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MEMORANDUM: **West Erregulla Threatened and Priority Flora Survey**

FIELD SURVEY 14th – 15st December 2021

Mattiske Consulting Pty Ltd (Mattiske Consulting) was commissioned in December 2021 to undertake a threatened and priority flora survey of the proposed West Erregulla pipeline, approximately 35 km west southwest of Dongara, Western Australia. The proposed pipeline footprint (survey area) had previously been the subject of a detailed and threatened and priority flora survey in September and October 2020, respectively (Eco Logical 2021). Mattiske Consulting was commissioned primarily to assess the presence of *Paracalaena dixonii* (T), a summer flowering taxon recorded by the Department of Biodiversity, Conservation and Attraction (DBCA) within the survey area.

During the field survey, two botanists had access to all relevant data in the Esri iOS application, Collector for ArcGIS on Apple iPads (provided and maintained by CAD Resources). Data layers accessible in the field included the survey area boundary, proposed direct impact footprints, and Eco Logical (2021), DBCA and Western Australian Herbarium (WAH) conservation significant flora records. The survey area was walked at a low intensity (with no regular spacing of foot traverses), with particular focus on the proposed direct impact footprint. Focus was also placed on searching the areas surrounding historical DBCA and WAH flora records, in particular *Paracalaena dixonii* (T). During the field survey botanists also had access to detailed data on all potential conservation significant species, which may potentially be encountered during the field survey. Specimens of any species suspected of or considered to be of conservation significance were collected for identification, by taxonomists at the WAH. Both botanists held flora collection licenses, and one held a threatened flora collection license.

RESULTS AND DISCUSSION

The entirety of the survey area was walked at low intensity, and with irregular track spacings. Tracks and foot traverses are shown in Figure 1. Vegetation within the survey area was low and sparse as the result of a fire approximately three years prior to December 2021 survey (Plate 1). Post-fire coloniser species were not present in high numbers in the survey area, but long-lived perennial species were still sparse and small in size.

Plate 1: Post fire, low vegetation representative on the survey area.

Five conservation significant taxa were recorded within the survey area:
Banksia fraseri var. *crebra* (P3) – this is known from 16 records at the Western Australia State Herbarium and extends north-south within the northern sandplains mainly to the south-east of Dongara in dense heath.

- *Banksia scabrella* (P4) – this is known from 52 records at the Western Australia State Herbarium and extends north-south within the northern sandplains mainly to the south of Geraldton and west of Three Springs on the sandplains.

- *Hemiandra* sp. Eneabba (H. Demarz 3687) (P3) - this is known from 35 records at the Western Australia State Herbarium and extends north-south within the northern sandplains mainly to the south of Port Denison and west of Three Springs on the sandplains in heath communities with emergent *Eucalyptus todtiana* and *Xylomelum angustifolium*.

- *Micromyrtus rogeri* (P1) - this is known from 13 records at the Western Australia State Herbarium and extends north-south within the northern sandplains mainly to the south of Geraldton, with a minor occurrence further south on mainly sandplains in heath communities.

- *Paracaleana dixonii* (T) - this is known from 20 records at the Western Australia State Herbarium and extends north-south within the northern sandplains mainly to the south and south-east of Geraldton on the sandplains in heath communities with emergent *Eucalyptus todtiana* and Banksia species.

Records of these locations are illustrated in Figure 2 alongside Eco Logical (2021) records. The four priority species as recorded were confirmed by Mike Hislop at the State Herbarium. One *Paracaleana dixonii* (T) individual was recorded at a previous DBCA record of this taxon made in November 2011, within the survey area (Figure 2, Plate 2). This November 2011 DBCA record represented 24 individuals.

Paracaleana dixonii (T) flowers profusely after summer fire (DAWE 2008), suggesting that this one flowering individual likely represents a larger non-flowering population present in the area.

