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### **Memorandum: New Morning Project-Targeted Flora Survey**

Botanica Consulting Pty Ltd (Botanica) was commissioned by Western Areas Limited (WSA) to undertake a targeted search for conservation significant flora, in particular targeting the Threatened Flora taxon; *Paragoodia crenulata* within the New Morning Project Disturbance Envelope (referred to as the 'target survey area') which is located at the WSA Forrestania Nickel Project, approximately 75 km east of Hyden, Western Australia. The target survey area covered an approximate area of 64 ha (Figure 1).

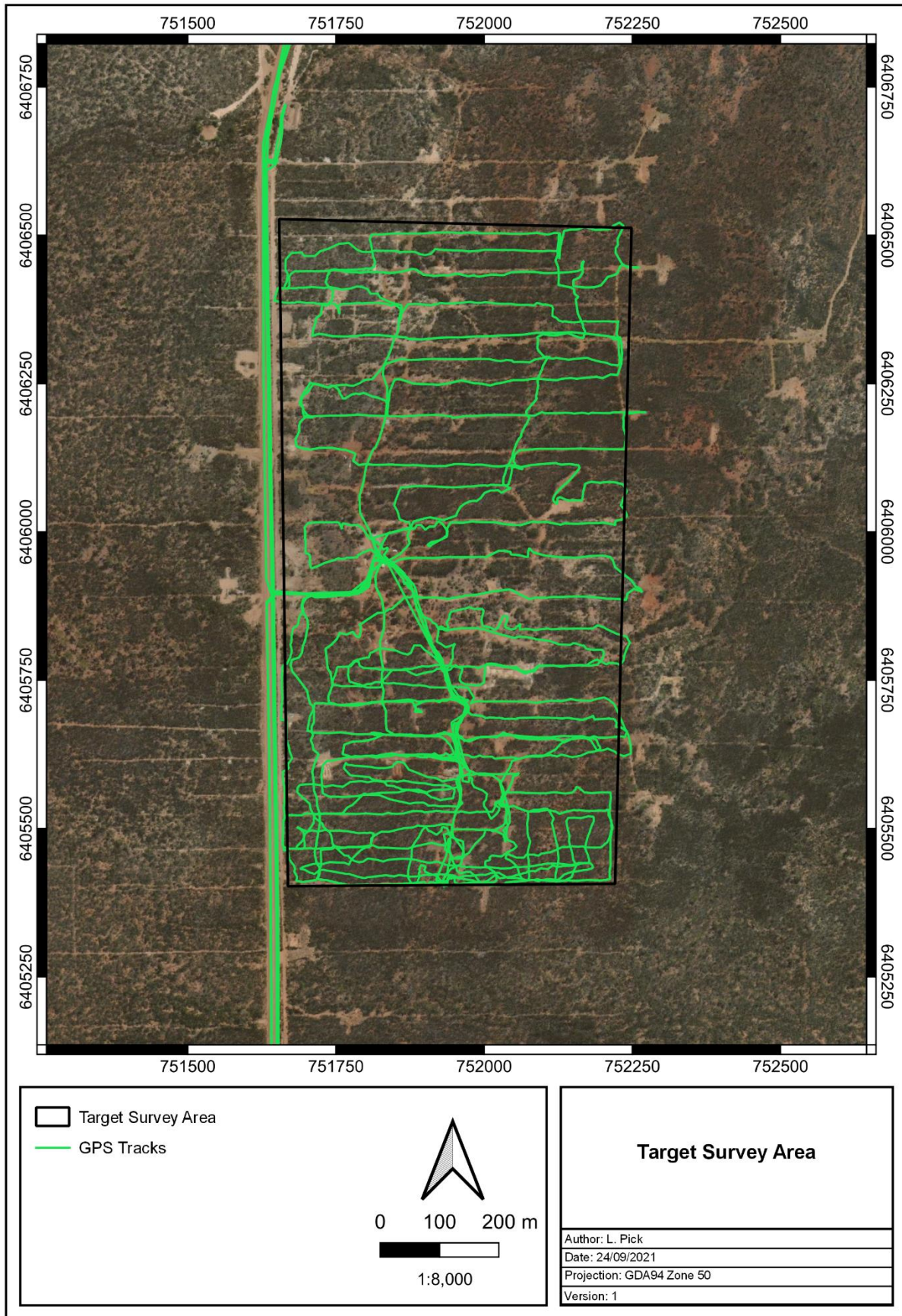
The target survey was conducted following a detailed flora and vegetation survey (encompassing an approximate area of 1,298 ha) completed by Botanica over two seasons; spring 2018 (from the 26<sup>th</sup> to the 29<sup>th</sup> August 2018) and autumn 2019 (from 23<sup>rd</sup> to 24<sup>th</sup> May 2019) during which two Threatened Flora taxon pursuant to the Western Australian *Biodiversity Conservation Act 2016* (BC Act) and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) were identified:

