Bellevue Estate Irrigation Expansion Project

Application Number: **02513** Commencement Date: **19/07/2024** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Bellevue Estate Irrigation Expansion Project

1.1.2 Project industry type *

Agriculture and Forestry

1.1.3 Project industry sub-type

Agriculture

1.1.4 Estimated start date *

01/11/2024

1.1.4 Estimated end date *

01/09/2025

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 113.2 hectares of native vegetation on Bellevue Estate, a property located in southwest NSW. The vegetation clearing is the initial step in establishing irrigated citrus plantings. The vegetation proposed for clearing has been identified as potentially containing habitat for species and ecological communities listed under the EPBC Act.

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

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 citrus trees. Drip line irrigation will then 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 orchards.

Irrigation water will be supplied from the proponent's existing irrigation pump station located on the eastern bank of the Darling River west of the site. There are existing water supply mains from this pump station which supply water to adjoining areas of irrigated horticulture on the property. The irrigation system for the proposed development will be connected to this existing system.

As adjoining areas have previously been developed for irrigated horticulture, all of the required shedding, access roads and tracks required to operate and manage the additional area have already been established and constructed.

The area of land proposed for clearing was identified as having suitable soil types and topographical characteristics for the establishment of irrigated citrus. Due to its intended use, none of the vegetation within the identified area of land will be retained. The proposal is only viable if the land can be cleared as a single unit, with the resulting horticultural block developed, and managed, as a single unit.

A plan of the irrigation layout, existing and proposed, is attached (See IrrigationDesign_A3.pdf). This plan was prepared in 2022 and will be upgraded to incorporate all of the proposed clearing area as part of the approvals process under the *Water Management Act 2000*.

The proponent has identified an additional area of land on a separate land parcel that is proposed to be retained as an offset area in order to mitigate the biodiversity losses that will result from the clearing of the land. The proposed offset site has an area of 738.5 hectares and is located approximately 19.5 km to the east of the area proposed to be cleared.

Please refer to Appendix 1 of 241108 V2 Pinion Advisory Report for further information on proposed clearing 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?

Yes

1.2.3 Is the proposed action the first stage of a staged development (or a larger project)?

No

1.2.4 Related referral(s)

—

1.2.5 Provide information about the staged development (or relevant larger project).

The proposed project is connected to the a larger project that has resulted in the conversion of a portion of a former grazing property into use for irrigated horticulture. The property was originally established in the early twentieth century when 14,000 hectares was separated from a larger pastoral lease holding. Over the last 25 years, approximately 337 hectares of the property (known as Bellevue Estate) has been progressively converted to irrigated horticulture. The irrigation water is sourced from the Darling River which is located on a section of the western boundary of the property.

The proposal to clear the additional land represents the final stage of the proponent's plans for the expansion of irrigated horticulture on Bellevue Estate. The development will utilise the existing irrigation infrastructure and facilities such as the road and tracks, sheds, and outbuildings.

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

The proponent lodged an application to Local Land Services (LLS) under the Equity division of the Land Management (Native Vegetation) Code 2018 (NSW). On 7 May 2024 LLS partially approved this application via the granting of a Mandatory Code Compliant Certificate for the clearing of 497.32 hectares.

During its assessment of the proponent's application, the 113.2 ha area which is subject to this referral was identified by LLS as having the potential to have a significant impact on threatened species and ecological communities listed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), in particular the endangered Mallee Bird Community of the Murray Darling Depression Bioregion. The area of land covered by the Mandatory Code Compliant Certificate does not include the land that is subject to this referral.

Approvals to amend an existing Water Use Approval to incorporate the additional irrigation area will be required under the Water Management Act 2000 (NSW).

The parcel of land which contains the area proposed for clearing is Crown Land occupied under a perpetual lease (Western Lands Lease). Approval will be required under the Crown Land Management Act 2016 (NSW) to change the purpose of the lease to include the additional irrigation area.

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 an isolated part of south western NSW. There are no close neighbouring residences and the proposed activity area cannot be observed by passersby on the nearby road.

The proponent has discussed the proposal with the owners or occupiers of the neighbouring landholdings and they have expressed support. (source: pers. communication with farm manager).

1.3.1 Identity: Referring party

Privacy Notice:

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

The Department of Climate Change, Energy, the Environment and Water (the department) collects your personal information (as defined by the Privacy Act 1988) through this platform for the purposes of enabling the department to consider your submission and contact you in relation to your submission. If you fail to provide some or all of the personal information requested on this platform (name and email address), the department will be unable to contact you to seek further information (if required) and subsequently may impact the consideration given to your submission.

Personal information may be disclosed to other Australian government agencies, persons or organisations where necessary for the above purposes, provided the disclosure is consistent with relevant laws, in particular the Privacy Act 1988 (Privacy Act). Your personal information will be used and stored in accordance with the Australian Privacy Principles.

See our Privacy Policy to learn more about accessing or correcting personal information or making a complaint.

Alternatively, email us at privacy@awe.gov.au.

☑ **Confirm that you have read and understand this Privacy Notice ***

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	140 Pine Avenue Mildura VIC 3500

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	35001886844
Organisation name	DECENTRALISED DEMOUNTABLES PTY LTD
Organisation address	PO Box 519 Gol Gol NSW 2738

Person proposing to take the action details

Name	Nadia Wyatt
Job title	Administration Manager
Phone	0438662377
Email	nadia@demountables.com.au
Address	Bellevue Estate, Pooncarie Road, via Wentworth NSW 2648

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. *

Robert Wilson (Director - Decentralised Demountables) has been involved in primary production for most of his life. He has owned grazing and irrigation properties in western NSW and is committed to sustainable agricultural practices, having a strong track record of responsible environmental management.

The Bellevue Estate vineyard is certified (since 2022) under the Sustainable Winegrowing Australia program. This is Australia's national program for grape growers to demonstrate and continuously improve their sustainability in the vineyard through the environmental, social and economic aspects of their business.

Decentralised Demountables has not been subject to any proceedings under under Commonwealth, State and Territory law for the protection of the environment or the conservation and sustainable use of natural resources.

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

Decentralised Demountables does not have a formal environmental policy. However, as outlined above the company's senior management have been involved in primary production for many years.

The Bellevue Estate vineyard is certified under the Sustainable Winegrowing Australia program. This requires attendance at approved training, an independent audit against approved Australian Wine Industry Standards of Sustainable Practice, and annual reporting.

