

Junction Vineyards Irrigation Development

Application Number: **03103**

Commencement Date:
25/08/2025

Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Junction Vineyards Irrigation Development

1.1.2 Project industry type *

Agriculture and Forestry

1.1.3 Project industry sub-type

Agriculture

1.1.4 Estimated start date *

01/02/2026

1.1.4 Estimated end date *

01/12/2026

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

The Proponent is seeking to clear 1,263 ha of native vegetation on Junction Vineyards, a property located in southwest NSW. The vegetation clearing is the initial step in establishing irrigated grape plantings. The vegetation proposed for clearing has been identified as potentially containing habitat for threatened species listed under the EPBC Act.

The proponent has already developed 491 ha of land on the same property for irrigated horticulture, and currently produces winegrapes.

Vegetation clearing will be the first step in the development of the site. This will be completed using heavy earthmoving plant and equipment, including bulldozers and graders. Cleared vegetation will be pushed into piles and burned. The cleared area will then be deep ripped and ploughed using agricultural plant and machinery. This will be followed by the installation of irrigation supply mains and lateral mains, establishment of the patch and row layout and the planting of grapevines. Drip line irrigation will be installed and connected to an existing water supply. This will allow for the irrigation system to become operational and supply water to the newly established vineyards. Irrigation water will be supplied from the proponent's existing irrigation pump site located on the western bank of the Darling River east of the site.

The area of land proposed for development is dominated by degraded chenopod shrubland, which makes up approximately 95 % of the area, with the remaining 5% consisting of degraded open woodland vegetation with scattered trees. 615 ha of woodland vegetation with higher tree densities within the footprint of the proposed development has been identified for retention. This vegetation has been identified as having higher habitat values for threatened species listed under the EPBC Act and will be retained to avoid impacts on these species.

The development area has been identified as having suitable soil types and topographical characteristics for the establishment of irrigated grapevines. A detailed soil survey and Irrigation Drainage Management Plan has been completed for areas that include most of the development area as well as some areas that are now proposed for retention. These documents will be updated to reflect the current proposal as part of the application to amend the Water Use approval under the NSW *Water Management Act 2000*.

As well as the 615 ha of woodland vegetation identified for retention the proponent has identified an additional 2,526 ha of land on the property which is proposed to be retained as an offset area. These offsets are a requirement of the approvals process under NSW legislation and are designed to mitigate the biodiversity losses that will result from the clearing of the land.

Please refer to Att_1_EPBC Significant Impact Assessment and Att_2_Site Map for further information on proposed clearing, retention and offset areas.

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

No

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

Planning consent has been obtained from Wentworth Shire Council under Part 4 of the NSW *Environmental Planning and Assessment Act 1979* for the installation of four pumps at the proponents existing pump site. A works approval has also been obtained under the NSW *Water Management Act 2000* for the installation of these pumps.

An amendment to the existing Water Use approval is required under the NSW *Water Management Act 2000* for the proposed expansion of the irrigation area.

An application to Local Land Services (LLS) under the NSW *Land Management (Native Vegetation) Code 2018* (LM Code) for native vegetation clearance has been lodged. This application was for the removal of approximately 1,878 ha of native vegetation. Following its initial assessment of the application, LLS advised that the proposed native vegetation clearing may have a significant impact on Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and may therefore require approval under the EPBC Act. As a result, LLS has requested that evidence be provided that approval under the EPBC Act is either unnecessary or has been granted, prior to proceeding with the application under the LM Code.

In response to this request James Golsworthy Consulting (JGC) undertook a self-assessment as per the *Matters of National Environmental Significance, Significant impact guidelines 1.1* (DoE 2013) on behalf of the proponent (Att_1_EPBC Significant Impact Assessment). The self-assessment included third party specialist studies and peer review. As a result of this assessment the area of native vegetation proposed for removal has been revised to the currently proposed area of 1,263 ha.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

The proposal is located on a large property in a relatively isolated part of south western NSW. No formal public consultation has occurred in relation to this proposal.

1.3.1 Identity: Referring party

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1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN 51124624148
Organisation name James Golsworthy Consulting Pty Ltd
Organisation address 3500 VIC

Referring party details

Name Troy Muster
Job title Senior Environmental Consultant
Phone 0350228411
Email troy@jgconsult.com.au
Address 140 Pine Avenue, Mildura VIC 3500

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

No

1.3.2.2 Is Person proposing to take the action an organisation or business? *

Yes

Person proposing to take the action organisation details

ABN/ACN 644961704
Organisation name Junction Vineyards Pty Ltd
Organisation address 28 Jindalee Road Coomealla NSW 2717

Person proposing to take the action details

Name Vince Littore
Job title Director
Phone 0419311030
Email vince@jrwt.com.au
Address 28 Jindalee Road Coomealla 2717

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

The NSW Department of Planning and Environment (DPE) issued a Remediation Order (Order No 202102617-1) to Junction Vineyards Pty Ltd under Section 11.5 of the *Biodiversity Conservation Act 2016* on 3 February 2023. This Remediation Order was issued following compliance action by DPE for 306 ha of unauthorised native vegetation removal. The content of this Remediation Order was confirmed following consultation between Junction Vineyards and DPE, and includes ongoing management and reporting requirements in relation to a 761 ha Remediation Area (Att_2_Site Map) for the 20 year term of the order.

Junction Vineyards self-reported harm to Aboriginal cultural heritage objects in November 2021. These impacts were related to the unauthorised native vegetation removal outlined above. Harm was confirmed at two sites, a hearth and an isolated quartzite artefact. Penalty Notices (3081211275 and 3081211284) were issued on 28 September 2022 by DPE to Junction Vineyards for an offence under Section 86 (2) of the *National Parks and Wildlife Act 1974*.

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

Junction Vineyards do not have an environmental policy and planning framework.

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

Yes

Proposed designated proponent organisation details

ABN/ACN 644961704
Organisation name Junction Vineyards Pty Ltd
Organisation address 28 Jindalee Road Coomealla NSW 2717

Proposed designated proponent details

Name Vince Littore
Job title Director
Phone 0419311030
Email vince@jrwt.com.au
Address 28 Jindalee Road Coomealla 2717

1.3.4 Identity: Summary of allocation

✔ Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

ABN/ACN	51124624148
Organisation name	James Golsworthy Consulting Pty Ltd
Organisation address	3500 VIC
Representative's name	Troy Muster
Representative's job title	Senior Environmental Consultant
Phone	0350228411
Email	troy@jgconsult.com.au
Address	140 Pine Avenue, Mildura VIC 3500

✔ Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	644961704
Organisation name	Junction Vineyards Pty Ltd
Organisation address	28 Jindalee Road Coomealla NSW 2717
Representative's name	Vince Littore
Representative's job title	Director
Phone	0419311030
Email	vince@jrwt.com.au
Address	28 Jindalee Road Coomealla 2717