Plate 2: ***Paracalaena dixonii*** **(T)**

CONCLUSIONS

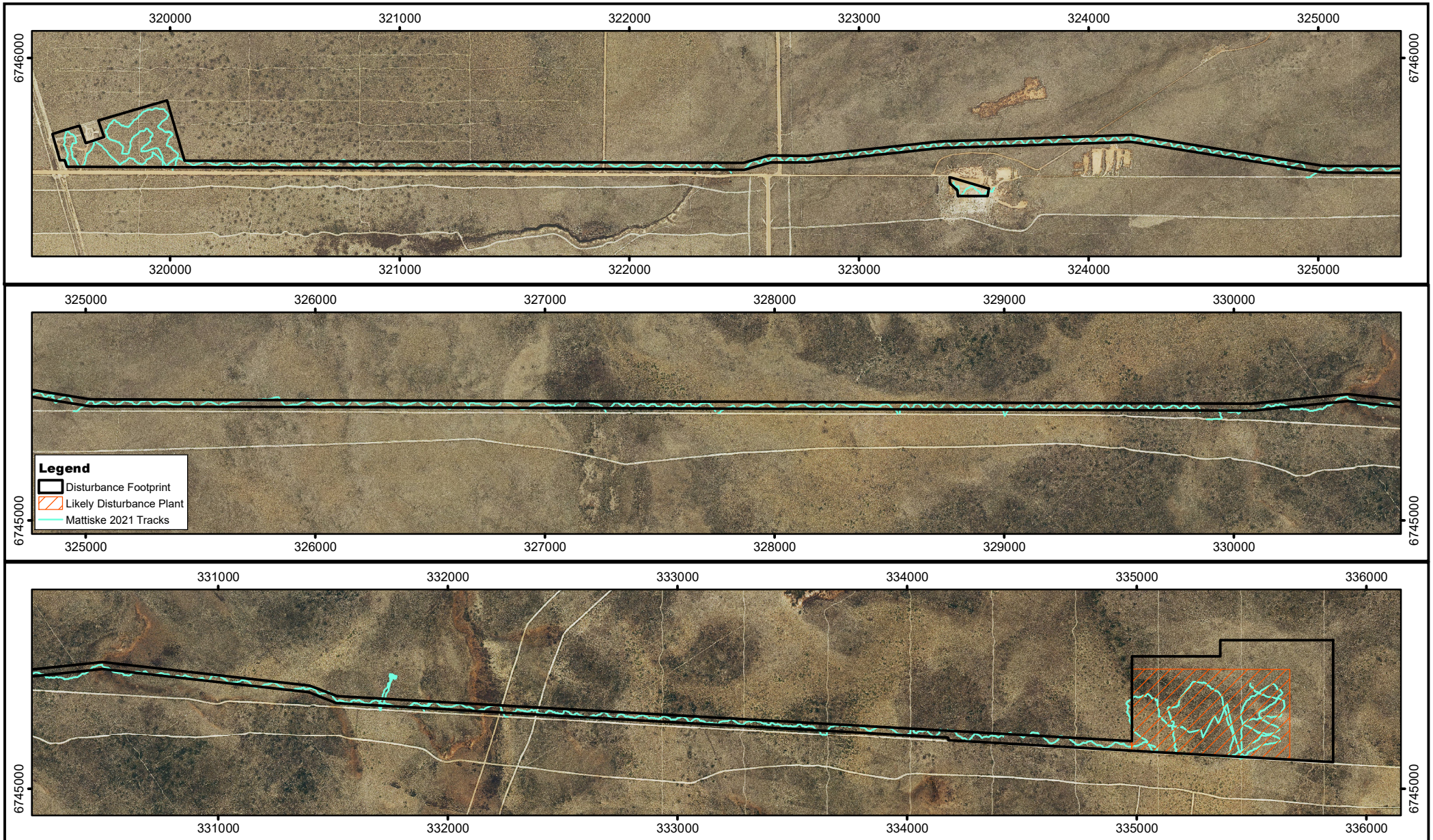
A range of conservation significant flora were located and recorded during this recent survey. The four priority species were recorded in the heath communities on the northern sandplains.

One *Paracalaena dixonii* (T) individual was recorded at a previous DBCA record of this taxon made in November 2011, within the survey area (Figure 2, Plate 2). This November 2011 DBCA record represented 24 individuals. *Paracalaena dixonii* (T) flowers profusely after summer fire (DAWE 2008), suggesting that one flowering individual recorded in 2021 likely represents a larger non-flowering population present in the area.

REFERENCES

Department of Agriculture, Water and the Environment [DAWE] (2008). *Approved Conservation Advice for Paracaleana dixonii Hopper & A.P.Br. nom. inval. (Sandplain Duck Orchid).* Available from: http://www.environment.gov.au/biodiversity/threatened/species/pubs/82050-conservation-advice.pdf.

