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Attn: Libby Gordon

Design and Development,
Parks and Conservation,
Territory and Municipal Services Directorate

12 December 2012

Reference Number: 12CANECO-0004

Dear Ms Gordon

Re: Canberra Centenary Trail Targeted Survey

The ecological assessment report for the Canberra Centenary Trail (CCT) project (Eco Logical 2012) identified the need to undertake further survey for a number of threatened species considered as having potential to occur within the proposed alignment. The species identified as requiring additional survey were:

- Small Purple-Pea (*Swainsona recta*)
- Button Wrinklewort (*Rutidosis leptorrhynchoides*)
- Austral Toadflax (*Thesium australe*)
- Hoary Sunray (*Leucochrysum albicans* var. *tricolor*)
- Canberra Spider Orchid (*Arachnorchis actensis*)
- Pink-tailed Worm Lizard (*Aprasia parapulchella*)

The results of the targeted survey are provided in an appendix to this letter. If you wish to discuss any issues regarding this project, please don't hesitate to give me a call.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Andrew Brodie".

Andrew Palmer-Brodie

Environmental Consultant

Eco Logical Australia, Canberra

Appendix A – Targeted Survey

Eco Logical Australia was contracted to undertake targeted surveys of the Canberra Centenary Trail alignment in spring 2012. The species listed below in Table 1 were targeted during these surveys.

Table 1 Optimum survey period for target species

Species	Optimum Survey Period
Small Purple-Pea (<i>Swainsona recta</i>)	September - November
Button Wrinklewort (<i>Rutidosia leptorrhynchoides</i>)	November – December
Austral Toadflax (<i>Thesium australe</i>)	Spring - Summer
Hoary Sunray (<i>Leucochrysum albicans</i> var. <i>tricolor</i>)	September – November
Canberra Spider Orchid (<i>Arachnorchis actensis</i>)	September-October
Pink-tailed Worm Lizard (<i>Aprasia parapulchella</i>)	Spring-Summer

Methodology and results

Targeted surveys were undertaken by two ecologists for the species listed above in Table 1. Targeted surveys were timed to coincide with the optimum survey period for each species where possible. Surveys were undertaken by walking the proposed alignment and undertaking targeted searches for each species in areas of suitable habitat.

If a species was identified as occurring on site, a GPS point and an estimate of the number of individuals present was taken.

Threatened Flora Surveys

Threatened flora surveys were undertaken between 26th October and the 6th of November 2012 as identified in Table 2. The targeted surveys recorded the presence of the Hoary Sunray within the proposed alignment. No other threatened flora species were recorded.

Table 2 Threatened flora surveys undertaken

Target Species	Survey Date	Survey Location
Small Purple-Pea (<i>Swainsona recta</i>)	1 st of November 2012	Long Gully Road
Button Wrinklewort (<i>Rutidosia leptorrhynchoides</i>)	7 th December 2012	Red Hill
Austral Toadflax (<i>Thesium australe</i>)	6 th of November 2012	Kambah Pools and Murrumbidgee River Corridor
Hoary Sunray (<i>Leucochrysum albicans</i> var. <i>tricolor</i>)	1 st , 5 th & 6 th of November 2012	Federal Highway, areas of Box-Gum Woodland
Canberra Spider Orchid (<i>Arachnorchis actensis</i>)	26 th of October, 1 st of November 2012	Mt Majura/Mt Ainslie

Small Purple Pea – Endangered (EPBC)

The targeted surveys did not detect the Small Purple Pea either within the proposed alignment or within 10m of the trail alignment. A known reference population for the species was checked prior to completing the surveys to ensure that the species was in flower to ensure the highest chance of the species being detected.

Button Wrinkle-Wort – Endangered (EPBC)

Targeted surveys for this species were conducted at Red Hill Nature Reserve. The CCT utilises existing tracks in this area which require upgrade. The targeted surveys identified the species at a single location along the proposed alignment (Figure 7). Two individuals were observed on the edge of the track (Plate 3). This population has been previously recorded and is mapped in the ACTMAPi database.

Austral Toadflax – Vulnerable (EPBC)

While the species has been previously recorded (ACTMAPi Database) in the local area, the targeted surveys did not detect the Austral Toadflax either within the proposed alignment or in the adjacent area.

Areas containing a high proportion of Kangaroo Grass (*Themeda australis*) were targeted as the species is known to preferentially use Kangaroo Grass as a host plant.

Hoary Sunray – Endangered (EPBC)

Targeted surveys for Hoary Sunray were undertaken along the CCT alignment in the area of the Hughie Edwards Rest Area and in areas considered likely to provide potential habitat for the species such as Box-Gum Woodland. The species was recorded in the Ecological Assessment report (Eco Logical Australia, 2012) adjacent to the Hughie Edwards rest area.

