/off site | PCS Ecologists | PCS Offsets Monitoring, Research and Reporting process. Environmental Offsets Adaptive Management Strategy | 4 | 5 | Extreme | Adequate | No | Review and update of OMP and risk register as required. |
| 40 | Climate change | Unknown or differential reaction from MNES to management actions | Climatic conditions altering "normal processes" | Potentially induce a decline in a parameter when an increase was expected; risk of non-compliance with related commitments for offset | PCS Ecologists | PCS Offsets Monitoring, Research and Reporting process. Environmental Offsets Adaptive Management Strategy | 4 | 4 | High | Adequate | No | Review and update of OMP and risk register as required. |
| 41 | Climate change | Damage to offset from natural disaster (e.g. bushfire, flooding, storm surge) | Climatic conditions | Degradation and potential irreparable damage or loss of MNES and other biodiversity values; damage to infrastructure | PCS Operations | PCS Offsets Monitoring, Research and Reporting process. | 3 | 4 | High | Adequate | No | Review and update of OMP and risk register as required. |
| 42 | Climate change | Uncertainty in seasonal impacts (e.g. delay or early onset of flowering of forbs, unavoidable dry season with low forb diversity and difficulty in ID of plants) | Insufficient diagnostic material to accurately identify plants; lack of staff highly experienced in vegetation monitoring and local knowledge | Monitoring metrics not representative of ecological community; inability to determine if MNES and other biodiversity values have improved or declined; risk of non-compliance with offset commitments OR false reporting on compliance/non-compliance | PCS Ecologists/PCS Planning | PCS Offsets Monitoring, Research and Reporting process. | 3 | 1 | Medium | Adequate | No | Review and update of OMP and risk register as required. |
| 43 | Pest or controlled native animals | Presence of introduced European Rabbits (Oryctolagus cuniculus) and/or Hares (Lepus europaeus) | Existing population or movement/colonisation from adjacent areas. | Degradation and potential irreparable damage or loss of MNES and other biodiversity values; degradation of site values through increased disturbance; facilitation of weed spread; high grazing pressure on high quality areas; destruction of site values from warren creation, impact on and damage to restoration works. | PCS Operations | PCS Vertebrate Pest Program. Appropriate location, design and management of reserve infrastructure. | 3 | 3 | Medium | Adequate | Yes | |

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 44 | Pest or controlled native animals | Presence of feral goat (Capra hircus) | Existing population or movement/colonisation from adjacent areas. | Degradation and potential irreparable damage or loss of MNES and other biodiversity values; degradation of site values through increased disturbance; facilitation of weed spread; increased grazing pressure on high quality areas; destruction of site values from browsing/stripping of vegetation; impact on/damage to restoration works. | PCS Operations | PCS Vertebrate Pest Program. Appropriate location, design and management of reserve infrastructure. | 3 | 2 | Medium | Adequate | No | |
| 45 | Pest or controlled native animals | Presence of introduced European Red Fox (Vulpes vulpes) | Existing population or movement/colonisation from adjacent areas. | Predation of fauna values such as birds, lizards and invertebrates (including threatened species); potential spread of disease | PCS Operations | PCS Vertebrate Pest Program. Appropriate location, design and management of reserve infrastructure. | 3 | 3 | Medium | Adequate | Yes | |
| 46 | Pest or controlled native animals | Presence of feral cat (Felis catus) | Existing population or movement/colonisation from adjacent areas. | Predation of fauna values such as birds, lizards and invertebrates (including threatened species); potential spread of disease | PCS Operations | PCS Vertebrate Pest Program. Appropriate location, design and management of reserve infrastructure. | 3 | 3 | Medium | Adequate | Yes | |
| 47 | Pest or controlled native animals | Presence of feral Pig (Sus scrofa) | Existing population or movement/colonisation from adjacent areas. | Degradation and potential irreparable damage or loss of MNES and other biodiversity values; potential to spread highly invasive weeds; damage to site values from rooting and feeding; potential soil compaction; potential damage to regenerating forbs, shrubs and trees from selective feeding; potential spread of disease; faecal contamination of waterways from wallowing; predation and competition with native species | PCS Operations | PCS Vertebrate Pest Program. Appropriate location, design and management of reserve infrastructure. | 2 | 1 | Low | Adequate | No | |
| 48 | Pest or controlled native animals | Presence of wild dog (Canis lupus) | Existing population or movement/colonisation from adjacent areas. | Predation of fauna values such as mammals, birds, lizards and invertebrates (including threatened species); potential spread of disease; potential threat to visitors | PCS Operations | PCS Vertebrate Pest Program. Appropriate location, design and management of reserve infrastructure. | 2 | 1 | Low | Adequate | No | |

