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Project/File:	304502117	Date:	09 April 2026

Reference: Twin Hills Project Vegetation Impact Memorandum

The Twin Hills Project (the Project) is located in the Geraldton Sandplains bioregion of Western Australia (WA) (**Figure 1**), approximately 260 kilometres (km) north of Perth. The Indicative Footprint comprises 543 hectares (ha) of land that is primarily cleared for crops and livestock grazing, with interspersed patches of remnant native vegetation that is generally (but not exclusively) associated with ridges, hills and slopes.

Stantec Australia Pty Ltd (Stantec) was engaged by Twin Hills Wind Farm Pty Ltd, care of Wind Prospect Pty Ltd (Wind Prospect) to undertake a detailed and targeted flora and vegetation survey, as well as a flora and vegetation desktop assessment and preliminary survey (Stantec 2025) to inform the development application process for the proposed Twin Hills Wind Farm development (the Project).

The objectives and methods adopted for the Survey were aligned with the following guidelines and technical documents:

- Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act);
- Biodiversity Conservation Act 2016 (BC Act);
- Environmental Protection Act 1986 (EP Act);
- EPBC Act Policy Statement 2.3 Wind Farm Industry (DEWHA 2009);
- Best Practice Guidelines – For implementation of Wind Farm Energy Projects in Australia (Auswind 2006);
- Environmental Factor Guidelines – Flora and Vegetation (EPA 2016a);
- Technical Guidance: Flora and vegetation surveys for environmental impact assessment (EPA 2016c);
- Survey Guidelines for Australia's Threatened orchids (Australia 2013);
- Approved Conservation Advice (s266B of the EPBC Act) for *Paracaleana dixonii* Hopper & A.P.Br. nom. inval. (Sandplain Duck Orchid) (DCCEEW 2008a);
- Approved Conservation Advice (s266B of the EPBC Act) for *Thelymitra stellata* (Star Sun-orchid) (DCCEEW 2008c);
- Approved Conservation Advice (s266B of the EPBC Act) for *Eucalyptus crispata* (Yandanooka Mallee) (DCCEEW 2008b);
- Significant Impact Guidelines – Matters of National Environmental Significance (DoE 2013);
- Statement of Environmental Principles, Factors, Objectives and Aims of EIA (EPA 2023) and
- Instructions for the preparation of data packages for the Index of Biodiversity Surveys for Assessment (IBSA) (EPA 2021).

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This memorandum provides an overall assessment of the potential impacts of the Project's activities on the environmental factor Flora and Vegetation, utilising the information collected during the 2025 Detailed Flora and Vegetation Study. This Memorandum follows receipt of the specific queries from EPA Services to Twin Hill's, communicated to Stantec on 25th and 26th of February 2026 and includes:

- Analysis of the proposed cleared vegetation types in the context of pre-European vegetation.
- Identification of the number of conservation significant flora species and paddock trees that will be removed.