The targeted surveys confirmed the presence of the species at the Hughie Edwards rest area where approximately 70 individuals occur along the current alignment of the CCT (Figure 1). In addition, two other populations were observed within or adjacent to the Hughie Edwards rest area (>200 individuals in total). Neither of these populations is located close to the proposed alignment, and as such will not be impacted by the development of the CCT.

In addition, two isolated individuals were recorded along the proposed alignment at Long Gully Road (Figure 2) and Black Mountain (Figure 3). It is understood that the CCT will be micro-aligned to avoid any impact to this species. The location of each individual will be marked prior to construction to ensure that impacts to the species are avoided.

Canberra Spider Orchid – Critically Endangered (EPBC)

Targeted surveys for Canberra Spider Orchid were undertaken along the CCT alignment in the areas of Mount Majura and Mount Ainsle considered likely to provide potential habitat for the species. A known reference population for the species was checked prior to completing the surveys to determine if the species was in flower to ensure the highest chance of the species being detected. At the time of survey, the flower heads were still conspicuous and easily identifiable, even though the species had recently finished flowering..

The targeted surveys did not record the species within or adjacent to the proposed alignment.

Threatened Fauna Surveys

Threatened flora surveys were undertaken between 26th October and the 6th of November 2012 as identified in Table 2. The targeted surveys recorded the presence of both the Pink-tailed Worm Lizard and the Golden Sun Moth within the proposed alignment. No other threatened flora species were recorded.

Table 3 Threatened fauna surveys undertaken

Target Species	Survey Date	Survey Location
Pink-tailed Worm Lizard (<i>Aprasia parapulchella</i>)	1 st & 6 th November 2012	Isaac’s Ridge, Murrumbidgee River Corridor
Golden Sun Moth (<i>Synemon Plana</i>)	15 th November 2012	Gungahlin alignment (unleased territory land, Pattinsons property, Carmody’s Property and Bolton’s Property)

Pink-tailed Worm Lizard – Vulnerable (EPBC)

Targeted surveys consisting of rock rolling for the Pink Tailed Worm Lizard (PTWL) were undertaken along the CCT alignment in areas previously identified as likely to provide potential habitat (Eco Logical, 2012), see Figure 4, Figure 5. Surveys were undertaken in accordance with the Commonwealth Survey Guidelines for Threatened Reptiles

The targeted surveys identified the species within the proposed alignment at Isaacs Ridge where a single individual was recorded (Plate 4). The individual was recorded in a large patch of contiguous habitat comprising a mix of shallow as well as deeply embedded rocks on a grassy hill slope. The proposed alignment traverses the patch and will result in an impact to 0.1ha of known habitat for the species (Figure 5).

Golden Sun Moth – Critically Endangered (EPBC)

Targeted surveys were not undertaken for the Golden Sun Moth; however, the species was recorded in Gungahlin in the rural leases along the northern border (Figure 6). The species was recorded in an area of derived Red Stringybark – Scribbly Gum Tablelands Forest with a native grass understory comprised predominantly of *Austrodanthonia carphoides*. The species was recorded over an area approximately 1.5km in length. It is estimated that approximately 13ha of habitat is present on the ACT side of the border. Habitat for the species continues across the border but was not able to be mapped or quantified. The CCT will result in an impact to 0.18 ha of known habitat for this species.

Summary and Recommendations

Following the completion of the targeted surveys, two threatened flora species (Hoary Sunray and Button Wrinkle-Wort) and two threatened fauna species (Pink-Tailed Worm Lizard & Golden Sun Moth) were identified as occurring within the proposed alignment.

The EPBC referral for the project (2012/6645) was submitted to the Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) in November 2012. The referral includes commitments to avoid impacts to the Hoary Sunray and Button Wrinkle-Wort through micro-alignment of the trail. It is recommended that these commitments be re-iterated and suitable micro-alignment options be chosen in co-ordination with a suitably qualified ecologist and the track construction contractor.