✔ Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

No

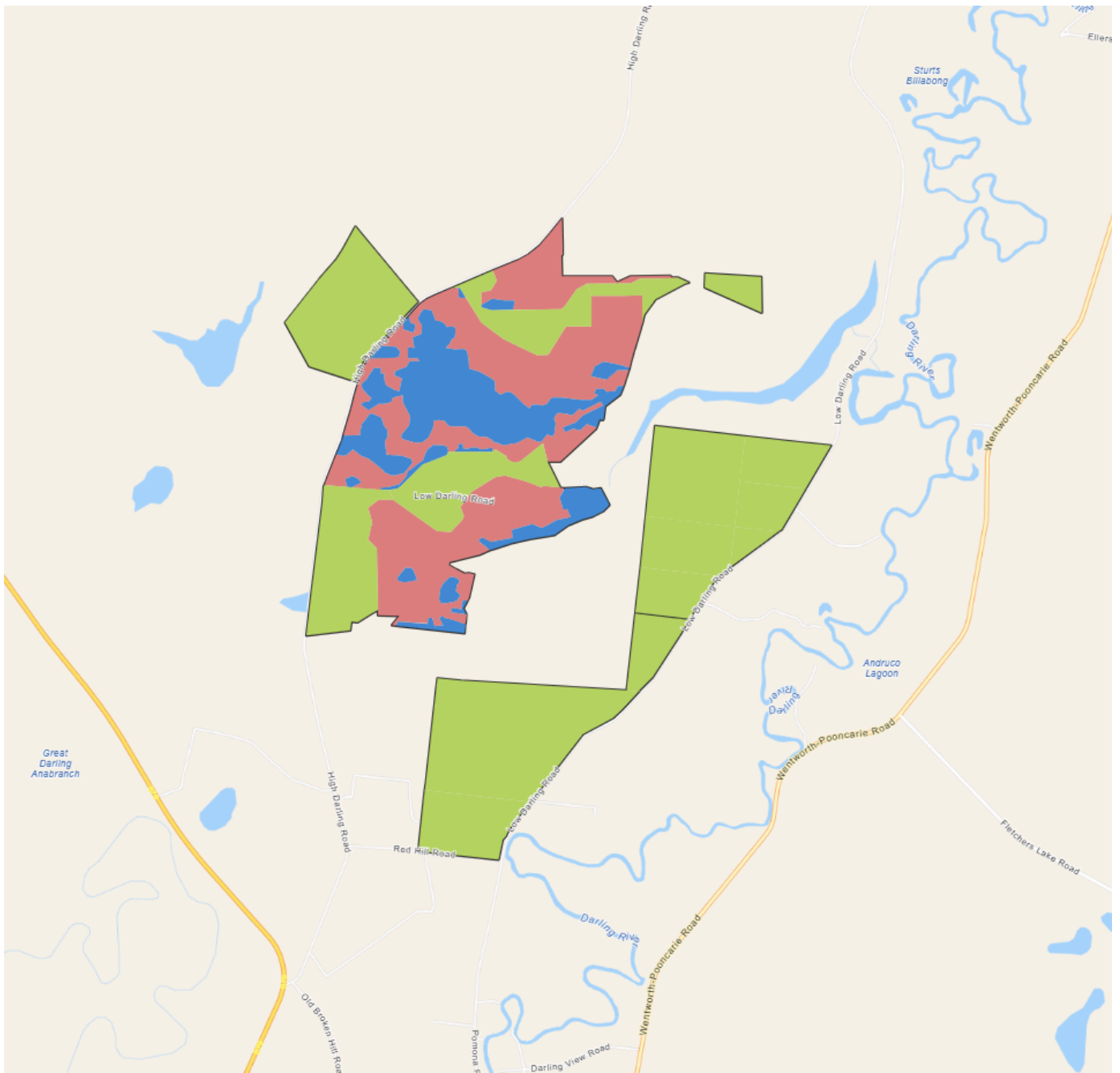
1.4 Payment details: Payment allocation

1.4.11 Who would you like to allocate as the entity responsible for payment? *

Person proposing to take the action

2. Location

2.1 Project footprint



Project Area: 4408.50 Ha **Disturbance Footprint:** 1264.20 Ha **Avoidance Area:** 615.82 Ha **Retention Area:** 2528.62 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Low Darling Road, Wentworth NSW 2648

2.2.2 Where is the primary jurisdiction of the proposed action? *

New South Wales

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

The project area is located on eight separate parcels of Freehold Land. The action area is located on a single parcel of Freehold land (Lot 5 DP 1253993).

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area's environment.

The proposed clearing area (treatment area) consists of 1,263 ha of native vegetation located on a 5,402 ha property owned by Junction Vineyards (Att_2_Site Map). The property is located on the western side of the Darling River approximately 20 km north of Wentworth in southwestern NSW. (Figure 1 Att_1_EPBC Significant Impact Assessment).

The property is located in the southern portion of Australia's semi-arid rangelands and has been subject to historic and ongoing grazing pressure from livestock (sheep and cattle) and introduced herbivores (feral goats and rabbits). This grazing pressure has impacted the composition and quality of native vegetation within the treatment area, and the surrounding property, including the proposed offset area. A relatively recent development in the region has been the establishment of intensive irrigated horticulture. These irrigation developments are possible due to the influence of the Wentworth weir forming a weir pool in these lower reaches of the Darling River. Numerous irrigation developments have been established on this section of the Darling River to take advantage of this weir pool. This includes the establishment of 491 ha of irrigated grapevines by Junction Vineyards on the property (Att_2_Site Map). The availability of irrigation water, together with the suitable soil types, makes the conversion to this high value agriculture usage an economically attractive option.

The property is no longer used for grazing by livestock, which was discontinued when the property was purchased by Junction Vineyards approximately five years ago. Current land uses on the property consists of irrigated grapevines and conservation. Native vegetation currently covers most of the property outside of the areas that have been developed for irrigated horticulture (491 ha) and the associated infrastructure, farm buildings, tracks and fences, this includes the 761 ha Remediation Area and the proposed 2,526 ha offset area (Att_2_Site Map). Land use surrounding the property is dominated by rangeland grazing, with irrigated horticulture also present to the north and south of the property.

The climate is semi-arid with a mean annual rainfall of 284.5 mm (BoM – Wentworth). No natural waterways or waterbodies are present within the treatment area. Due to the free draining soils, low rainfall and relatively flat terrain, significant surface water run-off is rare and generally limited to extreme rainfall events. To the east of the treatment area is the floodplain of the Darling River which is inundated during large flood events. This includes Tinghi Creek which runs from the Darling River into the north-east of the property and south toward the centre of the property and within 800 m of the treatment area (Att_2_Site Map). During the most recent large flood event in the Darling River (2022) Tinghi Creek flooded to the extent that significant areas of floodplain to the east and south-east of the treatment area were inundated with floodwater. These areas include large sections of the eastern part of the proposed offset area.

The parcel of land where the proposed development is to take place is zoned as RU1 - Primary Production zone under the Wentworth Local Environment Plan. The intended use of the land (irrigated horticulture) is an activity that can take place without development consent in land zoned as RU1- Primary Production.

3.1.2 Describe any existing or proposed uses for the project area.

The project area has been used for agricultural purposes since the mid-late nineteenth century. For most of this time, the predominant land use was for pastoral purposes, with sheep and cattle grazing being the main focus. The project area was destocked five years ago when the proponent purchased the property with plans to develop suitable areas for irrigated grapevines.