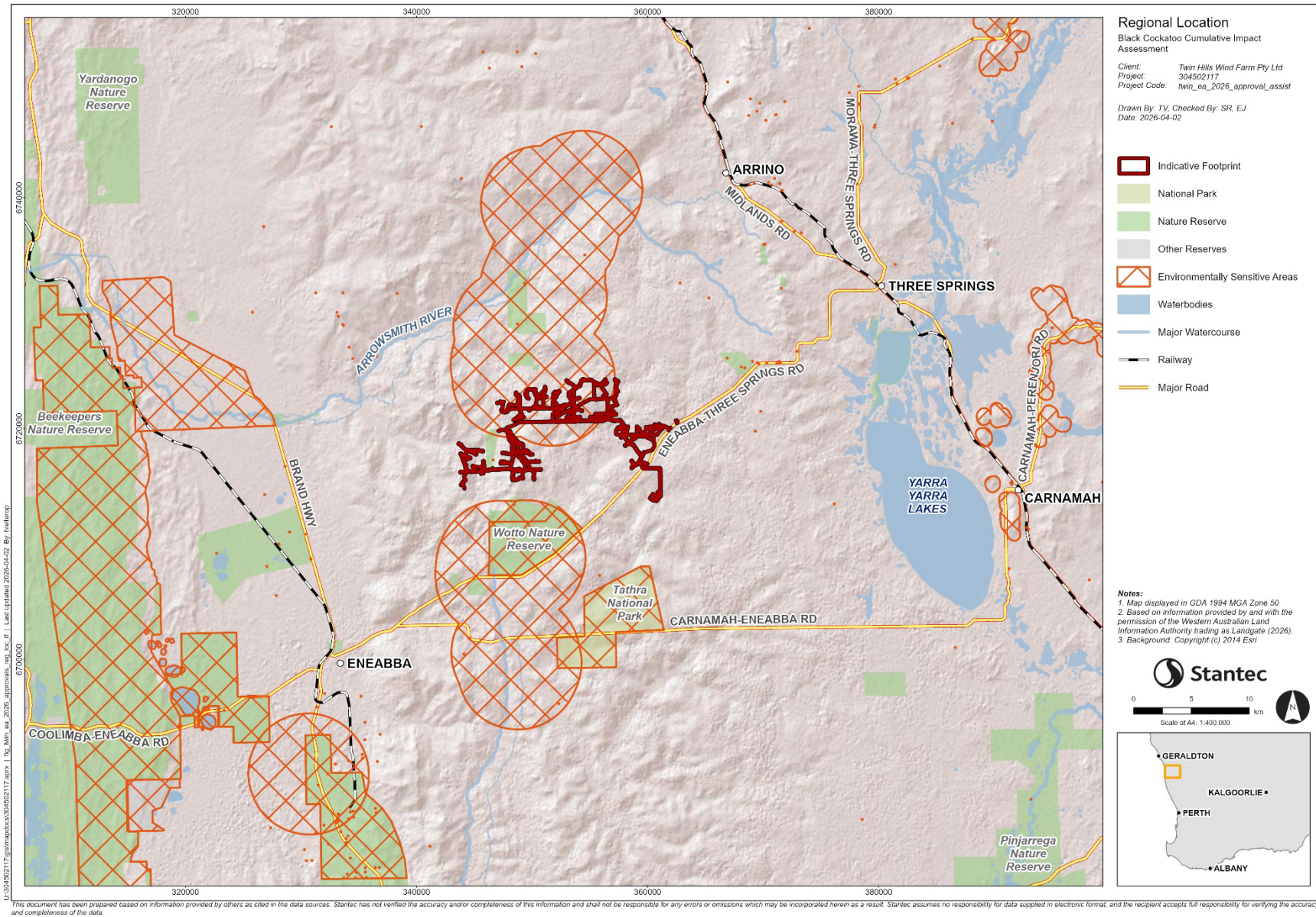


Figure 1: Regional Location of the Project showing indicative footprint.

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1.1 Vegetation

Beard (1975a) mapped the vegetation of the Northern Sandplains region of Western Australia on a broad scale (1:250,000). These vegetation units were reassessed by Shepherd *et al.* (2001) for the purpose of providing increased resolution of regions and accounting for the extensive land clearing and changes in land use since the creation of the original report by Beard (1975a). At a scale of 1:1,000,000 to 1:250,000, Beard (1975a) mapping only provides a broad overview of expected vegetation types within the Project Area.

The Project Area is comprised of three pre-European vegetation associations: Tathra 379, Tathra 49 and Tathra 391 (**Table 1**). The significance of clearing a vegetation association can be determined by comparing current extents (ha) with pre-European extents, and **Table 2** summarises the current and pre-European extent of the vegetation associations across three scales: state, bioregion and subregion. The current extent suggests that extensive land clearing has occurred across the three scales of assessment, with close to 50% or less of vegetation remaining.

In total the project will impact 543 ha of Tathra VSA (391, 49 & 379). The impacts on the individual extents of each VSA are as follows:

- **Tathra (391):** The current remaining pre-European extent of Tathra (391) VSA is 1,622.19 ha at State-wide, Bioregion and Subregion levels. The project will impact a 90 ha this VSA, resulting in a further 5.5% decrease of the remaining extent. After accounting for Project impacts, 1,532.19 ha (50.02%) of Tathra (391) remains across all spatial scales.
- **Tathra (49):** The remaining pre-European extent of Tathra (49) is 50.17% (26,102.69 ha) State-wide, 36.48% (14,489.68 ha) at the Bioregional scale, and 41.1% (13,618.88 ha) within the Subregion. The project will impact 10 ha of this VSA, resulting in a minor decrease of 0.0734% in the remaining extent within the subregion. Therefore, the current remaining pre-European extent of Tathra (49), combined with the impacts from the project, at a subregion level is 41.0%.
- **Tathra (379):** State-wide, 23.69% (129,736.79 ha) of the pre-European extent of Tathra (379) remains. with 23.70% (129,496.80 ha) remaining at the Bioregional scale and 30.17% (111,632.48 ha) at the Subregional scale. The Project will impact 443 ha of Tathra (379), resulting in a reduction of approximately 0.39% of subregional pre-European extent. Post impact, the remaining Subregional extent of Tathra (379) is 30.05%.