Appendix B – list of Figures



Plate 1 – Hoary Sunray (*Leucochrysum albicans* var. *tricolor*) recorded at Black Mountain – Endangered (EPBC)



Plate 2 – Golden Sun Moth (*Synemon plana*) – recorded in Gungahlin, ACT - Critically Endangered (EPBC)



Plate 3 – Button Wrinkle-Wort (*Rutidosia leptorrhynchoides*) – recorded at Red Hill Nature Reserve, ACT – Endangered (EPBC)



Plate 4 – Pink-tailed Worm Lizard (*Aprasia parapulchella*) – recorded at Isaacs Ridge, ACT – Vulnerable (EPBC)

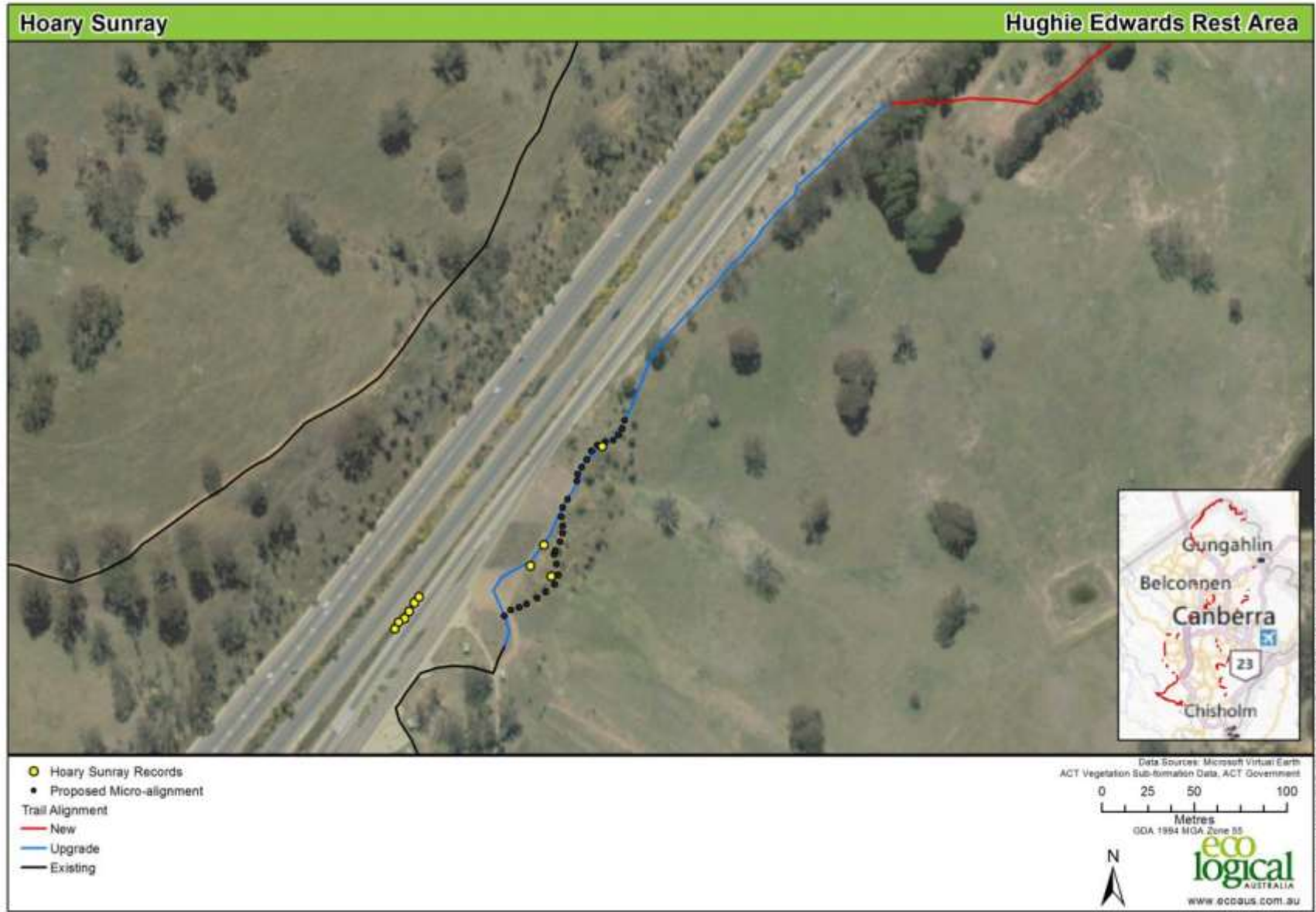


Figure 1 Hoary Sunray - Hughie Edwards rest area, Federal Highway