1. *Eucalyptus steedmanii*; and
2. *Paragoodia crenulata* (also considered endemic to the area)

A total of four Priority Flora taxa as listed by DBCA were also identified:

1. *Eremophila racemosa* (P4);
2. *Eutaxia acanthoclada* (P3);
3. *Microcorys* sp. Forrestania (V. English 2004) (P4); and
4. *Stylidium sejunctum* (P3).

The targeted survey was conducted on the 26<sup>th</sup> August 2021 by two Botanica staff members; Jim Williams (Diploma of Horticulture) and Jennifer Jackson (Senior Botanist, BSc Environmental Management (Honours)). Survey timing was planned to occur during the flowering period of the threatened flora taxon, *Paragoodia crenulata* (July-August). The survey area was traversed on foot using a handheld GPS to record the locations of tracks traversed and locations of any conservation significant flora (recorded in GDA 94 format) as shown in Figure 1.



**Figure 1: New Morning Project Targeted Survey**



## Results



One Threatened Flora taxon listed under the BC Act and EPBC Act was identified within the target survey area; *Paragoodia crenulata* (Table 1). Three Priority Flora taxa were identified within the target survey area<sup>1</sup> (Table 1 and Figure 2). Locations of each taxon recorded by Botanica and DBCA records in the local region (within 50km of the survey area) are shown spatially in Figures 3-6.

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<sup>1</sup> Recorded during previous flora surveys. No new records identified during the current targeted survey

**Table 1: Significant flora recorded within the New Morning Project Target Survey Area**

Taxon	Conservation Code	Description	Image
<b>Threatened Flora</b>			
<i>Paragodia crenulata</i>	Critically Endangered (EPBC Act) Vulnerable (BC Act)	<p>Previously known from two populations endemic to the Forrestania region. Botanica have recorded three additional populations of this taxon with one population identified at the southern extremity of the target survey area. A total of 1000 plants recorded within the target survey area and approximately 4,596 plants recorded in the local region (within 50km of the survey area).</p>	
<b>Priority Flora</b>			
<i>Eremophila racemosa</i>	Priority 4	<p>666 records of this taxon recorded within the target survey area during previous surveys (within disturbed/ cleared vegetation). Approximately 17,740 plants recorded in the local region (within 50km of the survey area).</p>	

Taxon	Conservation Code	Description	Image
<p><i>Microcorys</i> sp. Forrestania (V. English 2004)</p>	<p>Priority 4</p>	<p>One individual record of this taxon previously recorded within the target survey area during previous surveys (within disturbed/ cleared vegetation). Approximately 15,505 plants recorded in the local region (within 50km of the survey area).</p>	
<p><i>Stylidium sejunctum</i></p>	<p>Priority 3</p>	<p>563 records of this taxon recorded within the target survey area during previous surveys. Approximately 2,264 plants recorded in the local region (within 50km of the survey area).</p>	

