

6 October 2024

Claire Norman
Senior Scientist
CoTerra Environment
Level 1, 98 Colin St
West Perth, WA 6005

Dear Claire,

Plantecology Consulting was commissioned by CoTerra Environment to undertake a targeted search for two species of Threatened Flora at the Wanneroo Shooting Complex, Pinjar in the City of Wanneroo. This report presents the results of that survey.

1 Introduction

The Sporting Shooters Association of Australia (Western Australia) Inc. are planning to expand the existing Wanneroo Shooting Complex by adding an additional shooting range, which would require the clearing of approximately 6 ha of native vegetation (Figure 1). The expansion area was surveyed for botanical values by Anders Consulting (2023) in October 2022 as part of a broader survey and recorded no Threatened or Priority Flora within the surveyed area. Some of the vegetation types recorded within the site have been identified as potential habitat for two species of Threatened Flora: *Drakaea elastica* and *Caladenia huegelii*. An intensive and targeted survey of the proposed clearing area was required to determine if these species were present

Drakaea elastica (Glossy-leafed Hammer Orchid) occurs in damp *Kunzea glabrescens* or banksia woodland. When flowering, *Drakaea elastica* grows to 12-30 cm in height, but the species is most conspicuous in July and August when its bright green and glossy basal leaf can be seen. The leaves wither before flowering occurs between September and October and so the winter months are the best time to search for it.

Caladenia huegelii (Grand Spider Orchid) occurs in low-lying grey or brown sands and clayey loams of banksia woodlands. It flowers between September and October and grows to 25 – 60 cm tall and is easily observable when in flower.

2 Methods

As the optimal time of year to search for the targeted species does not overlap, two searches of the proposed clearing area was needed to determine their presence. The first field survey was conducted by two botanists from Plantecology Consulting on the 6th August 2024. The site was searched on foot in parallel traverses approximately 5m apart (Figure 2).

A second visit was planned for early October, when it would be expected that individuals of *Caladenia huegelii* would be flowering. However, in the interim between the two site visits, a prescribed burn of the area had been conducted (Plate 1). As a result, any above ground parts of *Caladenia huegelii* individuals would have been removed and a second survey was not undertaken.

3 Results and Summary

No individuals of *Drakaea elastica* were observed during the site visit in August. Population sizes of *Drakaea elastica* are correlated to autumn rainfall (DEC 2008) and rainfall in the April to May period in the Perth Metropolitan Region was mostly below average. If a population was present within the proposed clearing area, this may explain if fewer individuals were observable in a given year, but the rainfall should have been sufficient for some plants to respond, and it is unlikely that the species occurs there.

Due to the prescribed burn of the area, no comments on the likelihood of the presence of a population of *Caladenia huegelii* can be made.

Should you require any further information or have any other queries, please feel free to contact me.

Sincerely yours,



Dr. Shane Chalwell

Plantecology Consulting



50 New Cross Rd
Kingsley, WA 6026
T 0429 061 094
E shane@plantecology.com.au
ABN 18 849 210 133

4 References

- Anders Consulting (2023) Flora and Vegetation Survey of the Wanneroo Shooting Complex, Unpublished report for Sporting Shooters Association of Australia (Western Australia) Inc.
- DEC (2008) Interim Recovery Plan No. 256: Glossy-Leafed Hammer Orchid (*Drakaea elastica*) Interim Recovery Plan 2008-2013, Department of Environment and Conservation, Kensington.