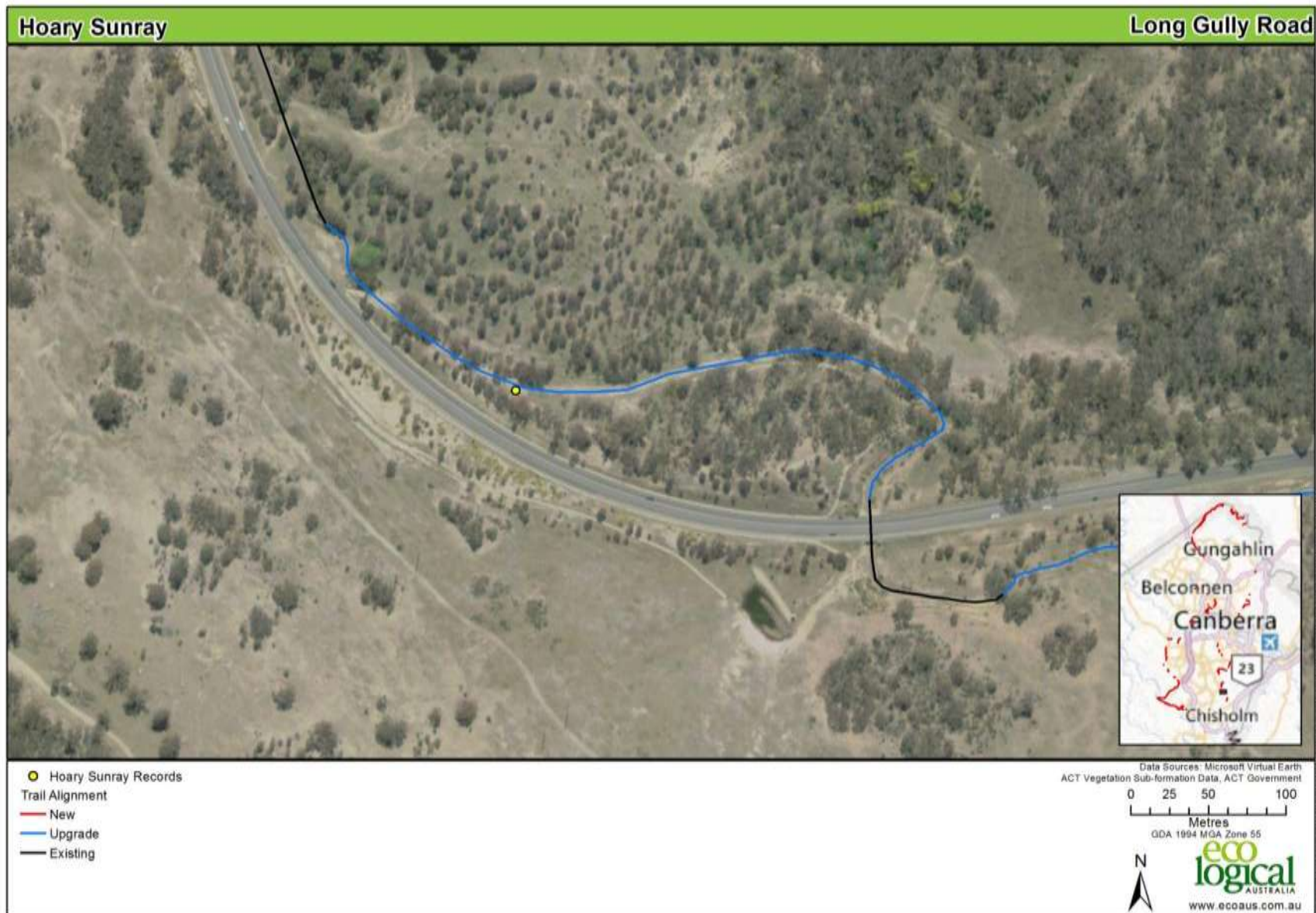


Figure 2 Hoary Sunray - Long Gully Road

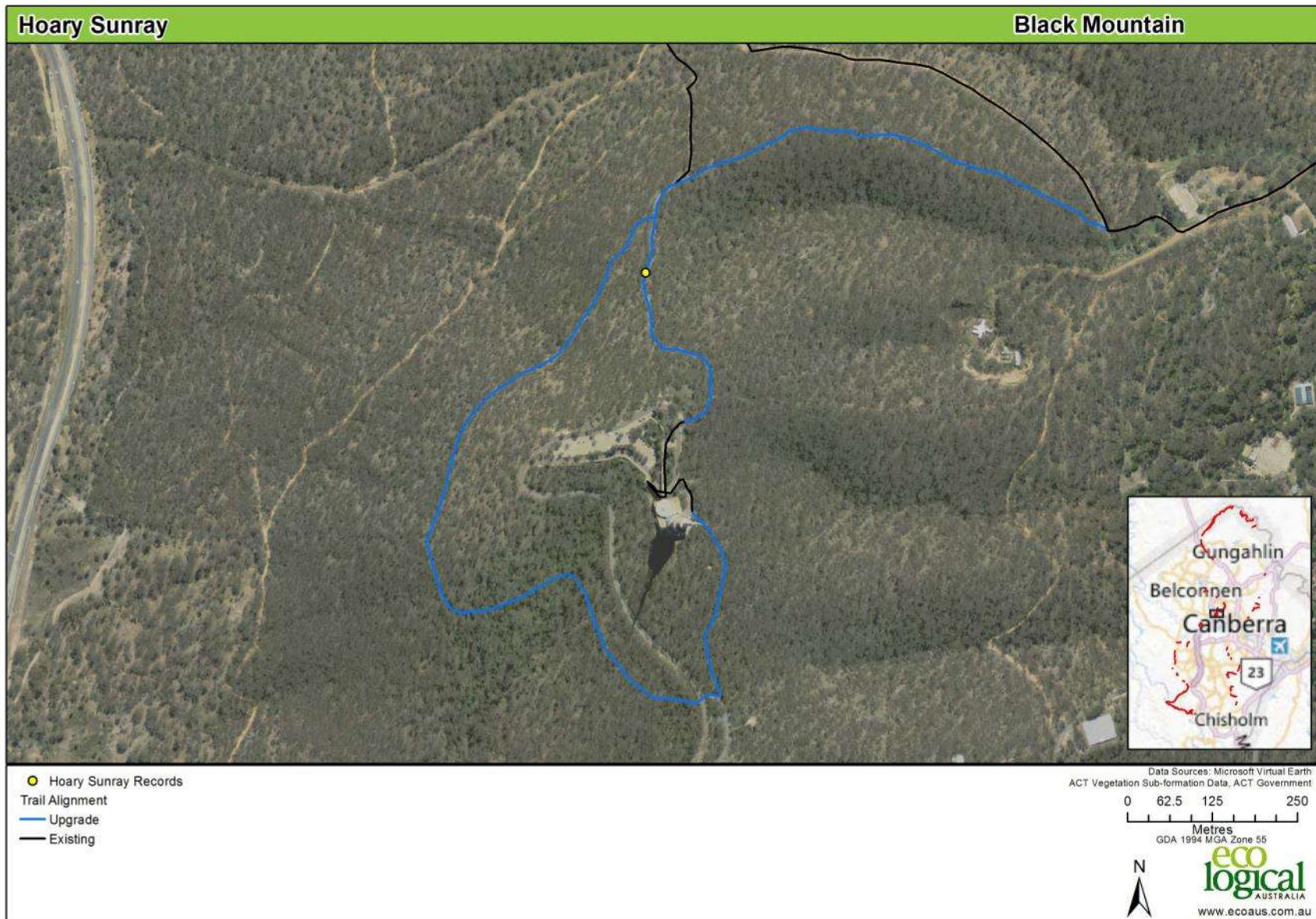


Figure 3 Hoary Sunray - Black Mountain Nature Reserve