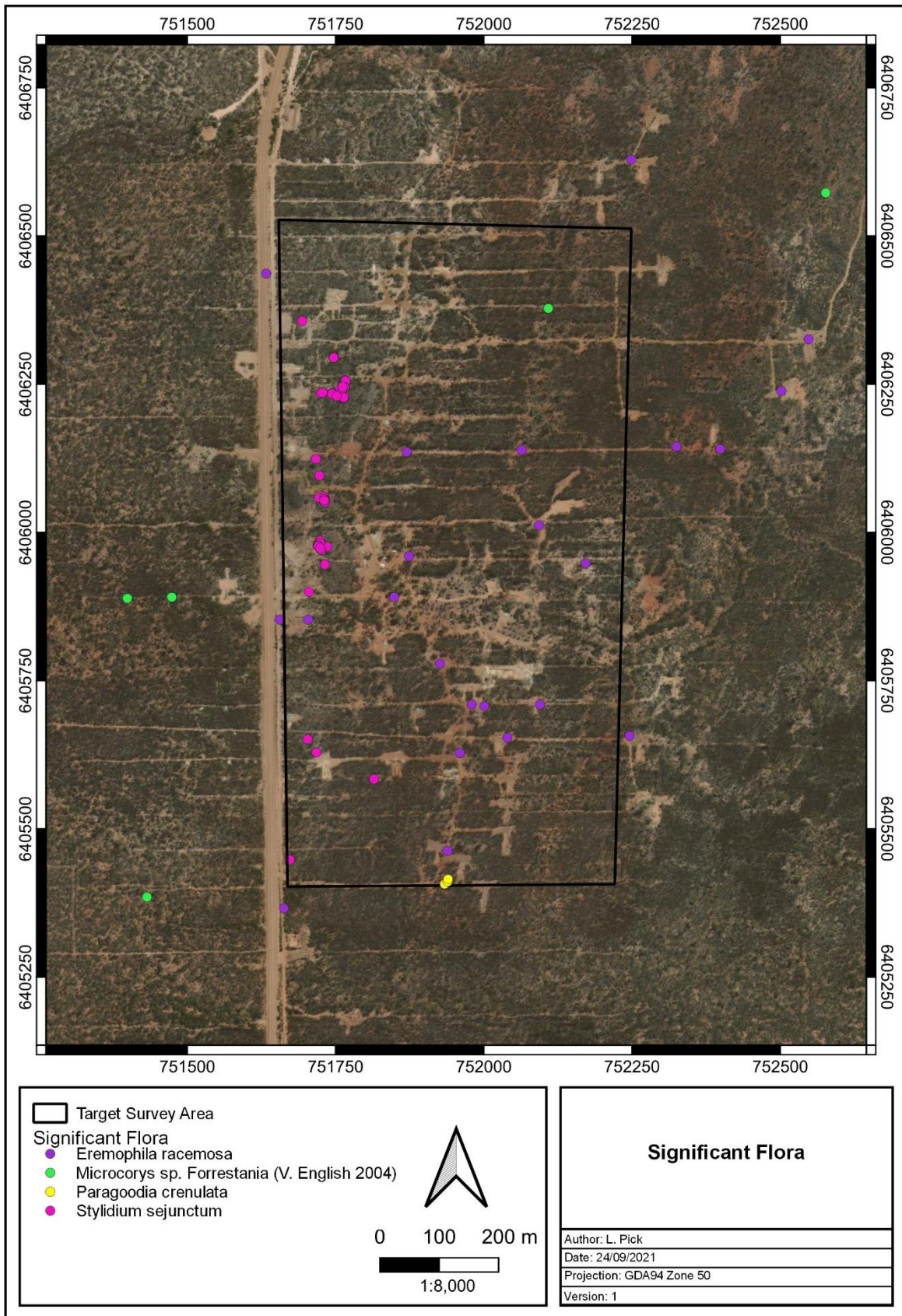