Currently 491 ha has been developed for irrigated grapevines along with associated infrastructure (pumps, pipelines), farm buildings and fences. The proponent also plans to convert the 1,263 ha treatment area to irrigated grapevines. Native vegetation will be retained on the remaining areas of the property, including the proposed 2,526 ha offset area and the current 761 ha remediation area.

The surrounding land consists of mainly native vegetation which is predominately used for rangeland grazing. Other land uses include irrigated horticulture on neighboring properties to the north and south. This is the most significant land use in terms of economic value in the local area.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

The most important and significant natural feature within the vicinity of the project area is the Darling River which is located approximately 4.5 km east of the treatment area (Att_2_Site Map). The river constitutes the eastern boundary of a small portion of the property located on the eastern side of the Low Darling Road which is where the proponents existing irrigation pump station is located (Att_2_Site Map). The presence of the Darling River is the driver for the proponent's plans to clear and redevelop a portion of the property for irrigated grapevines, as the required irrigation water will be sourced from the river.

The Darling River is an integral part of the Murray-Darling Basin system. Its waters sustain towns and farms along its course throughout the far west of NSW. It supports a wide and unique array of native plant and animal species. As outlined above much of the eastern part of the property is occupied by the floodplain of the Darling River which is inundated during large flood events. This includes Tinghi Creek, an ephemeral creek which runs from the Darling River during large flood events into the north-east of the property and south toward the centre of the property and within 800 m of the treatment area (Att_2_Site Map). During the most recent large flood event in the Darling River (2022) Tinghi Creek flooded to the extent that significant areas of floodplain to the east and south-east of the treatment area were inundated with floodwater. These areas include large sections of the eastern part of the proposed offset area.

Away from the riparian corridor and floodplain of the Darling River, the landform quickly gives way to arid rangelands that are typical of the south western corner of NSW. As outlined above the surrounding landscape is predominately native vegetation which is used for rangeland grazing.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The treatment area is predominately located on a gently undulating sandplain landform. Elevation within the treatment area ranges from 34m AHD in the north to 50 m AHD in the south. Although the elevation within the proposed offset area also ranges from 34 m AHD to 50 m AHD, most of the area is located at lower elevations (34 m AHD to 36 m AHD) on alluvial soils, including the floodplain of the Darling River.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

An assessment of native vegetation within the treatment area was undertaken by James Golsworthy Consulting in June 2025 (Att_1_EPBC Significant Impact Assessment).

The assessment revealed that the treatment area contains three Plant Community Types (PCTs). These are:

- PCT 153 Black Bluebush low open shrubland of the alluvial plains and sandplains of the arid and semi-arid zones
- PCT 58 Black Oak - Western Rosewood open woodland on deep sandy loams mainly in the Murray Darling Depression Bioregion
- PCT 15 Black Box open woodland wetland with chenopod understorey mainly on the outer floodplains in south-western NSW (mainly Riverina Bioregion and Murray Darling Depression Bioregion).

The treatment area consists of 1,263 ha of native vegetation made up of 1,198.3 ha of PCT 153, 48.3 ha of PCT 58, and 16.5 ha of PCT 15 (Table 2 and Figure 6, Att_1_EPBC Significant Impact Assessment).

The assessment included a vegetation integrity assessment using the Biodiversity Assessment Method (BAM) and an assessment of habitat attributes, including hollows.

The following EPBC listed species were considered to have likely habitat within the treatment area and a potential population in the local region:

- Southern Whiteface *Aphelocephala leucopsis* (Vulnerable)
- Grey Falcon *Falco hypoleucos* (Vulnerable)
- Major Mitchell's Cockatoo (eastern) *Lophochroa leadbeateri leadbeateri* (Endangered)
- South-eastern Hooded Robin *Melanodryas cucullata cucullata* (Endangered)
- Blue-winged Parrot *Neophema chrysostoma* (Vulnerable)
- Corben's Long-eared Bat *Nyctophilus corbeni* (Vulnerable)
- Regent Parrot (eastern) *Polytelis anthopeplus monarchoides* (Vulnerable)

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

An assessment of native vegetation within the treatment area was undertaken by James Golsworthy Consulting in June 2025 (Att_1_EPBC Significant Impact Assessment).

The site assessment confirmed that the activity area contains the following three PCTs:

- PCT 153 Black Bluebush low open shrubland of the alluvial plains and sandplains of the arid and semi-arid zones (1,198.3 ha)
- PCT 58 Black Oak - Western Rosewood open woodland on deep sandy loams mainly in the Murray Darling Depression Bioregion (48.3 ha)
- PCT 15 Black Box open woodland wetland with chenopod understorey mainly on the outer floodplains in south-western NSW (mainly Riverina Bioregion and Murray Darling Depression Bioregion) (16.5 ha).

The type and extent of each PCT in the treatment area is identified in Table 2 and Figure 6, Att_1_EPBC Significant Impact Assessment. The assessment confirmed that PCT 153 was the dominant vegetation type, making up 95% of the treatment area, while PCT 58 made up 4% and PCT 15 made up 1%.

A total of 20 native flora species and 5 exotic weed species were recorded within the treatment area (Table 3, Att_1_EPBC Significant Impact Assessment).

Vegetation integrity scores for the activity area are indicated in Table 4 of the assessment report (Att_1_EPBC Significant Impact Assessment). These scores indicate that native vegetation within the treatment area was in poor condition with all PCTs recording a vegetation integrity score of less than 20 (PCT 153: 19.9, PCT 58: 18.3, PCT 15: 16.5).

Additional habitat data collected during the vegetation assessment indicated a low density of hollows across the activity area, with no hollows recorded within PCT 153, which makes up 95 % of the activity area. Within PCT 58, which makes up 4% of the activity area, only smaller hollows (<10 cm diameter) were recorded. Within PCT 15, which makes up 1% of the activity area, small (<10 cm diameter) and medium (10-30 cm diameter) were recorded. No large hollows (>30 cm diameter) were recorded. (Table 7, Att_1_EPBC Significant Impact Assessment)

Soils within the treatment area generally ranged from sandy loams to clay loams, with coarser textured soils at higher elevations and finer textured soils at lower elevations. PCT 58 generally contained lighter textured soils, PCT 153 medium textured soils, and PCT 15 heavier textured soils.

3.3 Heritage

3.3.1 Describe any Commonwealth Heritage Places Overseas or other places recognised as having heritage values that apply to the project area.

Not applicable to this site.

3.3.2 Describe any Indigenous heritage values that apply to the project area.

The proponent engaged Austral Archeology to conduct an Aboriginal Cultural Heritage Due Diligence Assessment in 2021 which included the treatment area. This assessment resulted in the discovery of a hearth which is located within the proposed woodland retention area near the perimeter of the treatment area (Hearth 1 Att_3_Aboriginal Cultural Heritage Sites) (Att_3_Aboriginal Cultural Heritage Sites will not be made publicly available due to cultural sensitivity reasons). A subsequent site inspection by Heritage NSW in 2022 also identified a stone artefact (silcrete flake) in the treatment area (Artefact 5 Att_3_Aboriginal Cultural Heritage Sites) (Att_3_Aboriginal Cultural Heritage Sites will not be made publicly available due to cultural sensitivity reasons).