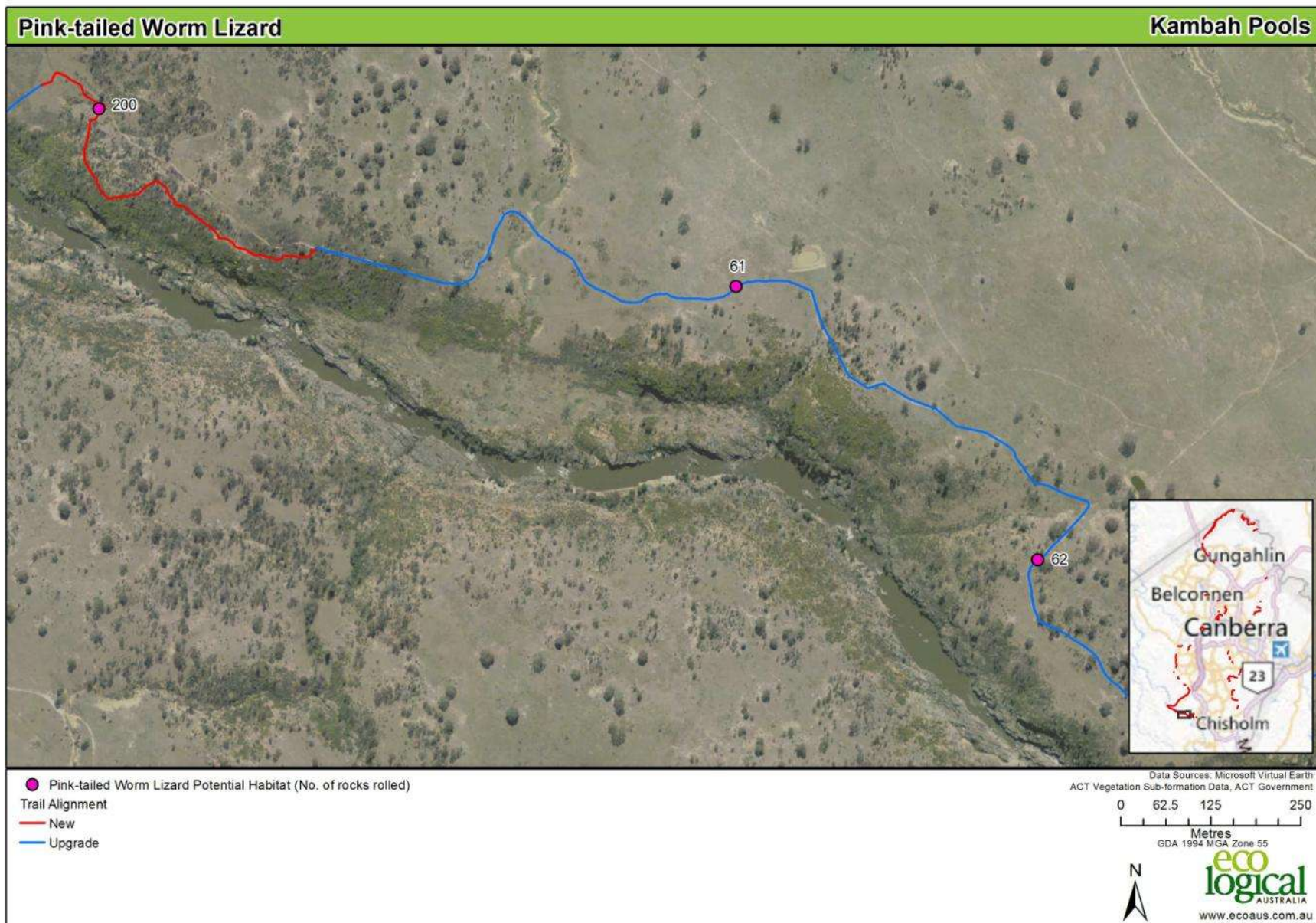


Figure 4 Potential Pink Tailed Worm Lizard Habitat - Murrumbidgee River Corridor

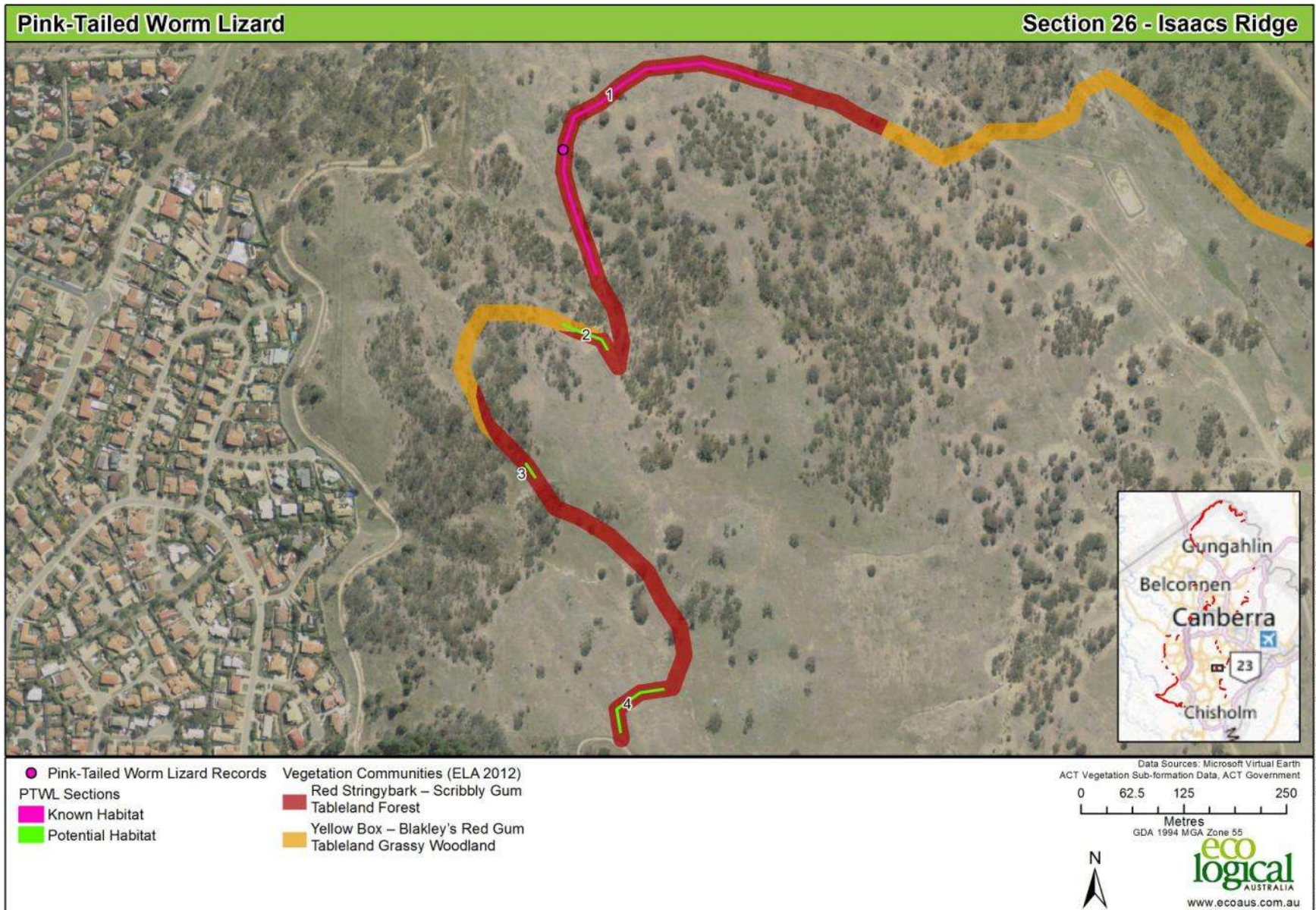


Figure 5 Pink Tailed Worm Lizard - Issacs Ridge Nature Reserve