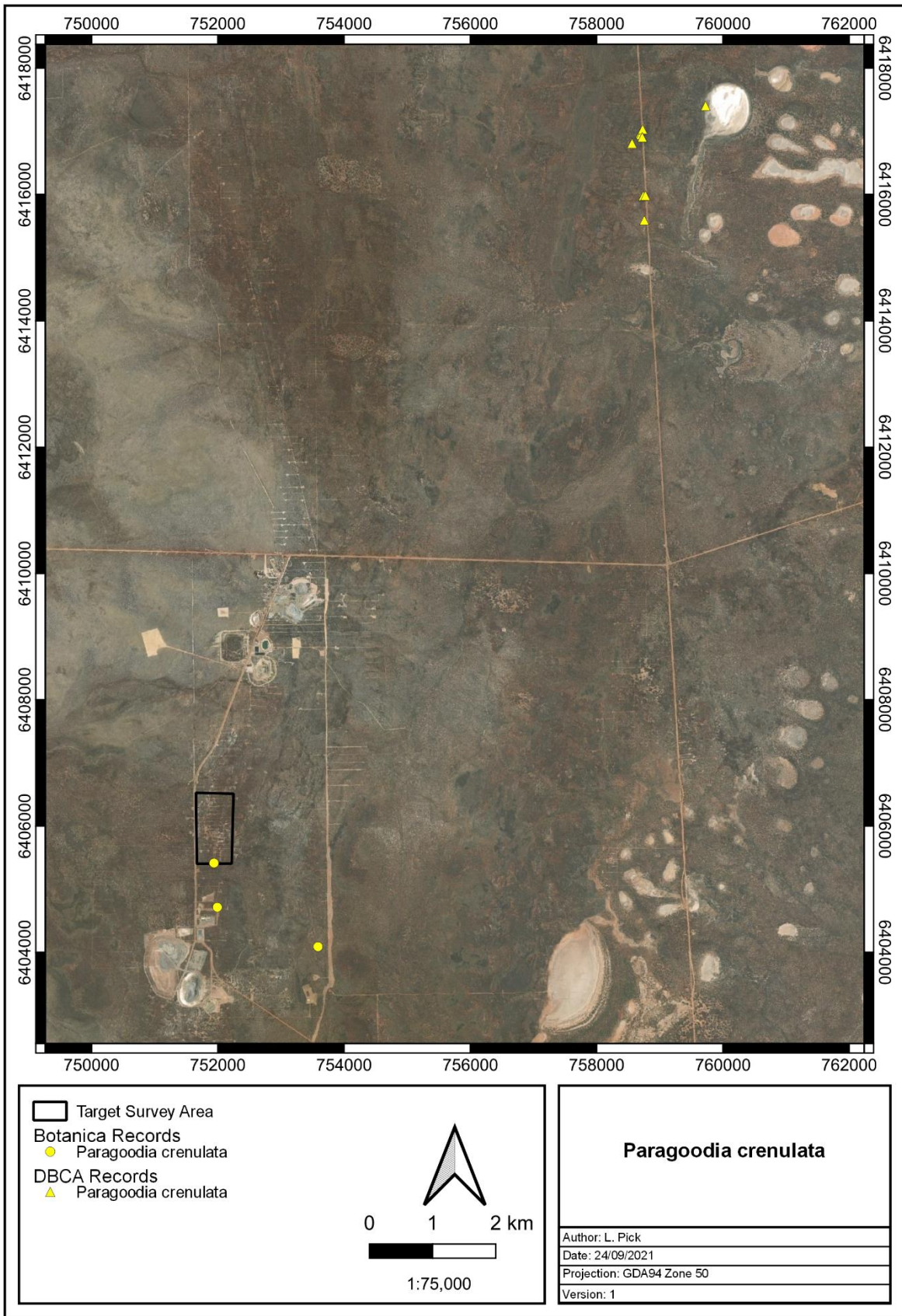