Given the low proportional reduction in remaining pre-European extent at the regional scale, impacts to VSAs resulting from the Indicative Footprint are not expected to be significant.

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Table 1: pre-European vegetation system associations and extent within the Indicative Footprint.

System	System Association Code	Description	Extent in the Indicative Footprint	
			Ha	%
Tathra	391	Shrublands; <i>Melaleuca uncinata</i> thicket	90	16.6
Tathra	49	Shrublands; mixed heath	10	1.8
Tathra	379	Shrublands; scrub-heath on lateritic sandplain in the central Geraldton Sandplain Region	443	81.6
Total			543	100

Table 2: Extent of pre-European vegetation system associations for the Indicative Footprint remaining across three scales (state, bioregion and subregion).

System	Scale	Pre-European extent (ha)	Current extent (ha)	Proportion remaining (%)	Current extent within the IUCN Class I-IV Reserves (ha)	Proportion of extent protected within IUCN Class I-IV Reserves (%)
Tathra (391)	State-wide	3,063.14	1,622.19	52.96	645.60	21.08
	Bioregion (Geraldton Sandplains)	3,063.14	1,622.19	52.96	645.60	21.08
	Subregion (Lesueur)	3,063.14	1,622.19	52.96	645.60	21.08
Tathra (49)	State-wide	52,134.84	26,102.69	50.17	10,650.49	20.43
	Bioregion (Geraldton Sandplains)	39,718.26	14,489.68	36.48	3,191.34	8.03
	Subregion (Lesueur)	33,139.33	13,618.88	41.10	3,191.30	9.63
Tathra (379)	State-wide	547,736.94	129,736.79	23.69	28,019.02	5.12
	Bioregion (Geraldton Sandplains)	546,507.25	129,495.80	23.70	28,003.65	5.12
	Subregion (Lesueur)	370,029.76	111,632.48	30.17	20,606.46	5.57

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1.2 Significant Flora

Three Threatened flora species have been recorded within the Survey Area, one of which was recorded from database searches and during the Survey (*Eucalyptus crispata* (En/T)), and two which were recorded during the Survey only: *Paracaleana dixonii* (En/T), *Thelymitra stellata* (En/T).

Two *Paracaleana dixonii* (En/T) specimens were recorded within the Survey Area during the Survey, in association with vegetation type LOW_Euc.tod_shrubland, comprising Low Open Woodland of *Eucalyptus tottiana*, over shrubland and totalling 1,336.37 ha (13.37% of the Survey Area). There are 20 vouchered records of *Paracaleana dixonii* (En/T) at the WAH.

One record, representing two specimens of *Thelymitra stellata* (En/T) was recorded within the Survey Area during the Survey, in association with vegetation type LOW_Euc.tod_shrubland. There are 20 vouchered records *Thelymitra stellata* (En/T) at the WAH.

There are three records, representing single specimens of *Eucalyptus crispata* (En/T) within the Survey Area; two records from the Survey and one record from DBCA database searches. *Eucalyptus crispata* (En/T) was found in association with vegetation type LW_CH_Euc.acc.Mel.con.Mel.marg, comprising Low Woodland of *Eucalyptus accedens*, over Tall Shrubland to Closed Heath of *Melaleuca concreta* and *Melaleuca marginata*, totalling 65.81 ha (0.66% of the Survey Area). There are 34 vouchered records of *Eucalyptus crispata* (En/T) at the WAH.

There were 22 Priority flora species recorded in the Survey Area from previous surveys/database searches and the Survey: including three Priority 1, five Priority 2, eight Priority 3 and 6 Priority 4 flora species.

No significant flora records have been found within the Indicative Footprint (**Figure 2**) and will therefore not be impacted by clearing from the project.