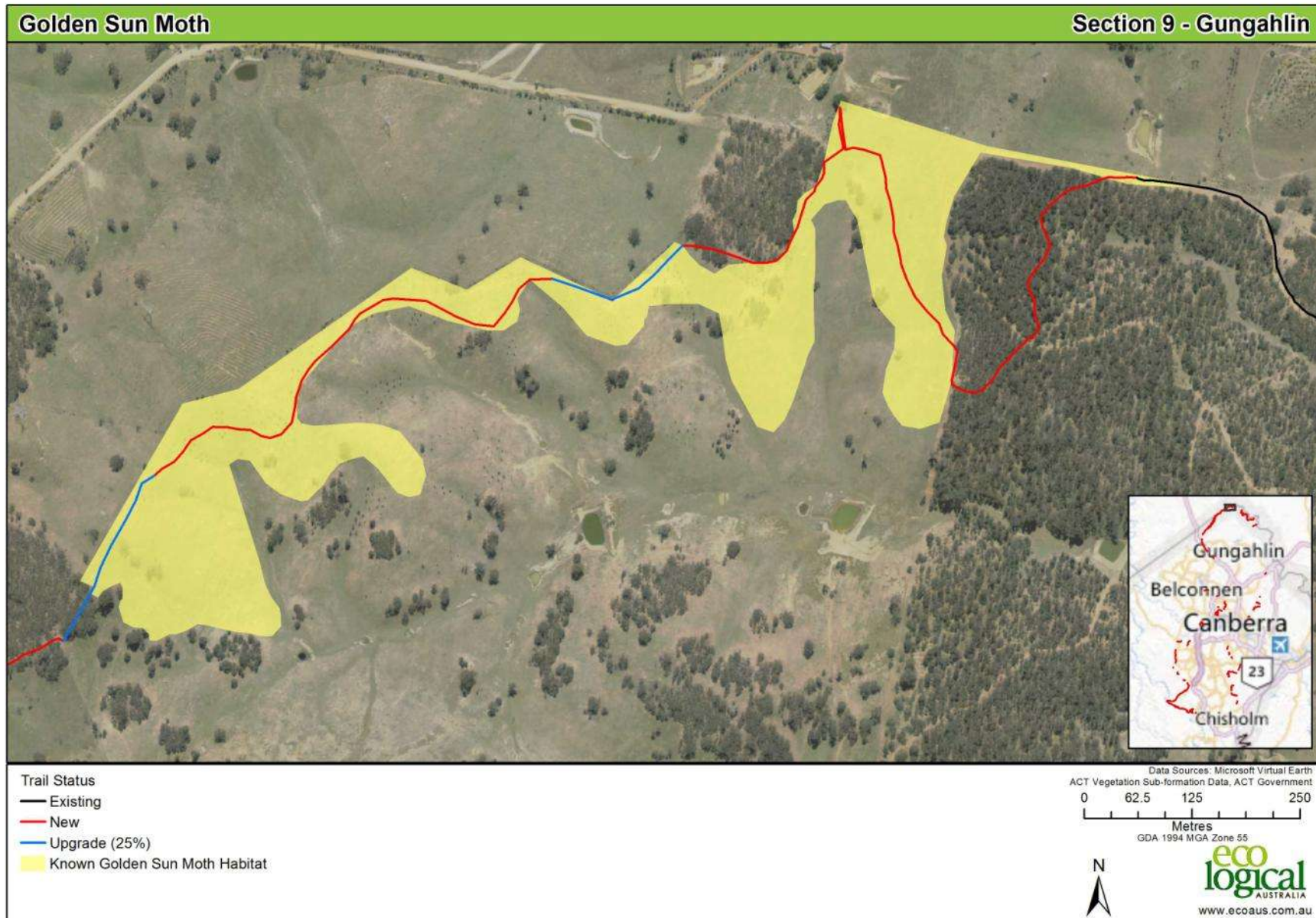


Figure 6 Golden Sun Moth Habitat - Gungahlin

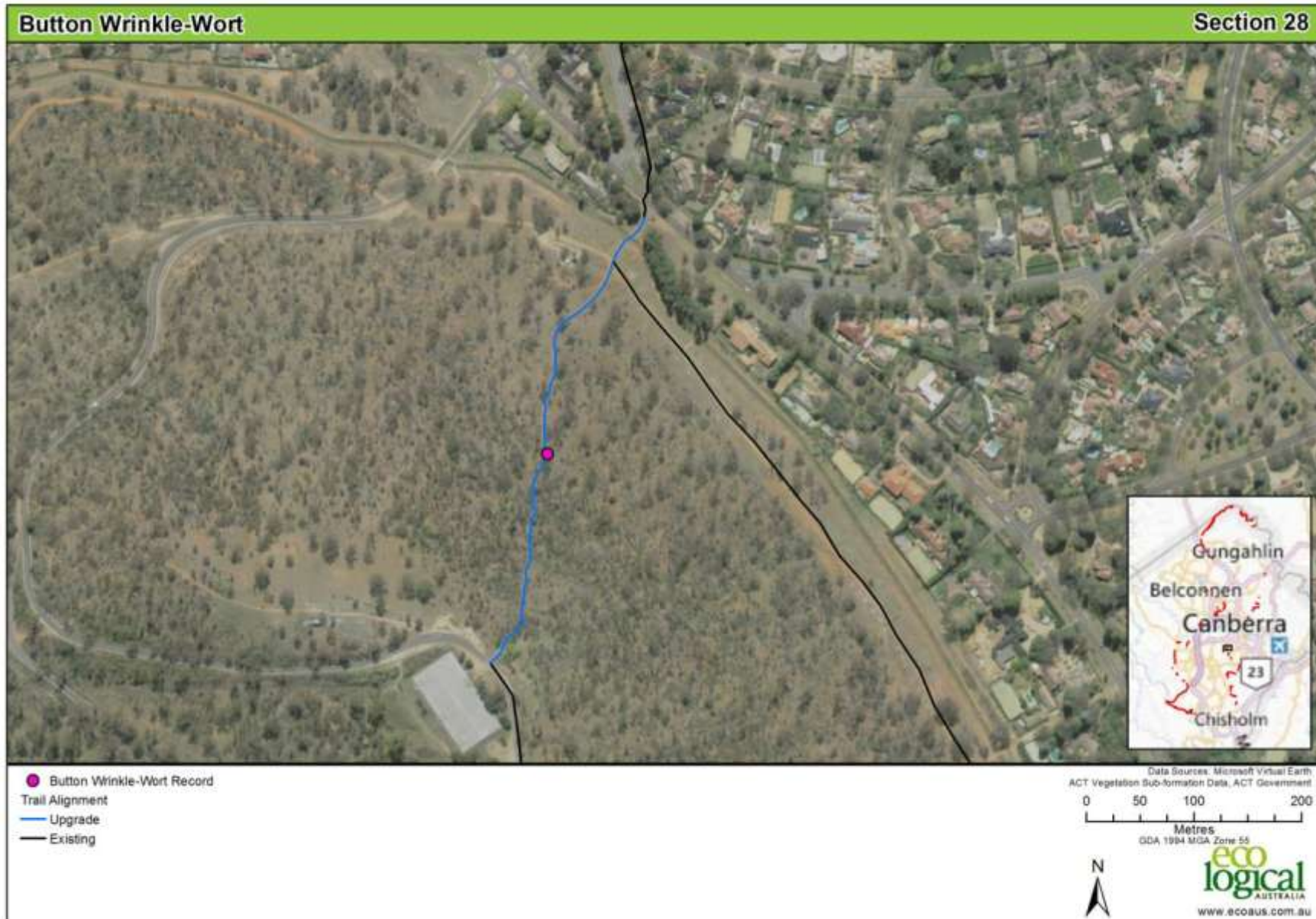


Figure 7 Button Wrinkle-Wort record, Red Hill Nature Reserve