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	35001886844
Organisation name	DECENTRALISED DEMOUNTABLES PTY LTD
Organisation address	PO Box 519 Gol Gol NSW 2738

Proposed designated proponent details

Name	Nadia Wyatt
Job title	Administration Manager
Phone	0438662377

Email	nadia@demountables.com.au
Address	Bellevue Estate, Pooncarie Road, via Wentworth NSW 2648

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	140 Pine Avenue Mildura VIC 3500
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	35001886844
Organisation name	DECENTRALISED DEMOUNTABLES PTY LTD
Organisation address	PO Box 519 Gol Gol NSW 2738
Representative's name	Nadia Wyatt
Representative's job title	Administration Manager
Phone	0438662377
Email	nadia@demountables.com.au

Address	Bellevue Estate, Pooncarie Road, via Wentworth NSW 2648

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

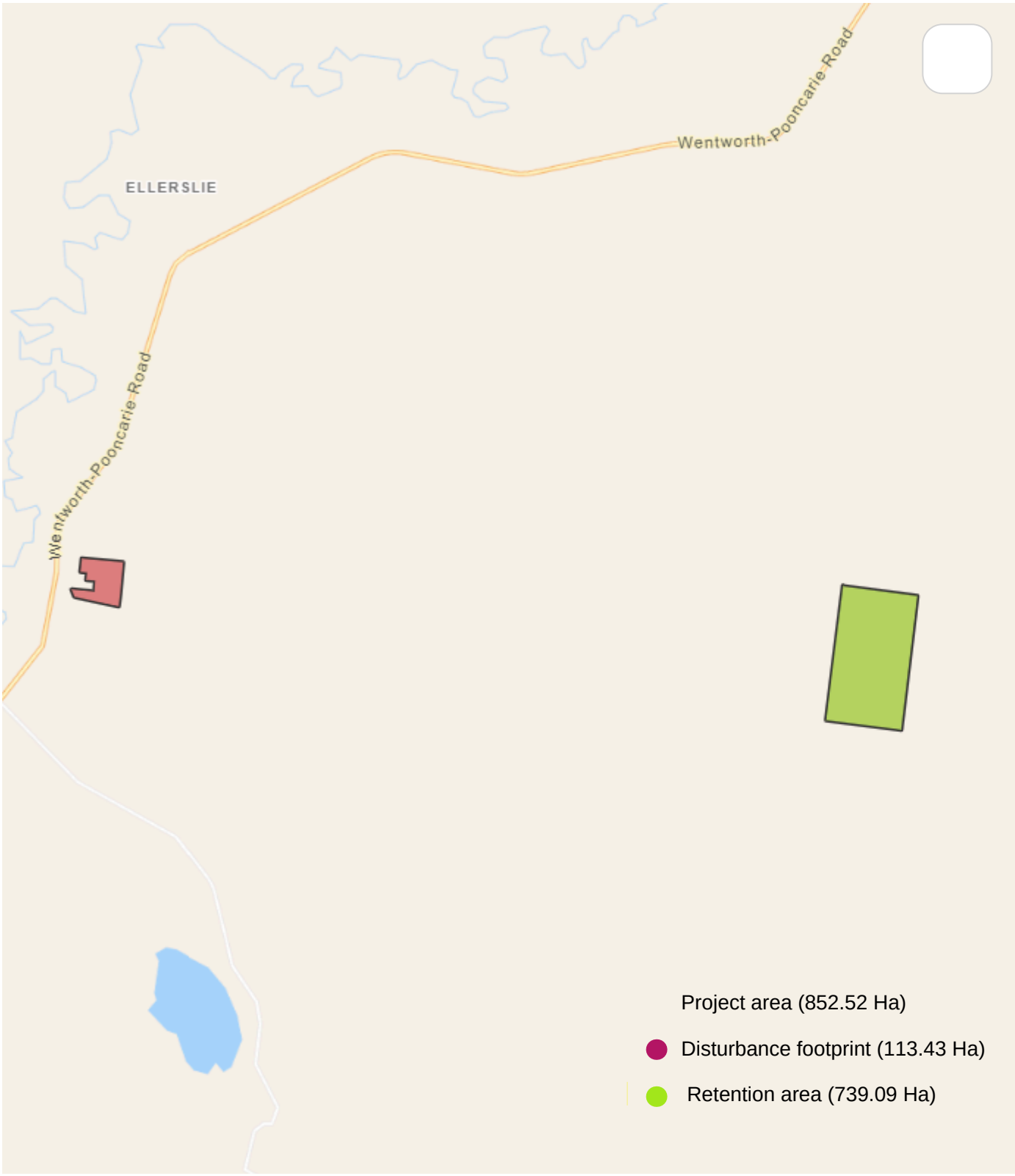
1.4 Payment details: Payment allocation

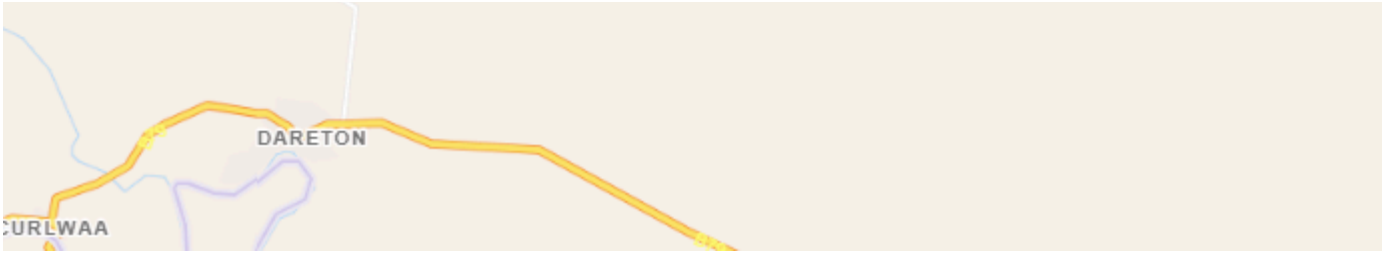
1.4.11 Who would you like to allocate as the entity responsible for payment? *

Person proposing to take the action

2. Location

2.1 Project footprint





Maptaskr © 2024 -33.801245, 142.442690

Powered By Esri - Sources: Esri, TomTom, Garmin, F…

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

2451 Pooncarie 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 consists of three parcels of Crown Land subject to perpetual leases (Western Lands Lease). Lot 1 DP1181118 (Western Lands Lease 16332), Lot 2 DP1181118 (Western Lands Lease 1444) and Lot 21 DP 760341 (Western Lands Lease 1445). The proposed action is located on Western Land Leases 16332 and 1444 and the proposed offset area is located on Western Lands Lease 1445.

