EPBC Act referral

Australian Government
Department of Agriculture, Water and the Environment

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Title of proposal	**2019/8586 - WIM Resource Pty Ltd Avonbank Heavy Mineral Sands Project**

Section 1

Summary of your proposed action

1.1 Project industry type Mining

1.2 Provide a detailed description of the proposed action, including all proposed activities

Overview

WIM plans to establish a world-class mining operation and concentration plant targeting the Avonbank Heavy Mineral Sands Deposit, which will produce a high-quality mineral concentrate for export overseas.

The Avonbank heavy mineral concentrate (HMC, produced by simple wet gravity separation of the ore) will be of premium grade and quality, containing;

- Zircon - which has extensive markets within the ceramics industry, the largest user of zircon worldwide. Avonbank has high zircon levels
- Ilmenite – mainly used for paint pigment production. Avonbank Ilmenite is well suited as a high-quality feedstock to produce chloride-grade titanium slag and high purity iron, confirmed through extensive product development pilot studies
- Rare Earth minerals - well suited to produce rare earth oxides and metals, which are used in a broad range of industries including: energy production, energy reduction, energy efficiency and lifestyle (gadgets, hardware and medical services).

The project area contains the Avonbank deposit, for which WIM holds proven and probable reserves of 311.8 million tonnes @ 4.3% heavy mineral content (JORC, 2012).

Project Description

The total project area is comprised of a Retention Licence covering 6,545 hectares (ha), which contains the Avonbank deposit, a consistent sheet like body, covering approximately 4000 ha. The proposed 30-year maximum land disturbance footprint is within this area and is approximately 3,600 ha, inclusive of all mined areas (approximately 2,500 ha), the process plant, laydown areas, roads, other infrastructure and includes buffer areas for surface water and noise impact management.

The project consists of a progressive ‘moving pit’ mine design with ore mining cells some 300m X 300m and approximately 24-30 m deep, with most ore above the groundwater table. Surface soils and ‘overburden’ from each pit are excavated and direct returned to previous mining cells and the ore is pumped via slurry to the Wet Concentration Plant (WCP) where the HMC is separated from clay and sand by a simple wet gravity circuit.

WIM proposes to locate the WCP and most of the ancillary components of the project within the Wimmera Intermodal Freight Terminal, (WIFT) Precinct, which lies in the centre of the project area and is subject to Schedule 9 of the Special Use Zone in the Horsham Planning Scheme. The WIFT Precinct includes a dedicated sub-precinct for mineral sands activities, although mineral sands activities are also permissible in some other parts of the Precinct. This will be accessible from an existing highway

All clay and sand (approximately 97% of mined ore material) from the ore is returned by slurry pipeline back to the cells as tailings for consolidation. Mined pits will be progressively backfilled with tailings and overburden and rehabilitated back to agricultural productivity over the 30-year project life. This enables the mining footprint to be minimal at any one time, as the proposed mining cell method supports a direct overburden return, rapid rehabilitation methodology.

The WCP is proposed to be located adjacent to the existing rail line and intermodal facility, which is located at the centre of the project area. This is expected to significantly streamline the operation, reduce traffic and support a more efficient operation over the life of mine for the Avonbank project.

WIM proposes to transport the HMC directly to the Ports of Melbourne or Portland, or possibly to the Port of Geelong or Port Adelaide.

Infrastructure

Avonbank is extremely well located with respect to existing critical infrastructure, including:

- existing freight rail line running through the centre of the project
- an existing intermodal terminal in the centre of the project
- major surface water supply trunk line within 3-4 km of process plant able to supply sufficient volumes of water for the project from the existing GWM surface water allocation.
- high voltage power lines at site (220kV & 66kV) which run through the centre of the project area and adjacent to the proposed Wet Concentration Plant (WCP).

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- existing major roads
- 15km from the city of Horsham
- access to multiple Ports using the existing rail line and intermodal terminal

The site office area is proposed to consist of several demountable buildings and would act as the control point of the entire mining operation. The mine laboratory is proposed to comprise several demountable buildings and would be used to analyse samples from the various stages of separation and the final HMC. A separate series of workshops will be required for storage of spare parts and maintenance of pumps, pipelines and equipment.

Other ancillary components are anticipated to include:
- Onsite electrical substation
- Site workshop for storage and maintenance
- Minor internal roads
- Water and slurry pipelines
- Tailings storage facility
- Earthmoving contractor machinery yard, with an above ground diesel tank
- Laydown yard.

The site offices will likely be located nearby to the WCP, which will form the main operational centre for the project. It Is also possible that the project will include the construction of a dedicated rail siding or loop.

WIM will also need to construct some internal access roads within the project area. The 'Generalised Preliminary Site Layout' (Figure 15) shows a 500m spur line (as labelled) that runs off the main existing rail line. WIM is also examining a 1km rail loop, that simply extends further, within the WIFT Precinct.

1.3 What is the extent and location of your proposed action?

See Appendix B

1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland)

The Avonbank project ('project' or 'Avonbank') is located near the township of Dooen in the Wimmera area of north-western Victoria, about 15km from the town of Horsham (see Figure 2). The Retention licence area of 6545 ha is predominantly comprised of flat, cleared farmland used for cropping, with road, road, power and water infrastructure within the retention lease. The site gently sloes to the south east, and contains no permanent waterbodies.