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 49 | Pest or controlled native animals | Presence of introduced Red, Sambar and Fallow Deer (Cervus elaphus, Rusa unicolor and Dama dama) | Existing population or movement/colonisation from adjacent areas. | Degradation and potential irreparable damage or loss of MNES and other biodiversity values; potential to spread highly invasive weeds; damage to site values from feeding, ring-barking and antler rubbing; potential soil compaction; potential damage to regenerating forbs, shrubs and trees from selective feeding; potential spread of disease; faecal contamination of waterways from wallowing; grazing competition with native species | PCS Operations | PCS Vertebrate Pest Program. Appropriate location, design and management of reserve infrastructure. | 2 | 1 | Low | Adequate | No | |
| 50 | Pest or controlled native animals | Presence of introduced feral European Wasp (Vespula germanica) | Existing population or movement/colonisation from adjacent areas. | Competition with native insects for resources; predation on native insects; disruption of natural pollination processes through predation on native pollinators; potential spread of parasites and disease; potential threat to visitors and recreational activities from swarms | PCS Operations | PCS Pest Program. Appropriate location, design and management of reserve infrastructure. | 1 | 1 | Low | Adequate | No | |
| 51 | Pest or controlled native animals | Presence of introduced feral European Honey Bees (Apis mellifera) | Existing population or movement/colonisation from adjacent areas. | Competition with native bees and insects for resources; disruption of natural pollination processes; potential spread of parasites and fungal disease; potential to help spread exotic weeds | PCS Operations | PCS Pest Program. Appropriate location, design and management of reserve infrastructure. | 1 | 1 | Low | Adequate | No | |
| 52 | Pest or controlled native animals | Presence of introduced Common Mynahs (Acridotheres tristis) | Existing population or movement/colonisation from adjacent areas. | Decline in diversity and/or abundance of bird community through reduced resource availability, reduced breeding success in hollow-nesting birds and mammals. | PCS Operations | PCS Offsets monitoring program. PCS Vertebrate pests program. | 1 | 2 | Low | Adequate | No | |
| 53 | Pest or controlled native animals | Over-abundant (> 0.6 birds per hectare) native pest species Noisy Miners (Manorina melanocephala) | Existing population or increased movement/colonisation from adjacent areas. | Decline in diversity and/or abundance of small bird community | PCS Ops/CR/PCS Ecologists | PCS Offsets monitoring program. PCS Offsets Monitoring and Research Plan | 1 | 2 | Low | Adequate | No | |

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 54 | Pest or controlled native animals | Over-abundant native herbivore Eastern Grey Kangaroo (Macropus giganteus) | Existing population or increased movement/colonisation from adjacent areas. | Degradation and potential irreparable damage or loss of MNES and other biodiversity values; decline in vegetation condition and loss of native plant species richness and forb diversity; vegetation structure below benchmark due to overgrazing; risk of non-compliance with related commitments for offset | PCS Ops/CR/PCS Ecologists | PCS Offsets monitoring program. KMP | 3 | 3 | Medium | Adequate | Yes | |
| 55 | Pest plants | Establishment and spread of invasive C3 grasses (Serrated Tussock Nassella trichotoma) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock or domestic animals). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Weeds program. PCS Offsets vegetation monitoring. | 4 | 3 | High | Has Room for improvement | Yes | |
| 56 | Pest plants | Establishment and spread of invasive C3 grasses (Wild oats Avena sp.) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock or domestic animals). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Offsets vegetation monitoring. | 3 | 3 | Medium | Has Room for improvement | Yes | |
| 57 | Pest plants | Establishment and spread of invasive C3 grasses (Chilean Needle Grass Nassella neesiana) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock or domestic animals). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Weeds program. PCS Offsets vegetation monitoring. | 4 | 3 | High | Has Room for improvement | Yes | |
| 58 | Pest plants | Establishment and spread of invasive C3 grasses (Phalaris Phalaris aquatica) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock, feral or domestic animals). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Weeds Program. Biomass reduction program. | 2 | 4 | Medium | Has Room for improvement | Yes | |