Aboriginal cultural heritage sites cannot be impacted without an approval under the *National Parks and Wildlife Act 1974* from Heritage NSW. The proponent intends to avoid impacts to the identified hearth site and to obtain an Aboriginal Heritage Impact Permit in relation to the identified stone artifact site within the treatment area (Att_3_Aboriginal Cultural Heritage Sites) (Att_3_Aboriginal Cultural Heritage Sites will not be made publicly available due to cultural sensitivity reasons).

A review of the NSW Aboriginal Heritage Information Management System (AHIMS) indicated that a further seven cultural heritage sites are located on the property outside of the treatment area (Att_3_Aboriginal Cultural Heritage Sites) (Att_3_Aboriginal Cultural Heritage Sites will not be made publicly available due to cultural sensitivity reasons). These sites will not be impacted by the proposal.

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

The climate of the local area is semi-arid. The closest BoM weather station is located at Wentworth (20km south) where the mean annual rainfall is 285 mm and an annual average evaporation rate of 2180 mm.

The property is located within the catchment of the Darling River. The treatment area is situated approximately 4.6 km west of the Darling River (at the nearest point) (Att_2_Site Map) and is elevated above the riparian floodplain. The topography of the treatment area consists mainly of a gently undulating sandplain. Overall, the topography is relatively flat with elevation ranging from approximately 34 m AHD at the lowest point to around 50 m AHD at the highest point.

Due to the soil type, low rainfall, and relatively flat terrain, significant surface water flows are rare and limited to extreme rainfall events. No waterways or waterbodies are present within the treatment area. To the east of the treatment area is the floodplain of the Darling River which is inundated during large flood events. This includes Tinghi Creek which runs from the Darling River into the north-east of the property and south toward the centre of the property and within 800 m of the treatment area (Att_2 Site Map). During the most recent large flood event in the Darling River (2022) Tinghi Creek flooded to the extent that significant areas of floodplain to the east and south-east of the treatment area were inundated with floodwater. These areas include large sections of the eastern part of the proposed offset area.

Groundwater impact assessments have been previously commissioned by the proponent and the previous landowner. These investigations include the area that is currently approved for irrigation as well as most to the treatment area. The assessments considered the potential impacts to the groundwater segments that are located beneath the area that was proposed for development. Irrigation developments carry the risk of potentially increasing the recharge rates of groundwater beneath land that is subject to irrigation. There is also the risk of mobilising soil salts and transporting them into the Darling River. The resulting increase in salinity has the potential to adversely impact Matters of National Environmental Significance such as listed threatened freshwater species and Ramsar listed wetlands.

The most recent assessment was undertaken by EMM in 2024 (Att_4_Groundwater Impact Assessment). This assessment covered an area of 1,800 ha of irrigation development that included the existing irrigation area (approx. 490 ha), the northern part of the treatment area (approx. 820 ha), and areas of woodland that are now proposed for retention around the northern part of the treatment area (approx. 490 ha). The assessment modelled the in-river salinity impact in the Murray River by calculating EC impacts at Morgan in SA over a 30 year period. The modelled EC impact at Morgan was 0.0043 EC which is well below the threshold of 0.1 EC, which defines a significant impact under the Basin Salinity Management (BSM) Procedures (Murray Darling Basin Authority 2023).

A revised groundwater impact assessment will be undertaken to incorporate the entirety of the treatment area as part of the irrigation approval requirements under the *Water Management Act 2000*.

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section	Controlling provision	Impacted	Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	No	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes
S20	Migratory Species	Yes	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	No	Yes
S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The closest World Heritage listed area in the Willandra Lakes located approximately 100 km east northeast of the treatment area. The proposal will not have any impact on this site, or any other World Heritage listed areas.

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The closest National Heritage places to the activity area are:

- Willandra Lakes (Mungo) - 100 km east northeast
- City of Broken Hill - 215 km north northwest.

The proposed works will not have any impact on these, or any other National Heritage Places.

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Ramsar wetland
Yes		Banrock Station Wetland Complex
Yes		Riverland
Yes		The Coorong, and Lakes Alexandrina and Albert Wetland

4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

There will be no direct or indirect impacts on the identified Ramsar listed wetlands. The wetlands listed are located across the state border in South Australia. None of the three are close to the treatment area and there will be no impacts on them at any level as a result of the proposed activities.

The water that is used for irrigation is through a water allocation under the *Water Management Act 2000*. There will be no net increase in the total quantum of water removed from the Murray-Darling system as a result of the proposed works.

The straight line separation distance between the listed wetlands and the project site is:

- Banrock Station Wetland Complex: 156 km west southwest
- Riverland: 108 km west
- The Coorong, Lakes Alexandrina and Albert Wetland: 320 km southwest.

This separation distance precludes any direct or indirect interaction between the wetlands and the activity area.

Increased downstream salinity is the most likely water quality impact resulting from the proposal. Downstream salinity impacts are assessed as part of the NSW new irrigation development approvals process by estimating the salinity (EC) impact in the Murray River at Morgan in South Australia over a 30-year time period. A previous groundwater impact assessment, completed by a suitably qualified hydrogeologist, for irrigation development on the property (Att_4_Groundwater Impact Assessment) indicates a minimal salinity impact on the Murray River at Morgan in SA, which is well below the 0.1 EC threshold which defines a significant impact under the BSM Procedures (MDBA 2023).

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

Direct impact	Indirect impact	Species	Common name
No	No	<i>Amytornis striatus howei</i>	Murray Mallee Striated Grasswren, Striated Grasswren (sandplain)
Yes	No	<i>Aphelocephala leucopsis</i>	Southern Whiteface
No	No	<i>Atriplex infrequens</i>	
No	No	<i>Bidyanus bidyanus</i>	Silver Perch, Bidyan
No	No	<i>Botaurus poiciloptilus</i>	Australasian Bittern
No	No	<i>Brachyscome papillosa</i>	Mossgiel Daisy
No	No	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper
No	No	<i>Calidris ferruginea</i>	Curlew Sandpiper
No	No	<i>Craterocephalus fluviatilis</i>	Murray Hardyhead
Yes	No	<i>Falco hypoleucos</i>	Grey Falcon
No	No	<i>Galaxias rostratus</i>	Flathead Galaxias, Beaked Minnow, Flat-headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow
No	No	<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe
No	No	<i>Grantiella picta</i>	Painted Honeyeater
No	No	<i>Hemiaspis damelii</i>	Grey Snake
No	No	<i>Lathamus discolor</i>	Swift Parrot
No	No	<i>Leipoa ocellata</i>	Malleefowl
No	No	<i>Lepidium monoplocoides</i>	Winged Pepper-cress
No	No	<i>Litoria raniformis</i>	Southern Bell Frog, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog
Yes	No	<i>Lophochroa leadbeateri leadbeateri</i>	Major Mitchell's Cockatoo (eastern), Eastern Major Mitchell's Cockatoo, Pink