1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?

The project is wholly located within a Retention Licence (RL) covering 6,545 ha, which contains the Avonbank deposit, a consistent sheet like body, covering approximately 4000 ha. The proposed development footprint, including the area to be potentially disturbed for both mining (2,500 ha) and related ancillary infrastructure is approximately 3,600 ha in size (see Figure 2).

1.7 Proposed action location

Other - Predominantly cleared farmland used for cropping near Dooen, Victoria.

1.8 Primary jurisdiction Victoria

1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?

☐ Yes ☑ No

1.10 Is the proposed action subject to local government planning approval?

☐ Yes ☑ No

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1.11 Provide an estimated start and estimated end date for the proposed action	Start Date	01/02/2022
	End Date	01/02/2052

1.12 Provide details of the context, planning framework and state and/or local Government requirements

The project site area falls within the Horsham Rural City Council. Export of project product (heavy mineral concentrate) will be via the Port of Portland, or the Port of Melbourne. The Port of Portland is within the Glenelg Shire Council while the Port of Melbourne is within the City of Melbourne. Rail and road transport routes to these ports go through a number of rural and metropolitan local authority areas.

The project area is subject to the Horsham Planning Scheme (Figure 6). Zones and overlays currently applying to the project area include:

- Farming Zone: covers the majority of the project area
- Special Use Zone Schedule 9: To facilitate the use and development of the WIFT Precinct for freight, logistics, transport related activities, industry, manufacturing and other related commercial activities (including mineral sands processing)
- Road Zone – Category 1: Wimmera and Henty highways
- Public Use Zone 4 (Transport): Railway line
- Public Use Zone 2 (Education): Longerenong College
- Land Subject to Inundation Overlay: This covers a small area of the project to the north of Molyneaux Road (also known as Creamery Road). It also extends into the lower south-east corner of the land but outside the current proposed mining area.
- Design and Development Overlay Schedule 11: To ensure the design objectives of the WIFT Precinct Structure Plan are achieved
- Development Plan Overlay Schedule 9: To ensure the development objectives of the WIFT Precinct Structure Plan are achieved
- Environment Significance Overlay Schedule 7: To prevent the development of sensitive uses within the buffer area surrounding the WIFT Precinct.

1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders

WIM developed a preliminary stakeholder engagement plan during exploration and project planning for the Avonbank project, and has undertaken significant stakeholder and community consultation, including

- Proactive focus from project acquisition in late 2012
- Community Exhibit at annual Wimmera Field Days
- Continuous 1:1 meetings with affected land holders
- Annual formal update to landholders
- Quarterly update meetings with Horsham City Council
- Annual stakeholder hampers and updates
- Quarterly meetings with Regional Development Victoria
- Dialogue with state government approvals agencies (including Department of Environment, Land, Water and Planning; Earth Resources Regulation; Environmental Protection Agency)
- Dialogue with Regional Development Victoria (State agency)
- Dialogue with the Victorian Department of Environment, Land, Water and Planning
- A pre-referral meeting the Department of Energy and Environment, September 2019
- Site visits to the proposed site in 2019 and 2020.

WIM has developed a comprehensive Stakeholder Engagement Plan (EES Consultation Plan; Appendix 8), building on extensive community and other stakeholder interaction already undertaken as referenced above.

A formal Community Reference Group has been formed consisting of a range of local and regional stakeholders, and a formal Terms of Reference established. The group has met several times and will meet regularly throughout the duration of project development. It is also intended to establish a community environmental review group once the project is approved.

1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project

The project was referred to the Victorian Minister for Planning under the Environment Effects Act (1978). The Minister determined the project required an Environment Effects Statement to be prepared under the Act.

The following was communicated to WIM Resource, by the Victorian Planning Minister;

DECISION ON PROJECT: Avonbank Heavy Mineral Sands Project

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Decision under section 8B(3)(a) of the Environment Effects Act 1978
Assessment through an Environment Effects Statement (EES) under the Environment Effects Act 1978 is required for the reasons set out in the attached Reasons for Decision.

1.15 Is this action part of a staged development (or a component of a larger project)?

☐ Yes ☑ No

1.16 Is the proposed action related to other actions or proposals in the region?

☐ Yes ☑ No

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Section 2

Matters of national environmental significance

2.1 Is the proposed action likely to have any direct or indirect impact on the values of any World Heritage properties?

☐ Yes ☑ No

2.2 Is the proposed action likely to have any direct or indirect impact on the values of any National Heritage places?

☐ Yes ☑ No

2.3 Is the proposed action likely to have any direct or indirect impact on the ecological character of a Ramsar wetland?

☐ Yes ☑ No

2.4 Is the proposed action likely to have any direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?

☑ Yes ☐ No

Species or threatened ecological community

Flora

- The dominant EVCs are Plains Grassland and Plains Savannah, both of which are endangered, listed under the FFG Act and potentially under the EPBC Act.
- Plains Grassland EVC does not meet the condition thresholds for EPBC Act listing.
- Plains Savannah EVC does not have patch and condition thresholds under the EPBC Act, but is likely to represent a degraded version of the listed community (Buloke Woodlands of the Riverina and Murray Darling Depression Bioregions)

Refer to Avonbank Mineral Sands Project: Survey Findings 2018-2020 (Ecology Australia, 2020) and Figure 13 for details and location of remnant vegetation on the project site.