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Plates

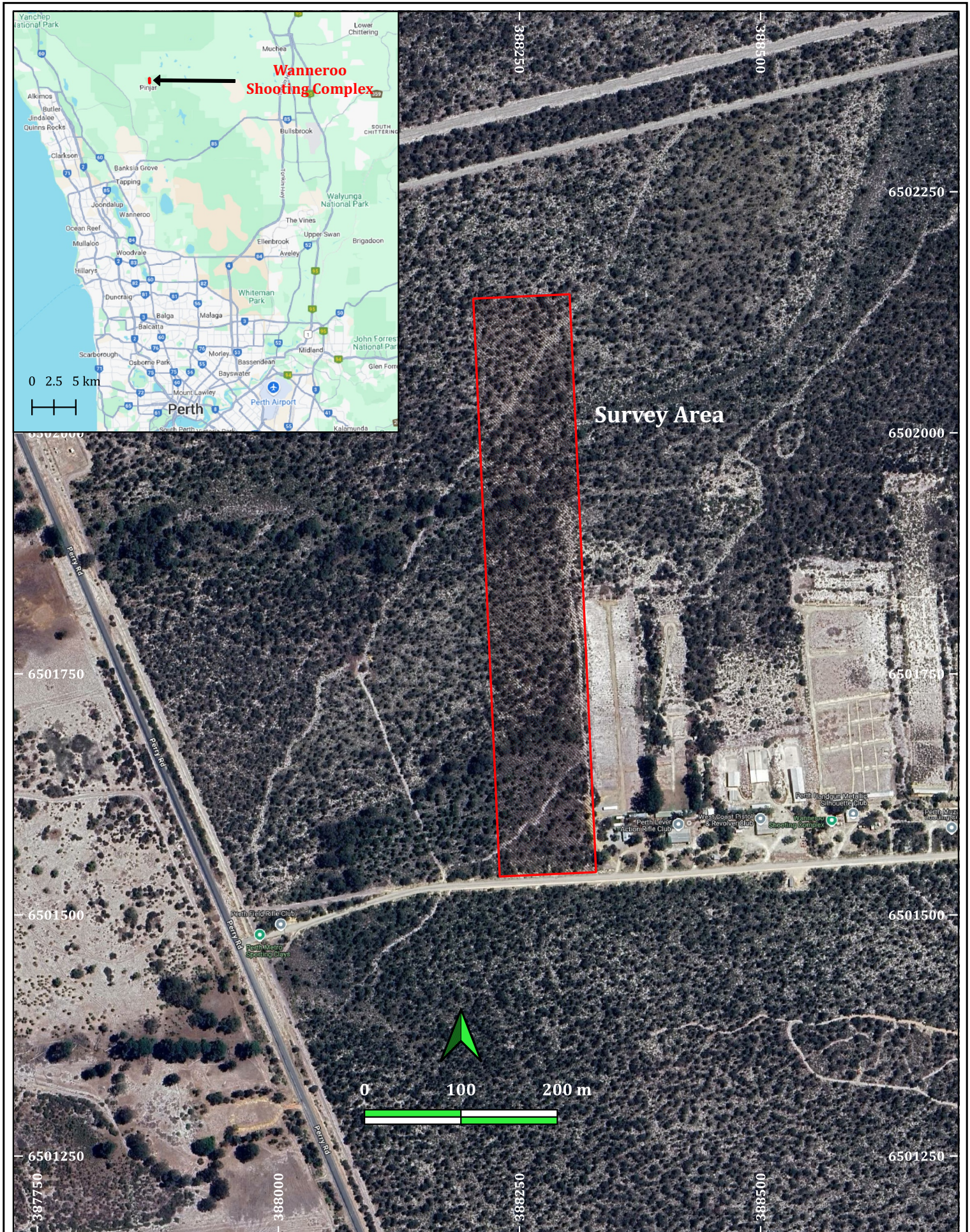


Plate 1: View of vegetation after the prescribed burn (Courtesy J. Romano).