Please refer to Appendix 1 of 241108 V2 Pinion Biodiversity Report for details on the location of Western Lands Leases within the property.

3. Existing environment

3.1 Physical description

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

Bellevue Estate is located in the western division of NSW in the far southwest corner of NSW, and is approximately 22 kilometres north of the township of Wentworth. It has frontage on both sides of the Pooncarie-Wentworth Road, with the major part of the landholding being located on the eastern side of this road.

The land type is classified as arid rangeland and the land in this region has had a long history of use for pastoral agriculture. The land that comprises Bellevue has been used for dryland stock grazing since at least the 1850s. This constant grazing pressure from domestic livestock has led to changes in the biota present across the proposed clearing site and the surrounding area. The composition of the groundcover flora has been altered with many areas now dominated by introduced weed species; the most abundant of these being wiry noon-flower (*Mesembryanthemum granulicaule*). The overstorey consists mainly of mature mallee species (*Eucalyptus oleosa* and *E. socialis*) . There is little evidence of ongoing recruitment among the various overstorey species, mainly due to the persistent grazing pressure.

The part of the property that includes the parcel of land subject to this referral has been destocked and is no longer managed as a grazing property. However, grazing pressure on native flora continues at a high level mainly due to the abundance of feral goats in the region. Other non-native pest animals (rabbits) as well as native macropod species maintain the grazing pressure on the native flora and contribute to its ability to recover to its original (pre-European settlement) level of composition and abundance.

A large fenced off area to the east of the activity area is leased to a neighbouring landowner who uses it to graze sheep.

Historic timber harvesting of pine (*Callitris gracilis*) and Belah (*Casuarina pauper*) species has resulted in their near eradication from many parts of the property, including the the area proposed for clearing. These species do not exhibit any evidence of local recruitment across these cleared areas, no doubt due to the ongoing grazing pressure.

The Darling River is located 1.4 kilometres to the west of the proposed clearing site. The proximal location of the Darling River has afforded the opportunity to redevelop suitable parts of the property for use as irrigated horticulture. The Darling River at this point is nearing its confluence with the Murray River and the water level of the river level is artificially maintained by the influence of the the Wentworth Weir (Lock 10) on the Murray River. This makes the lower Darling River a valuable irrigation resource due to the static water level of the weir pool.

Parts of Bellevue have already been converted to irrigated horticulture. Previous owners of the property progressively developed a selected part of the property for the production of winegrapes and citrus. This included the construction and installation of an irrigation system that sources irrigation water from the Darling River via a pump station located on its eastern bank. Access roads and farm tracks, together with sheds and other outbuildings have also been constructed and erected over the past two decades of redevelopment. Currently, approximately 337 hectares of the property is in production with plantings of winegrapes and citrus crops.

The proponent is planning to develop the remaining suitable land on the property. Approvals are currently in place to develop a further 479 hectares. If the required approvals to develop the remaining 113.2 hectares are obtained, a total of approximately 930 hectares will eventually be under horticultural production. The

conversion of grazing land to irrigated horticulture requires that the land be entirely cleared of its native vegetation to facilitate the establishment of the permanent crops (citrus and grapevines).

The clearance area has not undergone disturbance from bushfire or flooding in recent times. There is some evidence of a bushfire event (source: 241108 V2 Pinion Biodiversity Report, Section 1.5, p.3) in the area that is proposed as the offset area but there are no known official records of this event, and there has been almost full recovery from any damage they may have resulted.

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 land has been used for agricultural purposes since European settlement of the area in 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. Beginning in the early 2000s, a portion of the property was converted to irrigated horticulture. Over this time approximately 337 hectares has been progressively developed with winegrape and citrus crops being brought into production and grazing being phased out.

The proponent purchased the property in 2020 and has plans to develop further areas, this will bring the total of area developed for horticultural production to approximately 930 hectares.

The surrounding land consists of mainly native vegetation which is predominately used for rangeland grazing. Other land uses include irrigated horticulture, which is the most significant land use in terms of economic value in the local area, and irrigated pasture. Significant areas of private conservation reserves are also present in the surrounding landscape.

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. The river constitutes the western boundary of the portion of the property located on the western side of the Wentworth-Pooncarie Road. The presence of the Darling River is the driver for the proponent's plans to clear and redevelop a portion of the property for horticultural production, as the 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. The river also has enormous cultural importance to the Baakindji Aboriginal people.

Away from the riparian corridor and floodplain of the Darling River, the landform quickly gives way to flat 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, with scattered private conservation areas also present.

Please refer to site description in the attached report for further information (241108 V2 Pinion Biodiversity Report, Section 4, p.16-20).

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 project area is located on a gently undulating sandplain landform. Elevation within the proposed clearance area area ranges from 38m AHD in the south-west to 54 m AHD in the north-east. Within the proposed offset area elevation ranges from 54 m AHD in the north-west to 76 m AHD in the south-west.

Please refer to attached report (241108 V2 Pinion Biodiversity Report, Section 4.1, p.16) for further information on geology and landforms within the project area.

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 the site was conducted by Pinion Advisory in the first half of 2024.

The assessment revealed that the 851.7 hectare project area contains three Plant Community Types (PCTs). These are:

- PCT 58 Black Oak - Western Rosewood open woodland on deep sandy loams mainly in the Murray Darling Depression Bioregion
- PCT 170 Chenopod sandplain mallee woodland/shrubland of the arid and semi-arid (warm) zones
- PCT 171 Spinifex linear dune mallee mainly of the Murray Darling Depression Bioregion

The proposed clearance area consists of 113.2 hectares of native vegetation, made up of 61.2 hectares of PCT 58 and 52 hectares of PCT 170.

Plant Community Type (PCT) 170 is likely to provide suitable habitat for the EPBC Act listed ecological community - Mallee Bird Community of the Murray Darling Depression Bioregion. This ecological community is listed as endangered under the EPBC Act.

The area that the proponent intends to clear contains a good cover of native overstory trees and a low density of small native shrubs. The groundcover species are dominated by exotic (non-native) species. This reflects the site's use, over many decades, for the grazing of stock animals.

The proposed offset area contains 135.7 ha of PCT 170, 186.5 ha of PCT 171 and 413.7 ha of PCT 58. This area is less disturbed than the proposed clearance area, contains many large trees with hollows, and has a high diversity of native flora species and low exotic (non-native) weed cover.