Direct impact	Indirect impact	Species	Common name
			Cockatoo (eastern)
No	No	<i>Maccullochella macquariensis</i>	Trout Cod
No	No	<i>Maccullochella peelii</i>	Murray Cod
No	No	<i>Macquaria australasica</i>	Macquarie Perch
No	No	<i>Manorina melanotis</i>	Black-eared Miner
Yes	No	<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin, Hooded Robin (south-eastern)
Yes	No	<i>Neophema chrysostoma</i>	Blue-winged Parrot
Yes	No	<i>Nyctophilus corbeni</i>	Corben's Long-eared Bat, South-eastern Long-eared Bat
No	No	<i>Pedionomus torquatus</i>	Plains-wanderer
No	No	<i>Phascolarctos cinereus</i> (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
Yes	No	<i>Polytelis anthopeplus monarchoides</i>	Regent Parrot (eastern)
No	No	<i>Rostratula australis</i>	Australian Painted Snipe
No	No	<i>Solanum karsense</i>	Menindee Nightshade
No	No	<i>Stagonopleura guttata</i>	Diamond Firetail
No	No	<i>Swainsona murrayana</i>	Slender Darling-pea, Slender Swainson, Murray Swainson-pea
No	No	<i>Swainsona pyrophila</i>	Yellow Swainson-pea

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions
No	No	Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions
No	No	Mallee Bird Community of the Murray Darling Depression Bioregion

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

The site assessment undertaken by James Golsworthy Consulting included a likelihood of occurrence assessment for the threatened species identified as known or likely to occur in the treatment area (Table 14 Att_1_EPBC Significant Impact Assessment). Species assessed as having suitable habitat within the treatment area and a potential population in the local region were short-listed for further assessment.

Below is a summary of the seven species that were considered to be directly impacted by the proposed action. No species were considered to be indirectly impacted.

1. **Southern Whiteface *Aphelocephala leucopsis* (Vulnerable)**: Open woodland habitat likely to be suitable. Recent records on property. Further assessment required.
2. **Grey Falcon *Falco hypoleucos* (Vulnerable)**: Suitable nesting habitat along Tinghi Creek and Darling River will not be impacted. Suitable foraging habitat within treatment area. Some scattered records in the local region. Further assessment required.
3. **Major Mitchell's Cockatoo (eastern) *Lophochroa leadbeateri leadbeateri* (Endangered)**: Open woodland habitat in treatment area likely to be suitable. Recent records in the local region. Further assessment required.
4. **South-eastern Hooded Robin *Melanodryas cucullata cucullata* (Endangered)**: Some eucalypt woodland habitat present in treatment area. Record on property on edge of treatment area. Further assessment required.
5. **Blue-winged Parrot *Neophema chrysostoma* (Vulnerable)**: Suitable foraging habitat (grassy woodlands, grasslands) may be present in and around treatment area. Some scattered records in the local region. Further assessment required.
6. **Corben's Long-eared Bat *Nyctophilus corbeni* (Vulnerable)**: Woodland habitat in treatment area likely to be suitable. Limited scattered records in local region (nearest approx. 25 km south-east of treatment area). Further assessment required.
7. **Regent Parrot (eastern) *Polytelis anthopeplus monarchoides* (Vulnerable)**: Woodland habitat in treatment area suitable for foraging only. Suitable nesting habitat (large River Red Gums) along Darling River approx. 4 km east of treatment area. No known breeding population on the Darling River. No mallee woodlands (preferred foraging habitat) in treatment area or on property. Nearest record approx. 25 km south of treatment area in Victoria. Nearest record on Darling River approx. 50 km north-east of treatment area. Further assessment required.

The site assessment undertaken by James Golsworthy Consulting included a review of the likelihood of occurrence for each of the three identified ecological communities (page 28 Att_1_EPBC Significant Impacts Assessment). None of the identified communities were considered to be impacted. Below is a summary of this assessment.

- **Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions**: No Buloke was observed during this assessment. Casuarina woodland vegetation was observed, however the overstorey consisted of Black Oak (*Casuarina pauper*) with Sugarwood (*Myoporum platycarpum*) and Rosewood (*Alectryon oleifolius*) also present. This threatened ecological community is not present within the treatment area and will not be impacted by the proposed native vegetation removal. No further assessment is required.
- **Coolibah – Black Box Woodlands of the Darling**: This community is not present within the treatment area or on the property. Coolibah (*Eucalyptus coolabah* subsp. *coolabah*) must be present in the tree canopy of this community. Coolibah was not observed during the site assessment and is not known to occur in the local area. No further assessment of impacts on this threatened ecological community is required.
- **Mallee Bird Community of the Murray Darling Depression Bioregion**: This community is not present within the treatment area or on the property. For this ecological community to be present native vegetation must contain an area or areas of at least 5 ha dominated by mallee eucalypt trees.

No such areas were observed during the site assessment. No further assessment of impacts on this threatened ecological community is required.

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact?

*

No

4.1.4.6 Describe why you do not consider this to be a Significant Impact. *

The assessment undertaken by James Golsworthy Consulting included an assessment against the relevant 'significant impact criteria described in the *Matters of National Environmental Significance, Significant impact guidelines 1.1* (DoE 2013) for the seven species assessed as directly impacted by the proposed action (pages 29-51 Att_1_EPBC Significant Impact Assessment). Below is a summary of the significant impact assessment.

- 1. Southern Whiteface *Aphelocephala leucopsis* (Vulnerable):** The revised proposal is unlikely to impact on a significant area of woodland habitat for Southern Whiteface (PCT 58 and PCT 15) that is suitable for breeding, roosting and foraging). Approximately 65 ha of degraded open woodland habitat (vegetation integrity score <20) within the revised treatment area is proposed for removal which makes up 5% of the revised treatment area. This habitat contains a sparse density of habitat trees (approximately 110) that are isolated from the larger areas of woodland habitat with a higher habitat tree density that will be retained. The large areas of woodland habitat retained on the property (including within the proposed set aside area) and in the surrounding area are likely to provide more suitable nesting, roosting and foraging habitat. Areas of degraded PCT 153 (vegetation integrity score < 20), which makes up 95% of the revised treatment area, are likely to provide less suitable habitat (foraging only). The loss of approximately 65 ha of degraded woodland habitat is unlikely to significantly reduce the available nesting, roosting and foraging habitat for the species in the local area. A review of the NSW State Vegetation Type Map indicates that this represents approximately 0.2% of suitable woodland habitat within 10 km of the revised treatment area. The majority of suitable woodland habitat on the property will be retained. The revised proposal will not isolate or fragment the retained areas of suitable woodland habitat on the property or in the surrounding landscape. The revised proposal is unlikely to have a significant impact on Southern Whiteface.
- 2. Grey Falcon *Falco hypoleucos* (Vulnerable):** Vegetation within the revised treatment area is likely to provide degraded foraging habitat (vegetation integrity score <20) for Grey Falcon, particularly the small areas of degraded woodland habitat within the revised treatment area. The species prefers to nest in the tallest trees along watercourses, particularly River Red Gum. This habitat occurs along the Darling River approx. 4 km east of the revised treatment area, however it is not present in the revised treatment area. The revised proposal is unlikely to impact suitable nesting trees. The species consists of a single population with an estimated total population size of <1,000 mature individuals. Given the low population densities and large home range (likely > 100 km²), the revised proposal is likely to impact a small proportion of the total foraging area of a breeding pair of Grey Falcon. The revised proposal will not isolate or fragment the remaining areas of suitable habitat for the species on the property or in the surrounding landscape which is predominately native vegetation. The revised proposal is unlikely to have a significant impact on Grey Falcon.
- 3. Major Mitchell's Cockatoo (eastern) *Lophochroa leadbeateri leadbeateri* (Endangered):** The revised proposal will not impact a significant area of woodland habitat for Major Mitchell's Cockatoo (PCT 58 and PCT 13). Approximately 65 ha of scattered and woodland habitat within the revised treatment area is proposed for removal which makes up 5% of the revised treatment area. This habitat contains a sparse density of habitat trees (approximately 110) that are isolated from the larger areas of woodland habitat with a higher habitat tree density that will be retained. The site assessment confirms that the large areas of woodland habitat retained on the property (including within the proposed set aside area) are likely to provide more suitable nesting, roosting and foraging habitat. Areas of PCT 153 which is the dominant vegetation type, making up 95% of the revised treatment area, will provide less suitable habitat (foraging only). The loss of approximately 65 ha of isolated and degraded woodland habitat is unlikely to significantly reduce the available nesting, roosting and foraging habitat for the species in the local area. The majority of suitable woodland habitat on the property will be retained. The revised proposal will not isolate or fragment the retained areas of suitable woodland habitat on the property or in the surrounding landscape, providing a large and well connected area of suitable habitat. The revised proposal is unlikely to have a significant impact on