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 59 | Pest plants | Establishment and spread of invasive C4 grasses (African Lovegrass Eragrostis curvula) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock, feral or domestic animals). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Weeds program. PCS Offsets vegetation monitoring. | 4 | 3 | High | Has Room for improvement | Yes | |
| 60 | Pest plants | Establishment and spread of invasive Broadleaf weeds (Saffron Thistle Carthamus lanatus) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock, feral or domestic animals). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Weeds program. PCS Offsets vegetation monitoring. | 3 | 4 | High | Has Room for improvement | Yes | |
| 61 | Pest plants | Establishment and spread of invasive Broadleaf weeds (Scotch Thistle Onopordum acanthium) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock, feral or domestic animals). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Weeds program. PCS Offsets vegetation monitoring. | 3 | 4 | High | Has Room for improvement | Yes | |
| 62 | Pest plants | Establishment and spread of invasive Broadleaf weeds (St John's Wort Hypericum perforatum) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock, feral or domestic animals). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Weeds program. PCS Offsets vegetation monitoring. PCS Offsets Monitoring and Research Plan | 4 | 4 | High | Has Room for improvement | Yes | |
| 63 | Pest plants | Establishment and spread of invasive Broadleaf weeds (Great Mullein Verbascum thapsus) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock, feral or domestic animals). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Weeds program. PCS Offsets vegetation monitoring. | 3 | 3 | Medium | Has Room for improvement | Yes | |

| Directorate: Environment, Planning & Sustainable Development (EPSDD) | | | | | Agency / PCS Environmental Offsets Planning, Monitoring, and Research Team Branch / Event: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk Reference Number | Risk Category | The Risk: | Source: | Impact / Outcome | Risk Owner | Risk Controls Currently in Place | Risk Rating | | | Control Effectiveness Rating | Further Treatments (Y/N) | Comments |
| | | | | | | | Consequence (1-5) | Likelihood of Consequence (1-5) | Inherent Risk Rating | | | |
| 64 | Pest plants | Establishment and spread of invasive Broadleaf weeds (Patterson's Curse Echium plantagineum) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock, feral or domestic animals). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Weeds program. PCS Offsets vegetation monitoring. | 3 | 3 | Medium | Has Room for improvement | Yes | |
| 65 | Pest plants | Establishment and spread of invasive Woody weeds (Blackberry Rubus fruticosus) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock, feral or domestic animals). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Weeds program. PCS Offsets vegetation monitoring. | 4 | 3 | High | Has Room for improvement | Yes | |
| 66 | Pest plants | Establishment and spread of invasive Woody weeds (Sweet Briar Rosa rubinginosa) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock, feral or domestic animals). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Weeds program. PCS Offsets vegetation monitoring. | 3 | 4 | High | Has Room for improvement | Yes | |
| 67 | Pest plants | Establishment and spread of invasive Woody weeds (Radiata pine Pinus radiata) | Existing population, seed spread from adjacent site/s, seed brought in on vehicles/persons or animals (wildlife, stock or domestic pets). | Degradation of site values; loss of habitat and connectivity; loss of NTG and BGW values through dominance of exotic groundcover; establishment and spread of highly invasive weed; potential to spread between multiple offset sites via vehicle/person/stock movements; risk of non-compliance with related commitments for offset | PCS Offsets Operations/PCS Offsets Monitoring | PCS Weeds program. PCS Offsets vegetation monitoring. | 1 | 1 | Low | Adequate | No | |