Please refer to the attached report for further information on native vegetation values (241108 V2 Pinion Biodiversity Report, Section 4, p. 16-25) and habitat values (241108 V2 Pinion Biodiversity Report, Section 5, p. 26-32)

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

The project area has been used for stock grazing for many decades. The impacts of stock grazing are more significant in the clearance area due to it's proximity to a water source (Darling River). This has resulted in a native vegetation species assemblage within the clearance area that consists mainly of mature native trees and a low density of native shrubs with the groundcover species consisting of high percentage of exotic species. While the proposed offset area has a higher diversity of native flora species and lower exotic (non-native) weed cover.

A site assessment undertaken by Pinion Advisory in April and May 2024 included an assessment using the NSW Biodiversity Assessment Method (BAM).

The site assessment confirmed that the clearance area contains the following two PCTs:

- PCT 58 Black Oak - Western Rosewood open woodland on deep sandy loams mainly in the Murray Darling Depression Bioregion (61.2 ha)
- PCT 170 Chenopod sandplain mallee woodland/shrubland (52 ha)

The Pinion Advisory assessment recorded a total of 20 native flora species and seven exotic weed species within PCT 170 (241108 V2 Pinion Biodiversity Report, Section 4.6, Table 9, p. 19), dominated by overstorey species consisting of mature mallee trees (*Eucalyptus oleosa, and E. socialis*). The groundcover was dominated by the exotic species Wiry Noon-flower (*Mesembryanthemum granulicaule).*

The extent the clearance area is indicated in Appendix 2 of the attached Pinion Advisory report (241108 V2 Pinion Biodiversity Report, Appendix 2)

PCT 170 within the project area contained coarse to fine textured soils (sandy loam to clay loam) with limestone often present (241108 V2 Pinion Biodiversity Report, Section 4.1, p. 16).

The site assessment confirmed that the proposed offset area contained the following three PCTs:

- PCT 58 Black Oak - Western Rosewood open woodland on deep sandy loams mainly in the Murray Darling Depression Bioregion (413.7 ha)
- PCT 170 Chenopod sandplain mallee woodland/shrubland of the arid and semi-arid (warm) zones (135.7 ha)
- PCT 171 Spinifex linear dune mallee mainly of the Murray Darling Depression Bioregion (186.5 ha)

The Pinion Advisory Assessment recorded a total of 41 native flora species with PCT 170 and PCT 171 (241108 V2 Pinion Biodiversity Report, Section 4.6, Table 10, p. 19-20). The offset area contained a higher diversity of native species, including native shrubs, and a much lower cover of exotic species.

PCT 170 in the offset area was located on sandplains with heavier textures soils, while PCT 171 was located on east-west dunes that comprised of either shallow sand over clay subsoil, or deeper sand (241108 V2 Pinion Biodiversity Report, Section 4.1, p. 16).

The extent the offset area and the PCTs within the offset area is indicated in Appendix 3 of the attached Pinion Advisory report (241108 V2 Pinion Biodiversity Report, Appendix 3)

Further details of the vegetation within the project area is described in the attached Pinion Advisory report (241108 V2 Pinion Biodiversity Report, Section 4, p. 16-25).

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.

As part of its assessment of the application to remove native vegetation under the Land Management (Native Vegetation) Code 2018, LLS conducted a search using the NSW Aboriginal Heritage Information Management System (AHIMS) for the proponent's property. The search area includes the project area. The AHIMS search is attached (LLS AHIMS).

The search revealed that there are a number of AHIMS sites located on the proponent's property. None of these sites occur within the project area and they will not be harmed or impacted as a result of the proposed activities at the site.

The search results contained in the LLS AHIMS search are drawn from publicly available data and do not contain any culturally sensitive information.

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 (25km 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 clearance site is situated approximately 1.4 km east of the Darling River (at the nearest point) and is elevated above the riparian floodplain. The topography of the clearance area consists mainly of low aeolian dunes and generally slopes gently upwards from west to east and slopes gently downward from north to south. Overall, the topography is relatively flat with elevation ranging from approximately 38 m AHD at the lowest point to around 54 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 project area. The irrigation water for the horticultural development will be sourced from the Darling River via a connection to the proponent's existing irrigation network.

The proponent commissioned a groundwater impact assessment for the previous horticultural development which is located immediately adjacent to the clearance area that is the subject of this referral. The assessment 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.

Eco Logical Australia Pty Ltd completed the groundwater impact assessment in 2022, and the results were compiled in the attached report *Bellevue Station Groundwater Impact Assessment.*

The results of the assessment concluded that despite a 16-year history (at the time the assessment was conducted) of irrigation development at the site, there was no evidence that there had been an adverse impact on groundwater, nor any resulting adverse impact on the salinity levels of the Darling River. The depth to groundwater displayed a declining trend and the groundwater levels varied widely across the site, indicating that there is no relationship between the irrigation occurring at the surface level and the water table located beneath.. (*Bellevue Station Groundwater Impact Assessment,* Eco Logical, 2022; p.2).

The other parameter that was assessed was the risk of increased salinity in the groundwater as a result of the irrigation activity occurring across the site. The assessment found that there was no evidence of widespread increases in the salinity levels of the groundwater underneath the development, and that the trend was a slight decline in groundwater salinity. (*Bellevue Station Groundwater Impact Assessment,* Eco Logical, 2022; p.5).

There was no evidence that there was any resulting increase in the salinity levels of the Darling River, as a result of impacts on groundwater resulting from the irrigation development.

Based on the results of the 2022 groundwater impact assessment, it is highly unlikely that the 113.2 ha of additional irrigation proposed will result in any significant impacts to any Matters of National Environmental Significance.

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.

—

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 kilometres to the east of the clearing site. The proposed works 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 kilometres east
- City of Broken Hill - 225 kilometres north.

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
No	No	Banrock Station Wetland Complex
No	No	Riverland
No	No	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 project 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.