Major Mitchell's Cockatoo.

4. **South-eastern Hooded Robin *Melanodryas cucullata cucullata* (Endangered)**: The revised proposal will not impact a significant area of suitable woodland habitat for South-eastern Hooded Robin (PCT 58 and PCT 13). Approximately 65 ha of scattered open woodland habitat within the revised treatment area is proposed for removal which makes up 5% of the revised treatment area. This habitat is degraded (vegetation integrity score <20) and contains a sparse density of habitat trees and shrubs that are isolated from the larger areas of woodland habitat that will be retained. The large areas of woodland habitat retained on the property and in the surrounding area are likely to provide more suitable nesting, roosting and foraging habitat. Areas of PCT 153 which is the dominant vegetation type, making up 95% of the revised treatment area, does not provide suitable habitat for the species. The loss of approximately 65 ha of isolated and degraded woodland habitat is unlikely to significantly reduce the available nesting, roosting and foraging habitat in the local area. The majority of suitable woodland habitat on the property will be retained. The revised proposal will not isolate or fragment the retained areas of suitable woodland habitat on the property or in the surrounding landscape, providing a large and well-connected area of suitable habitat. The revised proposal is unlikely to have a significant impact on any local population of Southeastern Hooded Robin.

5. **Blue-winged Parrot *Neophema chrysostoma* (Vulnerable)**: Blue-winged Parrot may utilise the local region for foraging and staging during the nonbreeding season from autumn to early spring, prior to migrating south to suitable breeding habitat in southern Victoria, south-eastern South Australia, and Tasmania. The revised treatment area is likely to provide suitable foraging habitat for Blue-winged Parrot, in particular areas of PCT 153 which is the dominant vegetation type within the revised treatment area (1,198 ha). The site assessment confirms that this vegetation is highly degraded (vegetation integrity score <20). There are currently an estimated 10,000 mature Blue Winged Parrots in the wild. Records indicate that the species is sparsely distributed in the local region during the nonbreeding period (autumn to early spring) and is unlikely to utilise the revised treatment area on a regular basis, if at all. A review of the NSW State vegetation Type Map indicates that the revised proposal will impact approximately 2.7% of potential foraging and staging habitat within 10 km of the revised treatment area. The loss of potential areas of degraded habitat within the revised treatment area is likely to impact a small proportion of the total foraging habitat in the local region and across the populations estimated area of occupancy (11,000 km²). In addition, the environment surrounding the revised treatment area is predominately native vegetation, providing a large and well-connected area of habitat containing large areas of suitable foraging habitat, including low chenopod shrubland. The revised proposal will not isolate or fragment these of suitable habitat. The revised proposal is unlikely to have a significant impact on Blue-winged Parrot.

6. **Corben's Long-eared Bat *Nyctophilus corbeni* (Vulnerable)**: An assessment of impacts on Corben's Long-eared Bat was undertaken by Otway Ecology (Appendix 3 Att_1_Significant Impact Assessment for Native Vegetation Removal). The assessment concluded that the revised proposal is unlikely to have a significant impact on Corben's Long-eared Bat, providing that mitigation measures are adopted.

7. **Regent Parrot (eastern) *Polytelis anthopeplus monarchoides* (Vulnerable)**: The revised treatment area does not contain River Red Gum which are the preferred nesting trees for Eastern Regent Parrot. The nearest breeding area identified in the National Recovery Plan is located well outside of the 20 km feeding zone (from nest sites). The species is therefore unlikely to use the revised treatment area during the breeding season (August - December). The revised treatment area does not contain mallee woodlands which are the preferred foraging habitat for the species, however it does contain woodland habitat which can sometimes be utilised for foraging (PCT 58 and PCT 13). This habitat is limited to approximately 65 ha of degraded open woodland (vegetation integrity score <20). The large areas of woodland habitat retained on the property (including within the proposed set

aside area) and in the surrounding area are likely to provide more suitable foraging habitat. Areas of PCT 153 which makes up 95% of the revised treatment area, does not provide suitable habitat for the species. The revised proposal will not remove any mallee woodland or River Red Gum habitat which are preferred for browsing and nesting. The revised proposal will not isolate or fragment the remaining large areas of suitable foraging habitat on the property or mallee woodland habitat in the surrounding landscape. The revised proposal is unlikely to have a significant impact on eastern Regent Parrot.

4.1.4.7 Do you think your proposed action is a controlled action? *

No

4.1.4.9 Please elaborate why you do not think your proposed action is a controlled action.

*

A controlled action is any action that is likely to have a significant impact on a protected matter listed under Part 3 of the EPBC Act.

The assessment undertaken by James Golsworthy Consulting included an assessment against the relevant 'significant impact criteria' described in the *Matters of National Environmental Significance, Significant impact guidelines 1.1* (DoE 2013) for the seven species assessed as directly impacted by the proposed action (pages 29-51 Att_1_EPBC Significant Impact Assessment). This assessment concluded that the revised proposal is unlikely to have a significant impact on any of these threatened species.

The assessment also concluded that the three threatened ecological communities identified by the Protected Matters Search Tool are not impacted by the revised proposal (page 28 Att_1_EPBC Significant Impact Assessment).

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

The revised proposal targets predominately treeless and poor quality vegetation, avoiding higher quality woodland vegetation which provides higher habitat values for the identified threatened species.