# Appendix D – COMMITMENTS MADE WITHIN THIS OMP

Appendix D – COMMITMENTS MADE WITHIN THIS OMP

| PCS Commitments | Description | Timeframe | Section |
|---|---|---|---|
| **Maintain quality and extent of SLL habitat within West Kenny** | Maintain ecological condition of existing SLL habitat (12.2 ha) | Until 30 June 2052 | 2.0 |
| | Maintain extent and connectivity of SLL habitat | Until 30 June 2052 | 2.0 |
| **Mitigation of public land use impacts** | 1. Activities Declarations (which are notifiable instruments under the Nature Conservation Act) must be brought into effect for West Kenny | Post Nature Reserve establishment and MPA process | 6.0 |
| | 2. Activities Declaration (AD) signage must be displayed at the entrances to the site. | Post Nature Reserve establishment and MPA and AD process | 6.0 |
| **Mitigation of impacts relating to Kenny suburb development** | 1. Liaise with relevant stakeholders (SLA, Icon Water) as required to avoid impacts associated with Kenny Suburb development (e.g. sewer line duplication). | Ongoing | 6.0 |
| **Integration with the Canberra Nature Park Reserve Management Plan** | 1. Manage West Kenny as part of Canberra Nature Park in accordance with the Canberra Nature Park Reserve Management Plan and other relevant ACT legislation, policy, strategies, and plans. | Ongoing | 6.0 |
| **Engagement with Ngunnawal community and other peoples** | Work with the Dhawura Ngunnawal Caring for Country Committee (or an equivalent committee) and other peoples to: | | |
| | 1a. Consult with Ngunnawal community and other peoples to identify and implement Ngunnawal cultural values and aspirations for the management of the Reserve.<br>Identify the Ngunnawal and other peoples tangible and intangible values; | Ongoing | 6.0 |
| | 1b. Consult with Ngunnawal community to investigate options for implementing Ngunnawal and other peoples cultural practices within management; | Ongoing | 6.0 |
| | 1c. Consult with Ngunnawal community to recognise men's and women's business and culturally sensitive areas within West Kenny if applicable. | Ongoing | 6.0 |
| | 2. Consider requirements to implement a Ngunnawal name for the Reserve. | To be addressed alongside MPA process. | 6.0 |
| | 3. Adhere to the ACT Aboriginal and Torres Strait Islander Agreement 2019-2028 (ACT Government and Aboriginal and Torres Strait Islander Elected Body 2019) and the Ngunnawal CED action plan phase one extension (ACT Government 2019b). | Ongoing | 6.0 |

Appendix D – COMMITMENTS MADE WITHIN THIS OMP

| PCS Commitments | Description | Timeframe | Section |
|---|---|---|---|
| **Management of heritage values** | 1. ACT Heritage Council advice must be obtained for proposed operational or habitat restoration works which could potentially impact any heritage places or objects. Approvals under the *Heritage Act 2004* may also be required where activities may damage Traditional Custodians places or objects, as identified in Council advice or heritage assessments. | PCS to engage suitably qualified expert if required | 6.0 |
| **Bushfire risk mitigation** | 1. During the ACT fire season (October-March, subject to seasonal variation), maintain biomass to ACT Bushfire Fuel Management Standards as described within the ACT Strategic Bushfire Management Plan 2025-2030 (SBMP) (ACT Government 2025), within the offset site and broader management area. | Ongoing | 6.0 |
| | 2. Any changes of management practices following a review of the SBMP must be implemented. | Ongoing | 6.0 |
| **Annual reporting** | 1. Fulfil all reporting commitments as identified in EPBC approval 2020/8768. | iCBR – from date of the approval decision until completion of action.<br>PCS – Annually, within 20 business days of the Annual Compliance Report period (ACR Period), commencing at the completion of the action. | 6.0<br>7.2.1 |
| **Manage Pest Plants** | 1. Pest plant management will be planned, implemented and monitored adhering to the most current ACT Invasive Plants Implementation Plan | Until 30 June 2052 | 6.0 |
| | 2. Carry out regular field investigations to identify the location of any pest plant incursions within the offset site and broader management area. | Until 30 June 2052 | 6.0 |
| | 3. Maintain accurate records for all pest plant operations and control programs. | Until 30 June 2052 | 6.0 |
| **Manage Pest Animals** | 1. Pest animal management will be planned, implemented and monitored in coordination with the adjacent Nadjung Mada Reserve adhering to the ACT Pest Animal Management Strategy and the most current PCS Operations plans. | Until 30 June 2052 | 6.0 |
| | 2. Carry out regular field investigations to identify the location of any pest animal incursions within the offset site and broader management area. | Until 30 June 2052 | 6.0 |
| | 3. Maintain accurate records for all pest animal operations and control programs. | Until 30 June 2052 | 6.0 |