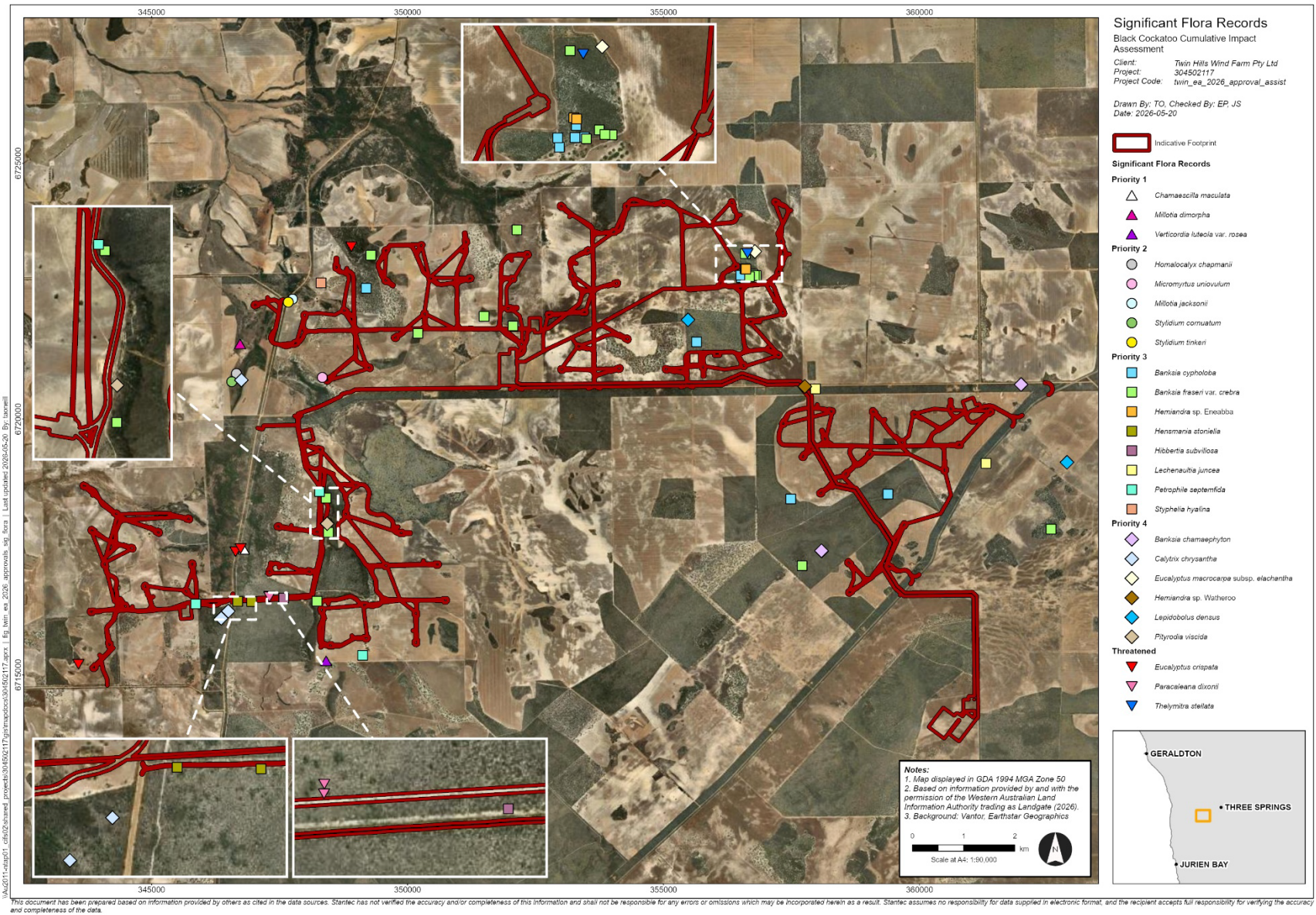


Figure 2: Significant flora records within the Survey Area.

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Although 336 suitable and 896 potential Black Cockatoo roosting and nesting trees were recorded within the Proposal Survey Area, none occur within the IF. Likewise, while significant flora records are present in the surrounding area, no significant flora species occur within the IF. Accordingly, clearing associated with the Proposal is not expected to result in direct impacts to significant flora species or Black Cockatoo roosting or nesting habitat.

At the regional scale, the Indicative Footprint results in a low proportional reduction in the remaining pre-European extent of assessed VSAs and is therefore not expected to result in a significant impact.

Yours sincerely

A handwritten signature in black ink, appearing to read 'P. Tapsell', is positioned above the company name.

Stantec Australia Pty Ltd

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