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	Amytornis striatus howei	Murray Mallee Striated Grasswren, Striated Grasswren (sandplain)
Yes	No	Aphelocephala leucopsis	Southern Whiteface
No	No	Bidyanus bidyanus	Silver Perch, Bidyan
No	No	Botaurus poiciloptilus	Australasian Bittern
No	No	Brachyscome papillosa	Mossgiel Daisy
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
Yes	No	Falco hypoleucos	Grey Falcon
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
Yes	No	Grantiella picta	Painted Honeyeater
No	No	Hemiaspis damelii	Grey Snake
No	No	Lathamus discolor	Swift Parrot
No	No	Leipoa ocellata	Malleefowl
Yes	No	Lepidium monoplocoides	Winged Pepper-cress
No	No	Litoria raniformis	Southern Bell Frog,, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog
Yes	No	Lophochroa leadbeateri leadbeateri	Major Mitchell's Cockatoo (eastern), Eastern Major Mitchell's Cockatoo
No	No	Macquaria australasica	Macquarie Perch
Yes	No	Manorina melanotis	Black-eared Miner
Yes	No	Melanodryas cucullata cucullata	South-eastern Hooded Robin, Hooded Robin (south-eastern)
Yes	No	Neophema chrysostoma	Blue-winged Parrot
Yes	No	Nyctophilus corbeni	Corben's Long-eared Bat, South-eastern Long-eared Bat
No	No	Pedionomus torquatus	Plains-wanderer
No	No	Phascolarctos cinereus (combined populations of Qld, NSW and the	Koala (combined populations of Queensland, New South Wales and the

Direct impact	Indirect impact	Species	Common name
		ACT)	Australian Capital Territory)
Yes	No	Polytelis anthopeplus monarchoides	Regent Parrot (eastern)
No	No	Rostratula australis	Australian Painted Snipe
No	No	Solanum karsense	Menindee Nightshade
No	No	Stagonopleura guttata	Diamond Firetail
No	No	Swainsona murrayana	Slender Darling-pea, Slender Swainson, Murray Swainson-pea
No	No	Swainsona pyrophila	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
Yes	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 following is a summary of the likely impacts from the proposed action. The suitability of the habitat that will be cleared in the project area is considered for each of the listed species. Direct impacts are considered likely for species assessed as having suitable habitat within the project area. An analysis of habitat suitability is included within Section 5 of the attached report from Pinion Advisory and the findings of this analysis are included below.

1. Black-eared Miner (*Manorina melanotis*): **Direct impact**. This species prefers old growth mallee with an understorey of chenopods or spinifex. The clearance area constitutes suitable habitat and is located within this species' range (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
2. Hooded Robin (*Melanodryas cucullata cucullata*): **Direct impact**. The clearance site contains suitable habitat and resources and is located within the species' range (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).

3. Painted Honeyeater (*Grantiella picta*): **Direct impact**. The clearance area contains suitable habitat and resources and is located within the species' range (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
4. Blue-winged Parrot (*Neophema chrysostoma*): **Direct impact**. The clearance area contains suitable habitat and food resources (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
5. Regent Parrot (*Polytelis anthopeplus monarchoides*): **Direct impact**. The clearance area contains suitable habitat and resources (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
6. Grey Falcon (*Falco hypoleucos*): **Direct impact**. The clearance area contains suitable habitat and resources and is located within the species' range (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
7. Southern Whiteface (*Aphelocephala leucopsis*): **Direct impact**. The clearance area contains suitable habitat and the species is known to occur throughout the region (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
8. Pink Cockatoo (*Lophochroa leadbeateri leadbeateri)*: **Direct impact**. The clearance area contains the overstorey species and other resources required by *L. leadbeateri* (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
9. Plains-wanderer (*Pedionomus torquatus*): No impact. The vegetation community at the clearance site is not this species' preferred habitat (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
10. Striated Grass wren (*Amytornis striatus howei*): No impact. The clearance area does not contain the species' preferred habitat (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
11. Australian Painted Snipe (*Rostratula australis*): No impact. This species prefers wetlands, swamps and marshes, none of which are located within the clearance area (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
12. Curlew Sandpiper (*Calidris ferruginea*): No impact. The clearance area habitat is unsuitable; it does not contain the required mudflats, standing shallow water or salt marshes environments that are required by this species. (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
13. Latham's Snipe (*Gallinago hardwickii*): No impact. This species requires mudflats and shallow water for access to food resources. This type of habitat is not present within the clearance area (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
14. Diamond firetail (*Stagonopleura guttata*): No impact. This species requires dense shrubs and grass cover neither of which are present at the clearance site (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
15. Sharp-tailed Sandpiper (*Calidris acuminata*): No impact. This species does not breed in Australia and it requires wetlands for feeding. The clearance area is not located within the species' Australian range (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
16. Swift Parrot (*Lathamus discolour*): No impact. The clearance area is not suitable habitat for this species. (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
17. Mallee Fowl (*Leipoa ocellata*): No impact. This species prefers large areas of dense mallee. The clearance area is not suitable habitat. No nest mounds were observed during the site assessment (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
18. Australasian bittern (*Botaurus poiciloptilus*): No impact. This species requires swamps, marshes or wetlands. The habitat of the clearance does not contain any of these habitat features (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
19. Koala (*Phascolarctos cinereus*): No impact. This species does not occur in the far west of NSW (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
20. Corben's Long-eared Bat (*Nyctophilus corbeni*): **Direct impact**. The clearance area contains suitable habitat and resources and the species is known to occur throughout the region (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
21. Grey Snake (*Hemiaspis damelii*): No impact. The habitat of the clearance area is not suitable for this species. *H. damelii* prefers the margins of ephemeral wetlands within *E. camuldulensis* and *E. largiflorens* vegetation communities and *Duma florulenta* swamps, none of which are located within

the clearance area (Conservation Advice for *Hemiaspis damelii* (grey snake), DCCEEW, 2022; pp 5-7).

22. Growling grass frog (*Litoria raniformis*): No impact. The clearance area does not contain suitable habitat for this species (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14)
23. Macquarie Perch (*Macquaria australasica*): No impact. The development is located approximately 1.4 kilometres east of the Darling River and the works will not have any impact on the habitats within the riparian corridor. The species is not known to occur in the Lower Darling system (*National Recovery Plan for the Macquarie Perch* (Macquaria australasica); Dept. of Environment and Energy, 2018; Section 5, Figure 3).
24. Silver Perch (*Bidyanus bidyanus*): No impact. The development is approximately 1.4 kilometres east of the Darling River and will not have any impact any impact on this species' habitat.
25. Winged Pepper-cress. (*Lepidium monoplocoides*): **Direct impact**. The clearance area contains habitat that is suitable for this species (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14)
26. Mossgiel Daisy (*Brachyscome papillosa*): No impact. This species was not observed during the site assessment. The clearance area is not suitable for this species (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
27. Menindee Nightshade (*Solanum karsense*): No impact. This species requires floodplains with swamps and this type of habitat is not located within the clearance area. The species was not observed during the site assessment (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
28. Slender Darling Pea. (*Swainsona murrayana*): No impact. This species was not observed in the clearance area during the site assessment and the clearance area is not its preferred habitat. This species requires grassland, herbland, and open Black-box woodland, often in depressions with heavy grey or brown clay, loam, or red cracking clays. (Approved Conservation Advice for *Swainsona murrayana* (Slender Darling Pea), DCCEEW, pp.1-2)
29. Yellow Swainson-pea (*Swainsona pyrophila*): No impact. This species requires dunes or sand plain mallee woodlands. The clearance area soil type in not suitable for this species and it was not observed during site assessment (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
30. Buloke Woodlands of the Riverina and Murray Darling Depression Bioregions: No impact. This ecological community is not present anywhere on the proponent's property (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
31. Coolibah–Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt Bioregions: No impact. The assessment completed by Pinion Advisory did not find any evidence that this community exists anywhere within the clearance area (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).
32. Mallee Bird Community of the Murray Darling Depression Bioregion: **Direct impact**. Based on the analysis undertaken by Pinion Advisory, this community is present within the project area. The proposal will lead to the loss of habitat within this community. (241108 V2 Pinion Biodiversity Report, Section 5.2, Table 14).