This revised treatment area is dominated by low quality low chenopod shrubland (PCT 153 - vegetation integrity score <20), which makes up 95% of the revised treatment area. Woodland habitat within the revised treatment area consists of approximately 65 ha of degraded woodland habitat (vegetation integrity score <20) which contains a sparse density of potential habitat trees (approximately 110) that are isolated from the larger areas of woodland habitat retained on the property (including within the proposed set aside area). The revised proposal avoids 615 ha of higher quality woodland habitat that was originally proposed for removal, despite these areas containing some of the most suitable soils for irrigated horticulture. These woodland areas along with the larger areas of woodland habitat that will be retained on the rest of the property provide significantly higher habitat values and a much higher density of habitat trees for the identified threatened species.

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

The revised proposal includes 2,526 ha of set aside (offset) area (Att_2_Site Map). The majority of the set aside area contains Black Box Woodland (PCT 13 and PCT 15), particularly in the areas east of the High Darling Road. This includes a significant area PCT 13 (*Black Box Lignum Woodland of the inner floodplains in the semi-arid (warm) climate zone*) which was flooded in 2022. The site assessment undertaken by James Golsworthy Consulting indicates that the proposed set aside area contains a significantly higher number of potential habitat trees and hollows than the revised treatment area, which is predominantly treeless (pages 18-22 Att_1_EPBC Significant Impact Assessment).

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Species	Common name
No	No	<i>Actitis hypoleucos</i>	Common Sandpiper
Yes	No	<i>Apus pacificus</i>	Fork-tailed Swift
No	No	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper
No	No	<i>Calidris ferruginea</i>	Curlew Sandpiper
No	No	<i>Calidris melanotos</i>	Pectoral Sandpiper
No	No	<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe
No	No	<i>Motacilla flava</i>	Yellow Wagtail

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.5.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

A review of the habitat requirements of the identified migratory species confirmed that most species are associated with waterways and wetlands. This habitat is not present within the treatment area. The exception is Fork-tailed Swift (*Apus pacificus*) which is almost exclusively aerial across its range in Australia, which includes the entire Australian continent and Tasmania. This species may occasionally utilise the airspace above the treatment area for foraging.

4.1.5.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

*

No

4.1.5.6 Describe why you do not consider this to be a Significant Impact. *

Fork-tailed Swift is almost exclusively aerial over its Australian range and feed exclusively on flying insects. The treatment area is part of this species' range so there may be an impact as the clearing of the vegetation may reduce the local abundance of food resources for this species. However, the species' range in Australia includes the entire Australian continent and Tasmania so any impact from the proponent's actions will be very minor.

4.1.5.7 Do you think your proposed action is a controlled action? *

No

4.1.5.9 Please elaborate why you do not think your proposed action is a controlled action.

*

As outlined above in Section 4.1.5.2 impacts on migratory species are limited to direct impacts on potential foraging habitat of Fork-tailed Swift (*Apus pacificus*). The attached Draft Referral Guideline identifies modelled distribution across the entire Australian continent as well as Tasmania and offshore islands (page10 Att_5_Migratory Birds Draft Referral Guideline). Across its habitat range in Australia the species is exclusively aerial. Any habitat use within the project area is therefore likely to be limited to occasional aerial foraging. The proposed clearing may impact the number of flying insects available as a food resource, however the the treatment area may still be utilised by Fork-tailed Swift for foraging following the proposed clearing. Any impacts on Fork-tailed Swift are not likely to be significant due to the likely occasional use of the habitat for aerial foraging and the very small proportion of the total habitat impacted. With reference to the decision making process outlined in Figure 1 of the attached Draft Referral Guideline (page 6 Att_5_Migratory Birds Draft Referral Guideline), any impacts on Fork-tailed Swift are not likely to be significant as the proposed activity is not likely to destroy or isolate an area of important habitat or seriously disrupt the like cycle of an ecologically significant proportion of a population.

4.1.5.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

The revised proposal targets predominately treeless and poor quality vegetation, avoiding higher quality woodland vegetation.

This revised treatment area is dominated by low quality low chenopod shrubland (PCT 153 - vegetation integrity score <20), which makes up 95% of the revised treatment area. Woodland habitat within the revised treatment area consists of approximately 65 ha of degraded woodland habitat (vegetation integrity score <20) which contains a sparse density of trees (approximately 110) that are isolated from the larger areas of woodland habitat retained on the property (including within the proposed set aside area). The revised proposal avoids 615 ha of higher quality woodland habitat that was originally proposed for removal, despite these areas containing some of the most suitable soils for irrigated horticulture. These woodland areas along with the larger areas of woodland habitat that will be retained on the rest of the property are likely to provide significantly higher habitat values for flying insects that are used as a food resource by Fork-tailed Swift.

4.1.5.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

The revised proposal includes 2,526 ha of set aside (offset) area (Att_2_Site Map). The majority of the set aside area contains Black Box Woodland (PCT 13 and PCT 15), particularly in the areas east of the High Darling Road. This includes a significant area PCT 13 (*Black Box Lignum Woodland of the inner floodplains in the semi-arid (warm) climate zone*) which was flooded in 2022. The site assessment undertaken by James Golsworthy Consulting indicates that the proposed set aside area contains a significantly higher number of habitat trees and hollows than the revised treatment area, which is predominantly treeless (pages 18-22 Att_1_EPBC Significant Impact Assessment).

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

Not applicable. The proposed activities do not involve any nuclear materials.

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

Not applicable. The location of the proposed activity area is western NSW; there will not be any impacts on Commonwealth Marine Areas.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

Not applicable. The proposed activity area is located in western NSW. Consequently there will be no impacts on the Great Barrier Reef as a result of the proposed works.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

Not applicable. The proposed activity is not related to coal mining or coal seam gas.

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The proposed action will not impact Commonwealth Land.

4.1.11 Commonwealth Heritage Places Overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

*

The proposed action will not impact Commonwealth Heritage Places Overseas.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

None

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Threatened Species and Ecological Communities (S18)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

The original proposal involved the clearing of approximately 1,878 ha of native vegetation. This proposal maximised the use of suitable soil types on the property for the proposed land use (irrigated horticulture). However, a site assessment indicated that this proposal was likely to result in significant impacts on threatened species listed under the EPBC Act. In order to avoid and minimise these impacts the proposal was revised to maximise the use of suitable soils, while minimising the impacts on identified EPBC listed species by targeting the development to areas with lower habitat values and retaining areas with higher habitat values.