Appendix D – COMMITMENTS MADE WITHIN THIS OMP

| PCS Commitments | Description | Timeframe | Section |
|---|---|---|---|
| **Manage appropriate herbage mass disturbance regime** | 1. Maintain biomass, within the offset site and broader management area, in accordance with SLL requirements, Ecological Guidelines (ACT Government 2019a) and ACT Bushfire Management Standards (ACT Government 2025). | Until 30 June 2052 | 6.0 |
| **Manage identified human land use impacts** | 1. PCS staff must follow the 'On track' vehicle policy. No vehicle will enter the Reserve after heavy rain events. Only essential vehicles will enter the Reserve. | Until 30 June 2052 | 6.0 |
| | 2. Liaise with relevant asset owners to review maintenance requirements and implement mechanisms to reduce risk of third party damage (e.g. Memorandum of Understanding, permits). | Ongoing | 6.0 |
| **Trails and tracks** | 1. Review tracks and trails within West Kenny and locate appropriately outside of MNES areas where required. | Ongoing | 6.0 |
| **Gate and fence infrastructure** | 1. Review gate locations and establish safe management access points outside of MNES areas if required. | 2026 | 6.0 |
| | 2. Annual operations planning to review management access, modifications and repairs to existing fencing where required. Priority is to protect areas of higher vegetation quality. Potential impacts from Kenny sewer line duplication and maintenance access will be considered. | 2026 | 6.0 |
| **Signage** | Design, construct and install reserve signage to identify the Reserve to the public including use-related information (noting existing signage associated with Nadjung Mada is present at access gates to Old Well Station Road). | 2026/2027 | 6.0 |
| **Maintain the quality and extent of SLL habitat** | Use slashing, ecological grazing management, fencing, plantings and eco-burns, within the offset site and broader management area, to manage herbage mass as per the EOAMS (ACT Government 2021)<br>Herbage mass management will be consistent with the Section 21 of the Ecological Guidelines for Fire, Fuel and Access management Operations (ACT Government 2019a). | Until 30 June 2052 | 6.0 |
| **MNES Values** | Monitor MNES values in accordance with the M&R Plan (ACT Government 2017), detailed within the Environmental Offsets Ecological Monitoring Program Report 2018-19 (ACT Government 2020a). | As specified in M&R Plan | 6.0 |

Appendix D – COMMITMENTS MADE WITHIN THIS OMP

| PCS Commitments | Description | Timeframe | Section |
|---|---|---|---|
| **Monitoring weed threats and biomass** | 1. Monitor weed threats and biomass, within the offset site and broader management area, in accordance the Herbage Mass Guidelines (ACT Government 2020b), M&R Plan Monitoring Schedule (ACT Government 2017) and as detailed in the Environmental Offsets Ecological Monitoring Program Report 2018-19 (ACT Government, 2020a). | Until 30 June 2052 | 6.0 |
| **Vertebrate Pest Monitoring (rabbit, cat, and fox)** | 1. Undertake pest monitoring in accordance with broader PCS invertebrate pest programs. | Until 30 June 2052 | 6.0 |
| **Corrective action monitoring** | 1. Corrective actions are to be informed by findings of the annual monitoring program. Where monitoring detects results that exceed trigger values, PCS will workshop appropriate corrective actions. Consideration should be given to natural variability before corrective actions are implemented. | Until 30 June 2052 | 6.0 |