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

Yes

4.1.4.5 Describe why you consider this to be a Significant Impact. *

Mallee Bird Community of the Murray Darling Depression Bioregion (MBC)

The proposed action includes the clearing of 113.2 hectares of native vegetation which contains 52 hectares of mallee vegetation (PCT 170). Based on the findings of the attached report from Pinion Advisory and the key diagnostics in Section 2.1 of the *Approved Conservation Advice for the Mallee Bird Community*

of the Murray Darling Depression Bioregion (DAWE 2021), this vegetation is likely to contain the MBC. The proposed action will result in the permanent loss of this habitat. The Approved Conservation Advice also identifies land clearing as a key threatening process for this community.

The MBC is a listed Priority Place under the Australian government's *2022-2032 Threatened Species Action Plan* (p. 45).

The Significant Impact Criteria for critically endangered and endangered ecological communities on page 11 in the MNES Significant Impact Guidelines (DOE 2013) states the following:

An action is likely to have a significant impact on a critically endangered or endangered ecological community if there is a real chance or possibility that it will:

- *reduce the extent of an ecological community*
- *fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines*
- *adversely affect habitat critical to the survival of an ecological community*
- *modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns*
- *cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting*
- *cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to:*
    - *assisting invasive species, that are harmful to the listed ecological community, to become established, or*
    - *causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community, or*
- *interfere with the recovery of an ecological community.*

There is a real chance or possibility that the proposed action will reduce the extent of the ecological community. Based on this a significant impact is likely.

Pre-referral consultation with staff from DCCEEW (Southern NSW EPBC Assessment Section) confirmed that the removal of 52 hectares of MBC habitat is likely to be considered significant.

Listed Threatened Species

The attached assessment report by Pinion Advisory contains a detailed assessment of impacts for listed threatened species with suitable habitat likely to occur within the project area. No significant impacts on any of the listed threatened species were identified (240725 V1 Pinion Advisory Report, Appendix 11).

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

Yes

4.1.4.8 Please elaborate why you 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. This list of protected matters includes:

- listed threatened species and ecological communities

The actions that the proponent intends to carry out will result in the permanent loss of 52 hectares of vegetation which is likely to contain habitat for the Mallee Bird Community of the Murray Darling Depression Bioregion, a listed threatened ecological community under the EPBC Act.

The likely significant impact on this threatened ecological community means that the the proposed activity likely constitutes a controlled activity as defined under the EPBC Act (1999).

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 impact in the 113.2 hectare clearing area will result in the complete loss of all native vegetation within the area. There is no scope within the proponent's current proposal to avoid any areas of native vegetation within the area designated for clearing, or to mitigate the impacts of the intended clearing. If the proposal is approved, it will result in all 113.2 hectares of the proposed irrigation development site's native vegetation being cleared and the site's permanent conversion to use for horticulture.

However, as part of the application under the *Land Management (Native Vegetation) Code 2018*, the proponent has identified an area of native vegetation that will be permanently set aside for conservation purposes. This area will be actively managed to enhance its biodiversity values and certified by Local land Services under the *Land Management (Native Vegetation) Code 2018.*

This area is located at the eastern boundary of the proponent's property. At 738.5 ha in area, it is several times larger than the clearance area (113.2 ha), has a higher diversity of native flora and lower density of exotic flora (241108 V2 Pinion Biodiversity Report, Section 6.4 pp.33-34). The clearance area (113.2 ha) includes 52 ha of the mallee-dominant PCT 170. However, the offset area (738.5 ha) includes two mallee-dominant PCTs (170 and 171) which collectively have an area of 322.22 ha. This represents a preservation to loss ratio that exceeds 6:1. The remaining 413.66 ha of the offset area consists of PCT58 (Black Oak - Western Rosewood open woodland on deep sandy loams mainly in the Murray Darling Depression Bioregion) and this was observed by Pinion Advisory as being in better condition than the same PCT in the clearance area. (241108 V2 Pinion Advisory Report, Section 4, p. 33).

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

As part of the application to LLS under the *Land Management (Native Vegetation) Code 2018*, the proponent is proposing to permanently set aside aside an area of land as an offset site that will be managed for conservation purposes on a permanent basis. The area of mallee bird community that will be lost due to the proposed actions is 52 hectares. The area that is being offered as an offset site contains over 300 hectares of mallee bird community habitat. This is an offset to loss ratio of over 6:1 for that ecological community type. The offset site is on the eastern extremity of the proponents property. The total area of the proposed offset site is 738.5 hectares (refer to attached Conservation Area Map, Proposed Set Aside Area (738.5 ha)).

Adjoining the southern boundary of the proposed offset area site are two existing conservation areas located on the property (approved under NSW state legislation). These actively managed areas total approximately 1,546 hectares (refer to attached Conservation Area Map, Approved Conservation Area (583 ha) and Approved Set Aside Area (963 ha)). These existing conservation areas in turn abut another large area set aside for conservation purposes on the neighboring property to the south (approximately 2,016 ha) (refer to attached Conservation Area Map, Approved Conservation Area Sth (2016 ha)).

The conservation areas already established on the proponents property were established under NSW State legislation. The proponent is obligated to adhere to numerous conditions designed to ensure that these areas are actively managed to ensure that the biodiversity values associated with these areas are maintained, enhanced and preserved. The proponent is already undertaking the actions required by the conditions of the existing conservation areas, and these actions will be extended to the additional offset site area related to this proposal.

The assessment undertaken by Pinion Advisory included the proposed 738.5 ha offset area. Details of this assessment are provided in the attached Pinion Advisory report (241108 V2 Pinion Advisory Report, Section 4 pp. 16-25).