Figure 2: Significant flora recorded within the New Morning Project Target Survey Area



**Figure 3: *Paragoodia crenulata* (T) local records**

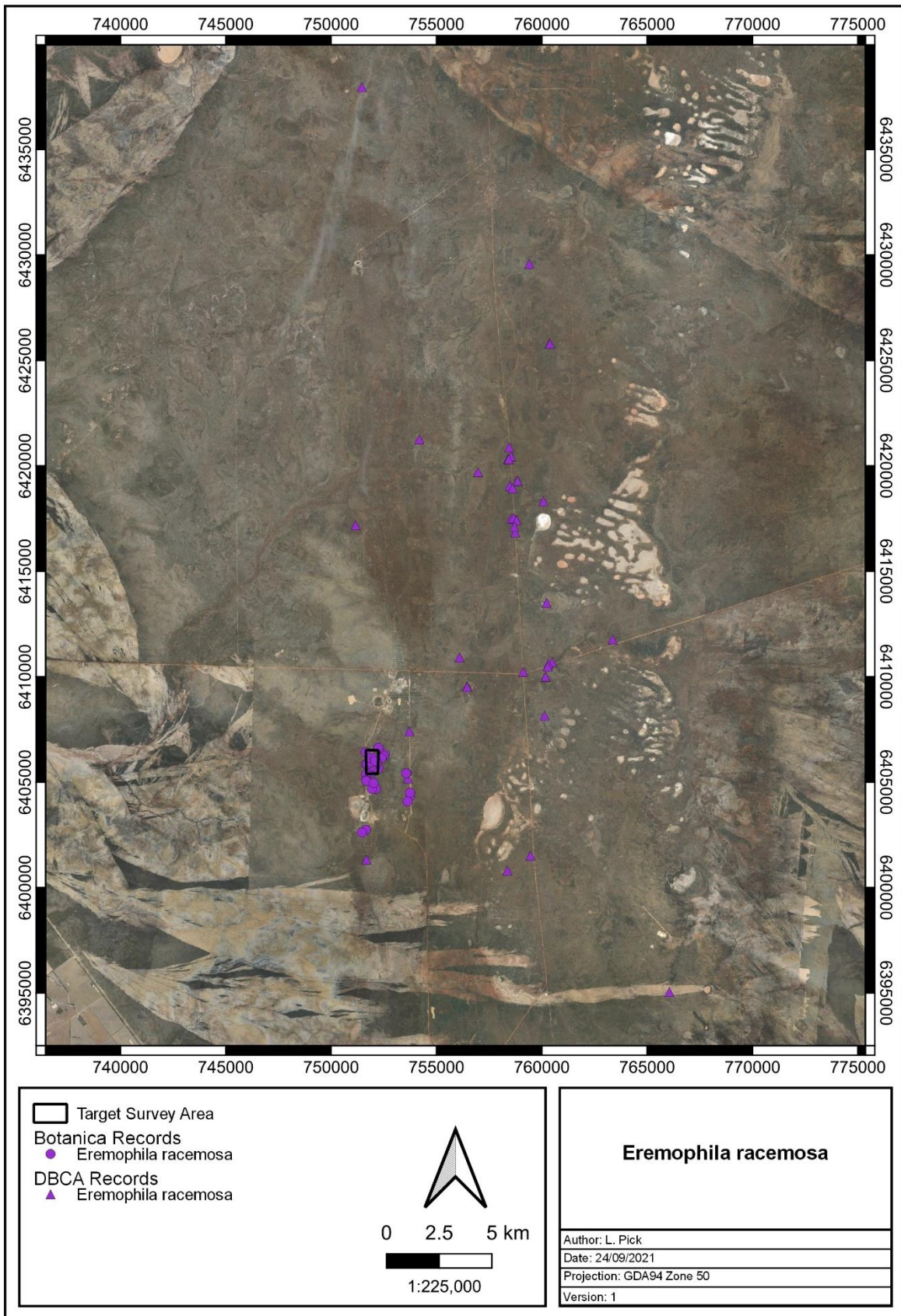


Figure 4: *Eremophila racemosa* (P4) local records



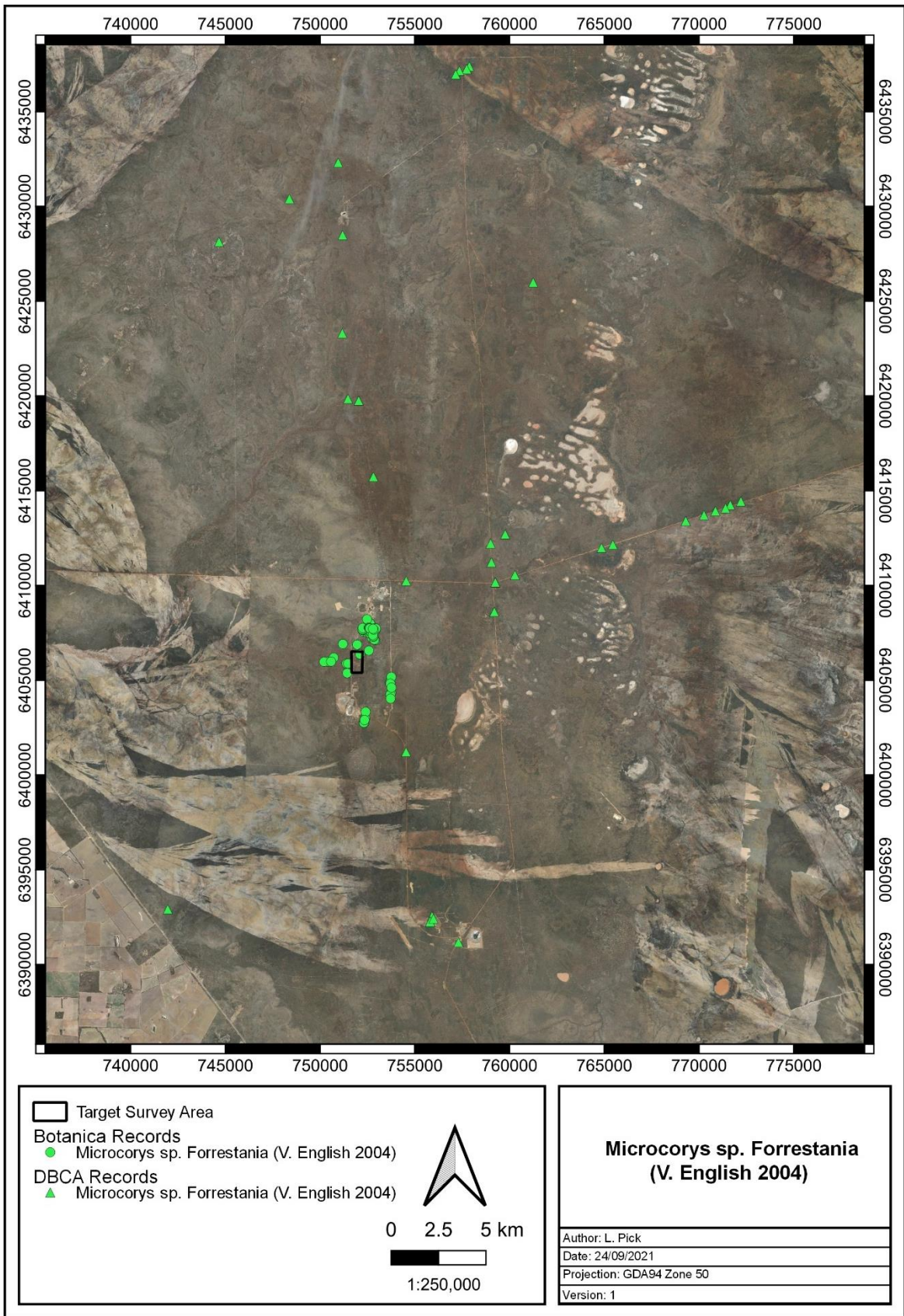


Figure 5: *Microcorys* sp. *Forrestania* (V. English 2004) (P4) local records

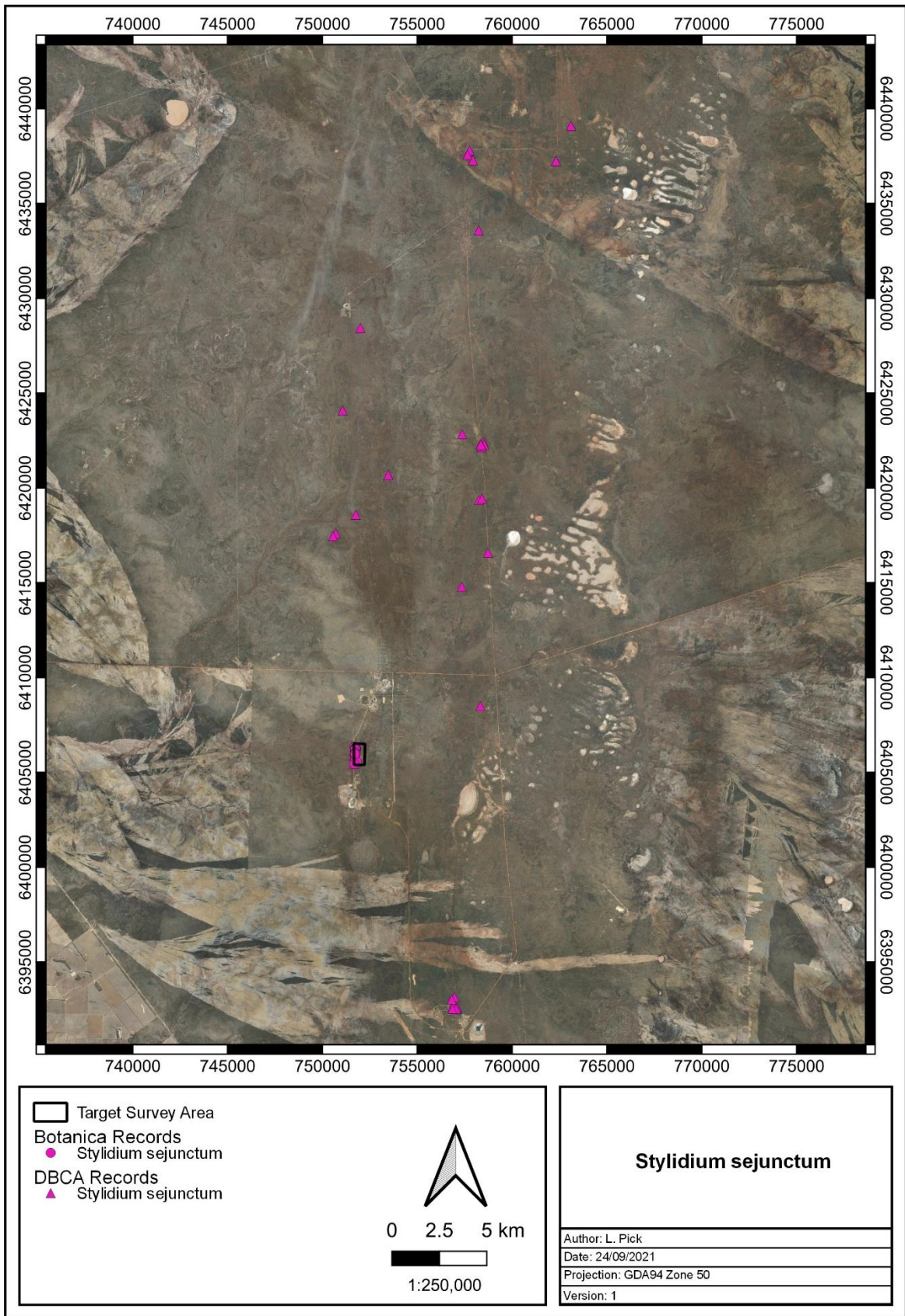


Figure 6: *Stylidium sejunctum* (P3) local records

## Recommendations

- Clearing within a 50m radius of any Threatened Flora is avoided. Where disturbance is unavoidable, no clearing is to be undertaken without approval under the *Environmental Protection Act 1986* (EP Act);
- Clearing of Threatened Flora is avoided. Where disturbance is unavoidable, no clearing is to be undertaken without approval under the EP Act and approval by DBCA under the BC Act.
- Clearing within a 10m radius of any Priority Flora should be avoided. Where disturbance is unavoidable, consultation with the DBCA Species and Communities Program is required.

## References

DAWE (2021) Species Profiles and Threats Database, Department of Agriculture, Water and Environment.

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EPA (2016a), *Technical Guide - Flora and Vegetation Surveys for Environmental Impact Assessment – December 2016*. Environmental Protection Authority.

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