Eco Logical, 2021. *West Erregulla Pipeline Flora and Fauna Survey.* Unpublished report prepared for Australian Gas Infrastructure Group, February 2021.



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Scale: 1:22,500
MGA94 (Zone 50)

CAD Ref: a2856F002_01

Date: January 2022 | Rev: A | A4

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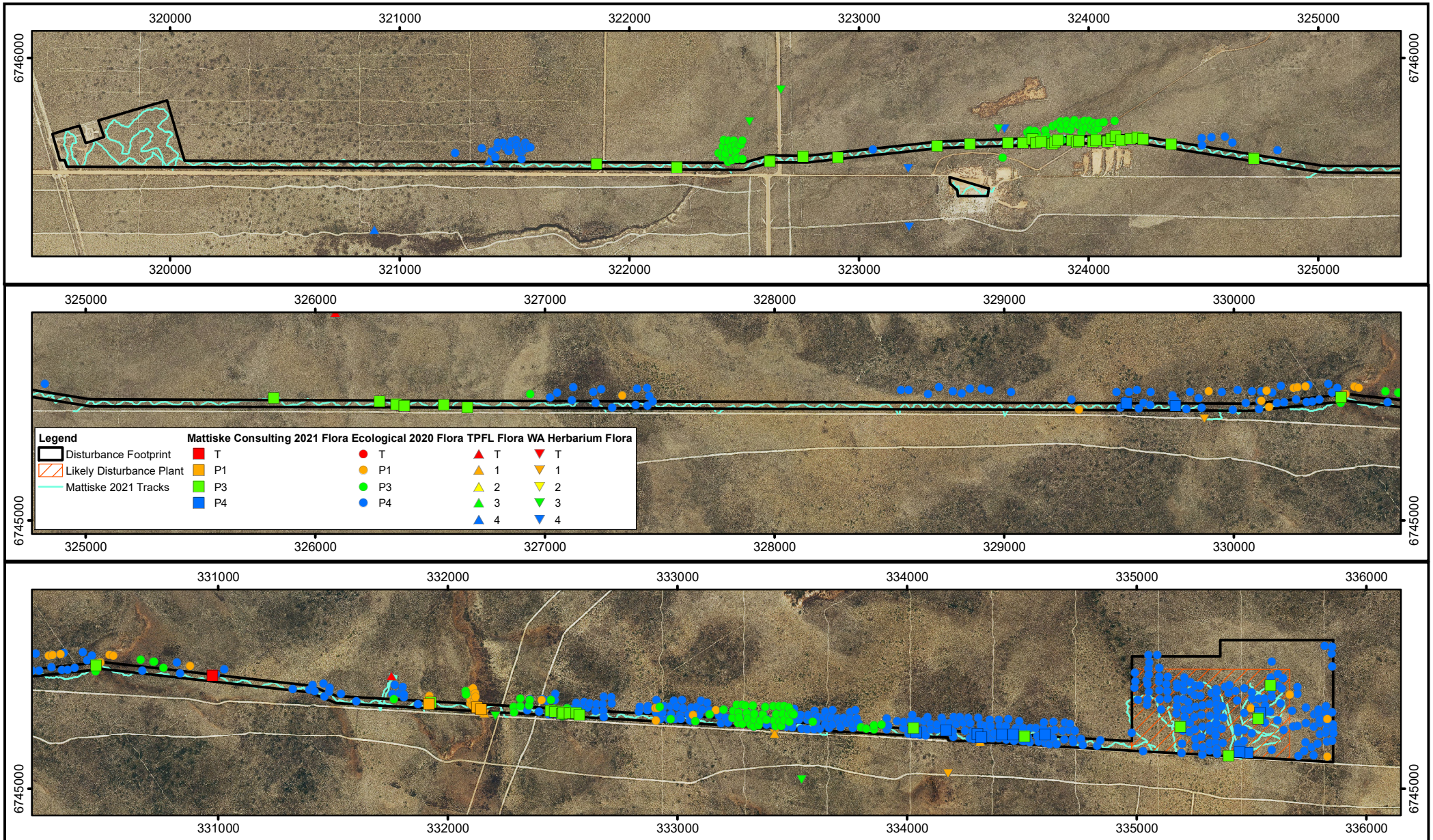
West Erregulla Pipeline Track and Foot Traverses

Figure: 1



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West Erregulla Pipeline
Flora Records

Figure: **2**