In addition the proponents proposed offset adjoins a proposed offset area (1,703 ha) on the neighboring property to the north (refer to attached Conservation Area Map, Proposed Set Aside Area Nth (1,703 ha)) which in turn abuts a large area already set aside for conservation (8,413 ha) further to the north on the same property (refer to attached Conservation Area Map, Approved Conservation Area Nth (8,413 ha)). The proponent's and the neighbors' proposed offset areas will provide a link between two large areas which are currently privately managed for conservation purposes. If the proposed offsets are approved the total connected area managed for conservation will be approximately 14,417 hectares across three properties (see attached conservation area mapping)

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	Actitis hypoleucos	Common Sandpiper
Yes	No	Apus pacificus	Fork-tailed Swift
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Calidris melanotos	Pectoral Sandpiper
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Motacilla flava	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. *

The degree of the likely impacts on the migratory species (also listed as threatened under the EPBC Act) was assessed by Pinion Advisory (241108 V2 Pinion Advisory Report, Section 5.2, Table 14).

The findings are summarised below.

1. Latham's Snipe (*Gallinago hardwickii*): No impact -species not present. *G. hardwickii b*reeds in Japan and migrates to eastern Australia during the northern hemisphere winter. It feeds on mudflats and in shallow water and roosts in and around small wetlands and creek banks. There are none of the species' preferred feeding or roosting resources available on the proponent's property.

2. Sharp-tailed Sandpiper (*Calidris acuminata*): No impact -species not present. *C. acuminata* breeds in Siberia and migrates to Australia during the northern hemisphere winter. In Australia, it frequents mudflats and permanent shallow water areas. None of the species' required habitat features are located on the proponent's property.

3. Curlew Sandpiper (*Calidris ferruginea*): No impact -species not present. *C. ferruginea* breeds in Siberia and migrates to Australia during the northern hemisphere winter. It is a wading species that feeds by foraging on mudflats and shallow waters. The food resources required by this species are not present on the proponent's property.

The remaining species were not directly addressed in the Pinion assessment as they are not listed in the Threatened Category. A summary of their habitat and resource requirements is listed below. 1.

1. Yellow Wagtail (*Motacilla flava*). No impact – species not present. The species typically requires habitats consisting of open grassy flats near water, and is mostly confined to the Australia coastline. The nearest recorded sightings are in excess of 300 kilometres south of the proponent’s property. (Atlas of Living Australia - Eastern Yellow Wagtail, accessed 7/11/24; Migratory Birds Draft Guideline, DCCEEW; pp.14-15)

2. Common Sandpiper (*Actitis hypoleucos*). No impact – species not present. This species is a wading species, feeding in shallow water and on mudflats. The clearance area does not contain this type of habitat. (Atlas of Living Australia - Common Sandpiper, accessed 7/11/24.)

3. Pectoral Sandpiper (*Calidris melanotos*). No impact – species not present. This species is a wading species that requires wetlands and mudflats to obtain food resources. The clearance area does not include this type of habitat. (Species Profile and Threats database - *Calidris melanotos* — Pectoral Sandpiper, DCCEEW, accessed 7/11/24).

4. Fork-tailed Swift (*Apus pacificus*). **Direct impact**. This species is a non-breeding visitor to all parts of Australia. *A. pacificus* is almost exclusively aerial over its Australian range and feed exclusively on flying insects. The clearance 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, *A. pacificus’* range includes the entire Australian continent so any impact from the proponent’s actions will be very minor. (Species Profile and Threats Database, *Apus pacificus* - Fork Tailed Swift, accessed 7/11/24).

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. *

As outlined above in Section 4.1.5.2 impacts on migratory species is limited to direct impacts on potential feeding habitat of Fork-tailed Swift (*Apus pacificus*). The attached Draft Referral Guideline (Att3 DCCEEW Migratory birds draft guideline, p.10) identifies modelled distribution across the entire Australian continent as well as Tasmania and offshore islands. 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 action may impact the number of flying insects available as a food resource within the project area, however the the project area may still be utilised by *A. pacificus* for foraging following the proposed action. Any impacts on *A. pacificus* 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 (p.6), any impacts on *A. pacificus* are not likely to be significant due 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.

4.1.5.7 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. *

A controlled action is an action that is likely to have a significant impact on a protected matter listed under Part 3 of the EPBC Act. This list of protected matters includes:

- listed migratory species

As described in Section 4.1.5.6 the proposed action is not likely to significantly impact any of the identified migratory species. As a consequence any impacts on migratory species are unlikely to be considered a controlled action.

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 impact in the 113.2 hectare clearing area will result in the complete loss of all native vegetation within the area. There is no scope within the proponent's current proposal to avoid any areas of native vegetation within the area designated for clearing, or to mitigate the impacts of the intended clearing. If the proposal is approved, it will result in all 113.2 hectares of the proposed irrigation development site's native vegetation being cleared and the site's permanent conversion to use for horticulture.

However, as part of the application under the *Land Management (Native Vegetation) Code 2018*, the proponent has identified an area of native vegetation that will be permanently set aside for conservation purposes. This area will be actively managed to enhance its biodiversity values and certified by Local land Services under the *Land Management (Native Vegetation) Code 2018.*

This area is located at the eastern boundary of the proponent's property. At 738.5 ha in area, it is several times larger than the clearance area (113.2 ha), has a higher diversity of native flora and lower density of exotic flora (241108 V2 Pinion Biodiversity Report, Section 6.4 pp.33-34).

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

As outlined in Section 4.1.5.9 impacts on migratory species are not likely to be considered a controlled action, therefore no offsets will be required for impacts on migratory species. However, as described in Section 4.1.4.11, as part of the application to LLS under the Land Management (Native Vegetation) Code 2018, the proponent is proposing to permanently set aside aside an area of land (738.5 ha) as an offset site that will be managed for conservation purposes on a permanent basis.