The clearing of native vegetation from the revised treatment area is necessary for the development to proceed. The identified land needs to be entirely cleared to allow for its conversion to irrigated horticulture. Due to the significant costs involved in installing the required water supply infrastructure, the proponent is aiming to maximise the area available for development. Any further reduction in the area proposed for clearing and conversion to irrigated horticulture will reduce the economic viability of the proposal. Large contiguous areas are preferred for irrigation development as far as possible and there is no scope to retain further areas of native vegetation within the proposed treatment area for the following reasons:

1. **Layout of the orchard blocks.** The grapevines are grown in blocks, each consisting of a number of uniform rows. This allows them to be managed and operated efficiently. All operations from spraying, harvesting, pruning and irrigation depend on the systematic and regular layout of the rows. At each end of the rows a sufficient large cleared headland space is required to allow for the safe and efficient operation maneuvering of farm plant and machinery.
2. **Irrigation requirements.** The site will be irrigated using a reticulated system that is supplied with irrigation water from a connection to the proponent's existing pump site. In order to provide each vine with the water and nutrients it requires, the irrigation system needs to be arranged in a grid system, with water provided to the root mass at the base of each plant. The most efficient way of achieving this depends on clearing as many large contiguous areas as possible. This allows for the construction of a simple squared grid system and avoids the complexities inherent with designs that are forced to work around remnant patches of vegetation.
3. **Optimal development of proponent's property.** The area identified for clearing abuts the existing areas that have been developed. The clearing of the area of land referred to in this application will permit the development of the parts of the proponent's property that has been assessed as having the suitable features for this type of horticultural development. These include the following features:
 - *Close to transport route.* The area already developed and the area proposed for development is located close to the Low Darling Road. This makes it a convenient location for the receipt of farm supplies and for the loading and transportation of farm produce.
 - *Proximity to water supply system.* The developed area is the closest parcel of land located on the eastern side of the Wentworth-Pooncarie Road to the Darling River. The Darling River is the sole source of irrigation water for the horticultural enterprise. Locating the development on this part of the property means that the costs associated with the installation and ongoing operation of the irrigation reticulation system are minimised.
 - *Utilise optimal soil type.* The area proposed for the development was identified as having soil types that are suitable for the production of wine grapes.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att_1_EPBC Significant Impact Assessment.pdf Biodiversity assessment of the proposed native vegetation removal.	09/10/2025	No	High
#2.	Document	Att_2_Site Map.pdf Site map indicating proposed treatment (clearing), offset and retention areas as well as existing land uses on property	25/09/2025	No	High

1.2.6 Commonwealth or state legislation, planning frameworks or policy documents that are relevant to the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att_1_EPBC Significant Impact Assessment.pdf Biodiversity assessment of the proposed native vegetation removal.	09/10/2025	No	High

1.3.2.17 (Person proposing to take the action) Proposer's history of responsible environmental management

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att_2_Site Map.pdf Site map indicating proposed treatment (clearing), offset and retention areas as well as existing land uses on property	24/09/2025	No	High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att_1_EPBC Significant Impact Assessment.pdf Biodiversity assessment of the proposed native vegetation removal.	09/10/2025	No	High
#2.	Document	Att_2_Site Map.pdf Site map indicating proposed treatment (clearing), offset and retention areas as well as existing land uses on property	24/09/2025	No	High

3.1.3 Natural features, important or unique values that applies to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att_2_Site Map.pdf Site map indicating proposed treatment (clearing), offset and retention areas as well as existing land uses on property	24/09/2025	No	High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att_1_EPBC Significant Impact Assessment.pdf Biodiversity assessment of the proposed native vegetation removal.	09/10/2025	No	High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att_1_EPBC Significant Impact Assessment.pdf Biodiversity assessment of the proposed native vegetation removal.	09/10/2025	No	High

3.3.2 Indigenous heritage values that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att_3_Aboriginal Cultural Heritage Sites.pdf Map indicating the location of identified Aboriginal Cultural Heritage sites on the property	25/09/2025	Yes	High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att_2_Site Map.pdf Site map indicating proposed treatment (clearing), offset and retention areas as well as existing land uses on property	24/09/2025	No	High
#2.	Document	Att_4_Groundwater Impact Assessment.pdf Groundwater Impact Assessment for irrigation development	19/02/2024	No	High

4.1.3.3 (Ramsar Wetland) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att_4_Groundwater Impact Assessment.pdf Groundwater Impact Assessment for irrigation development	19/02/2024	No	High

4.1.4.2 (Threatened Species and Ecological Communities) Why your action has a direct and/or indirect impact on the identified protected matters

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Type	Name	Date	Sensitivity	Confidence
#1.	Document Att_1_EPBC Significant Impact Assessment.pdf Biodiversity assessment of the proposed native vegetation removal.	09/10/2025	No	High

4.1.4.6 (Threatened Species and Ecological Communities) Why you do not consider the direct and/or indirect impact to be a Significant Impact

Type	Name	Date	Sensitivity	Confidence
#1.	Document Att_1_EPBC Significant Impact Assessment.pdf Biodiversity assessment of the proposed native vegetation removal.	09/10/2025	No	High

4.1.4.9 (Threatened Species and Ecological Communities) Why you do not think your proposed action is a controlled action

Type	Name	Date	Sensitivity	Confidence
#1.	Document Att_1_EPBC Significant Impact Assessment.pdf Biodiversity assessment of the proposed native vegetation removal.	09/10/2025	No	High

4.1.4.11 (Threatened Species and Ecological Communities) Proposed offsets relevant to avoidance or mitigation measures

Type	Name	Date	Sensitivity	Confidence
#1.	Document Att_1_EPBC Significant Impact Assessment.pdf Biodiversity assessment of the proposed native vegetation removal.	09/10/2025	No	High
#2.	Document Att_2_Site Map.pdf Site map indicating proposed treatment (clearing), offset and retention areas as well as existing land uses on property	24/09/2025	No	High

4.1.5.9 (Migratory Species) Why you do not think your proposed action is a controlled action

Type	Name	Date	Sensitivity	Confidence
#1.	Document Att_5_Migratory Birds Draft Referral Guideline.pdf Draft referral guideline for 14 birds listed as migratory species under the EPBC Act	01/09/2015	No	High

4.1.5.11 (Migratory Species) Proposed offsets relevant to avoidance or mitigation measures

Type	Name	Date	Sensitivity	Confidence
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#1.	Document	Att_1_EPBC Significant Impact Assessment.pdf Biodiversity assessment of the proposed native vegetation removal.	09/10/2025	No	High
#2.	Document	Att_2_Site Map.pdf Site map indicating proposed treatment (clearing), offset and retention areas as well as existing land uses on property	24/09/2025	No	High

5.2 Declarations

Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

ABN/ACN	51124624148
Organisation name	James Golsworthy Consulting Pty Ltd
Organisation address	3500 VIC
Representative's name	Troy Muster
Representative's job title	Senior Environmental Consultant
Phone	0350228411
Email	troy@jgconsult.com.au
Address	140 Pine Avenue, Mildura VIC 3500

Check this box to indicate you have read the referral form. *

Check this box to confirm these are the correct identification details. *

By checking this box, I, **Troy Muster of James Golsworthy Consulting Pty Ltd**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	644961704
Organisation name	Junction Vineyards Pty Ltd
Organisation address	28 Jindalee Road Coomealla NSW 2717
Representative's name	Vince Littore

Representative's job title	Director
Phone	0419311030
Email	vince@jrwt.com.au
Address	28 Jindalee Road Coomealla 2717

Check this box to indicate you have read the referral form. *

Check this box to confirm these are the correct identification details. *

I, **Vince Littore of Junction Vineyards Pty Ltd**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

Check this box to indicate you have read the referral form. *

Check this box to confirm these are the correct identification details. *

I, **Vince Littore of Junction Vineyards Pty Ltd**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.