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Figures

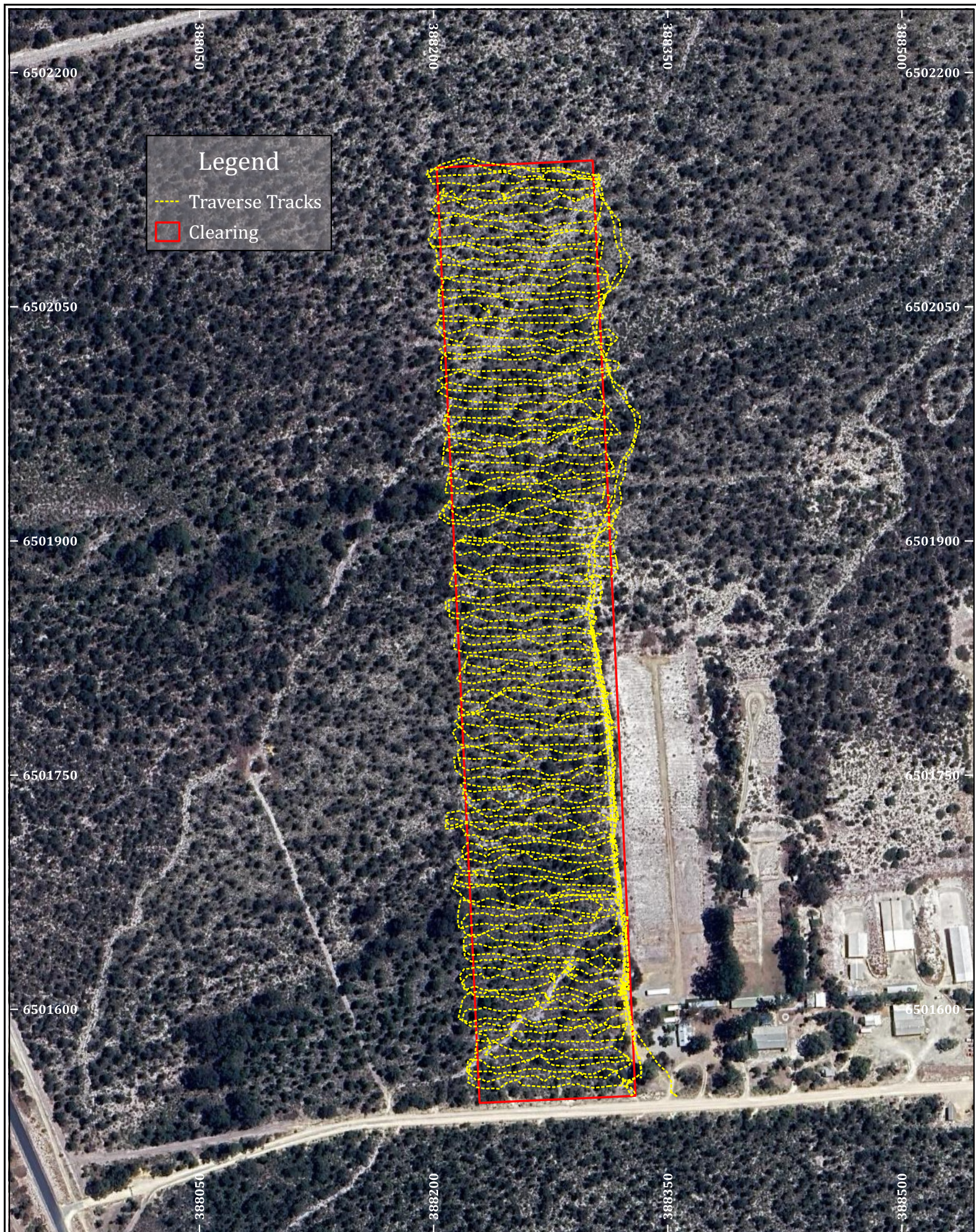


50 New Cross Rd Kingsley WA 6026

Scale: 1:5 000
 Basemap Source: Google Satellite Hybrid
 Datum: GDA2020
 Projection: EPSG 7850

Client: Sporting Shooters Association of Australia (WA)
 Project: Wanneroo Targeted Flora Survey
 Location: Wanneroo Shooting Complex
 Author: S.T.S. Chalwell
 Drawn: S.T.S. Chalwell

**Figure 1:
 Locality Plan**



Legend

- - - Traverse Tracks
- Clearing



50 New Cross Rd Kingsley WA 6026

Scale: 1:3 000
 Basemap Source: Google Satellite Hybrid
 Datum: GDA2020
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**Figure 2:
 Survey Effort**