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:

- Threatened Species and Ecological Communities (S18)

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)
- 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 clearing of the native vegetation from the site is necessary for the development to proceed. The land needs to be entirely cleared to allow for its conversion to irrigated horticulture. There is no scope within the area allocated for clearing to leave patches of native vegetation or to avoid clearing some of the native vegetation. The complete clearing of the project area is required for the following reasons:

1. **Layout of the orchard blocks**. The citrus trees 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 into the proponent's existing system. In order to provide each tree 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 tree. The only efficient manner of doing this depends on the total clearing of native vegetation from the site. This allows for the construction of a simple squared grid system and avoids the complexities inherit with designs that are forced to avoid remnant patches of vegetation.
3. **Competition**. Native vegetation, especially eucalypt species, has been shown to compete with various crop varieties, This has the effect of diminishing overall yields and increasing the costs associated with various agricultural inputs.
4. **Optimal development of proponent's property**. The area identified for clearing abuts the existing areas that have been developed and adjoining areas that have already been approved for development. The clearing of the area of land referred to in this application, will permit the full and complete development of the part of the proponent's property that has been assessed as having the optimal 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 along the eastern frontage of Wentworth-Pooncarie Road, which provides the only access to the site. This makes it a convenient location for the receival 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 (as well as the area already developed) was identified as having soil types that are suitable for the production of citrus and winegrapes.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	240725 V1 Pinion Biodiversity Report.pdf Version 1 of Biodiversity Assessment Report for proposed irrigation development (superseded by Version 2)	25/07/2024	No	High
#2.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	08/11/2024	No	High
#3.	Document	IrrigationDesign_A3P.pdf Irrigation design plan showing the existing layout and the proposed layout for the clearance area.	27/06/2024	No	High

2.2.5 Tenure of the action area relevant to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	07/11/2024		High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	240725 V1 Pinion Biodiversity Report.pdf Version 1 of Biodiversity Assessment Report for proposed irrigation development (superseded by Version 2)	24/07/2024	No	High
#2.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	07/11/2024	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	240725 V1 Pinion Biodiversity Report.pdf Version 1 of Biodiversity Assessment Report for proposed irrigation development (superseded by Version 2)	24/07/2024	No	High

#2.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	07/11/2024	No	High

3.1.4 Gradient relevant to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	240725 V1 Pinion Biodiversity Report.pdf Version 1 of Biodiversity Assessment Report for proposed irrigation development (superseded by Version 2)	24/07/2024	No	High
#2.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	07/11/2024	No	High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	240725 V1 Pinion Biodiversity Report.pdf Version 1 of Biodiversity Assessment Report for proposed irrigation development (superseded by Version 2)	24/07/2024	No	High
#2.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	07/11/2024	No	High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	240725 V1 Pinion Biodiversity Report.pdf Version 1 of Biodiversity Assessment Report for proposed irrigation development (superseded by Version 2)	24/07/2024	No	High
#2.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	07/11/2024	No	High

3.3.2 Indigenous heritage values that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	LLS AHIMS.pdf AHIMS search result	01/07/2024	No	High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Bellevue Groundwater Impact Assessment.pdf Assessment of impact to groundwater resulting from irrigation development	14/01/2022	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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	240725 V1 Pinion Biodiversity Report.pdf Version 1 of Biodiversity Assessment Report for proposed irrigation development (superseded by Version 2)	24/07/2024	No	High
#2.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	07/11/2024	No	High
#3.	Link	(Approved Conservation Advice for Swainsona murrayana (Slender Darling Pea) https://www.environment.gov.au/biodiversity/thre..			High
#4.	Link	Conservation Advice for Hemiaspis damelii (grey snake) https://www.environment.gov.au/biodiversity/thre..			High
#5.	Link	National Recovery Plan for the Macquarie Perch (Macquaria australasica) https://www.dcceew.gov.au/sites/default/files/do..			High

4.1.4.5 (Threatened Species and Ecological Communities) Why you consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	240725 V1 Pinion Biodiversity Report.pdf Version 1 of Biodiversity Assessment Report for proposed irrigation development (superseded by Version 2)	24/07/2024	No	High
#2.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	07/11/2024	No	High
#3.	Link	Approved Conservation Advice for the Mallee Bird Community of the Murray Darling Depression Bioregio https://www.environment.gov.au/biodiversity/thre..			High
#4.	Link	Threatened Species Action Plan 2022-2032 https://www.dcceew.gov.au/sites/default/files/do..			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	Att1 Pinion Survey 2024.pdf Biodiversity assessment of the area to be cleared and the area to be set aside for conservation.	01/07/2024	No	High
#2.	Document	Att2 Conservation areas mapping.pdf Map of existing and proposed conservation areas including neighbouring properties	01/07/2024	No	High

4.1.4.10 (Threatened Species and Ecological Communities) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	08/07/2024	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	240725 V1 Pinion Biodiversity Report.pdf Version 1 of Biodiversity Assessment Report for proposed irrigation development (superseded by Version 2)	24/07/2024	No	High
#2.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	07/11/2024	No	High
#3.	Document	Conservation Area Map A3L.pdf Map of existing and proposed conservation areas including neighbouring properties	13/11/2024	No	High

4.1.5.2 (Migratory Species) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	240725 V1 Pinion Biodiversity Report.pdf Version 1 of Biodiversity Assessment Report for proposed irrigation development (superseded by Version 2)	24/07/2024	No	High
#2.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	07/11/2024	No	High
#3.	Document	Att3 DCCCEEW Migratory birds draft guideline.pdf Referral guideline for 14 birds listed as migratory species under the EPBC Act.	01/09/2015		High
#4.	Link	Atlas of Living Australia - Common Sandpiper https://bie.ala.org.au/species/https://biodivers..			High
#5.	Link	Atlas of Living Australia - Eastern Yellow Wagtail https://bie.ala.org.au/species/https://biodivers..			High

#6.	Link	Species Profile and Threats Database - Apus pacificus — Fork-tailed Swift https://www.environment.gov.au/cgi-bin/sprat/pub..	High
#7.	Link	Species Profile and Threats Database - Calidris melanotos — Pectoral Sandpiper http://www.environment.gov.au/cgi-bin/sprat/publ..	High

4.1.5.6 (Migratory Species) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att3 DCCCEEW Migratory birds draft guideline.pdf Referral guideline for 14 birds listed as migratory species under the EPBC Act.	31/08/2015		High

4.1.5.10 (Migratory Species) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	241108 V2 Pinion Biodiversity Report.pdf Version 2 of Biodiversity Assessment Report for proposed irrigation development	07/11/2024	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	140 Pine Avenue Mildura VIC 3500
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. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ 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. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

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	35001886844
Organisation name	DECENTRALISED DEMOUNTABLES PTY LTD
Organisation address	PO Box 519 Gol Gol NSW 2738
Representative's name	Nadia Wyatt
Representative's job title	Administration Manager
Phone	0438662377
Email	nadia@demountables.com.au
Address	Bellevue Estate, Pooncarie Road, via Wentworth NSW 2648

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

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **Nadia Wyatt of DECENTRALISED DEMOUNTABLES 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. *

☐ I would like to receive notifications and track the referral progress through the EPBC portal. *

✔ 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. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **Nadia Wyatt of DECENTRALISED DEMOUNTABLES 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. *

☐ I would like to receive notifications and track the referral progress through the EPBC portal. *