Impact

Flora

- Vegetation remnants occupy a relatively small proportion of the Retention Lease (approx. 36.8 ha), the project area (18.9 ha) and the mine footprint (13.6 ha). The vast majority of the Retention Lease has a long-term association with broad acre clearing and cropping;
- The majority of remnants are Plains Grassland, Plains Savannah and Black Box Lignum Woodland EVCs, which reflect these as the former dominants of the landscape;
- Plains Grassland EVC forms part of an EPBC Act and FFG Act-listed community. However, no surveyed remnants satisfied the condition thresholds for the EPBC Act-listed community (Approved Conservation Advice 28 August 2012). This relatively poor condition is also reflected in the low Vegetation Condition Scores (16-29), and is consistent with the practice of apparently regular cultivation of roadsides, resulting in species-poor weedy remnants.
- Plains Savannah EVC similarly forms part of an EPBC Act and FFG Act-listed community.. Four of the patches identified in the Retention Lease consist predominantly of stands of remnant Buloke Allocasuarina luehmanni with few other native species. Two patches of planted Buloke were also assessed, which unlike the remnant stands, contained no Large Old Trees (LOTs). While all of these patches conform to the diagnostic characteristics for the community, the key legislative instrument – the National Recovery Plan – does not address condition or patch size thresholds for the community (Cheal et al. 2011). Further correspondence with DoEE confirmed that well defined thresholds for the community are not available.
- A brief examination of the criteria to prioritise actions for the recovery of the community, including size, connectivity, intactness and structural complexity (Cheal et al. 2011) suggest that the identified patches may be at the lower end of the scale for prioritisation. The simplified composition of these remnant and planted patches is also reflected in the Vegetation Condition Scores (14-30). At present it would appear that the remnants represent the listed community, but at the degraded

end of the spectrum.

- Although Plains Grassland and Plains Savannah clearly dominated the former landscape, it would have been punctuated with various seasonal wetland communities, particularly those characterised by Tangled Lignum Duma florulenta. Ecology Australia (2020) identified nine modified patches of Black Box Lignum Woodland mostly in areas of close proximity to Darlot Swamp. Two patches were located within the college grounds and consisted of planted Black Box Eucalyptus largiflorens surrounding a patch of remnant Lignum. Clumps of Lignum were also frequently encountered within road reserves.
- A remnant patch dominated by River Red Gums Eucalyptus camaldulensis identified may have once been an example of Red Gum Swamp surrounded by Black Box Lignum Woodland with the ground storey composition and topography currently more in line with Black Box Lignum Woodland. This EVC has been assessed with the appropriate Red Gum Swamp EVC Benchmark, although this area would most likely have been an isolated patch of Red Gums within Black Box Lignum Woodland.
- A patch of grassland with native planted vegetation was originally surveyed in Spring 2018 and was not deemed a patch under the Guidelines. A later survey was conducted during Autumn 2020 to assess all of the scattered trees within the Retention Lease. During this survey this patch (Habitat Zone 17; refer to Avonbank Mineral Sands Project: Survey Findings 2018-2020, Ecology Australia 2020) was deemed a patch under the Guidelines due to there being a native vegetation cover of greater than 25%. This is probably due to there being less annual weed cover during the Autumn survey and therefore a lower percentage of introduced vegetation. The planted component of this grassland included Black Box Eucalyptus largiflorens and Bulloke Allocasuarina luehmannii. There is a planted vegetation exemption under the Guidelines which does not include vegetation that is planted or managed with public funds for the purpose of enhancing biodiversity. In this case it is assumed that this vegetation was planted using public funds and therefore this planted vegetation is also assessed as part of the patch of native vegetation.
- There was little to no evidence of the EPBC Act -listed Seasonal Herbaceous Wetlands. Although gilgai was evident on the heavier clays and the landscape once typical of

Species or threatened ecological community

Fauna

- No Striped Legless Lizards, Golden Sun Moth, Reddish-orange Sun Moth and Pale Sun Moth were recorded during targeted surveys.
- Dry conditions prevented meaningful surveys for Growling Grass Frogs and waterbirds.
- Sixteen bird species listed under the Marine Schedule of the EPBC Act and two species listed under the Migratory Schedule of the EPBC Act were recorded in the Retention Lease.

Impact

Fauna

Within the Retention Lease area (6,545 ha), approximately 3,600 ha will be potentially impacted by the project (the Project Area), of which approximately 2,500 ha will be cleared for mining (the Mining Area) , and the balance of the Project Area (approximately 1100 ha) partially used for ancillary purposes (laydown areas, roads etc.).

Striped Legless Lizards (SSL) and Golden Sun Moth (GSM) were not recorded during targeted surveys. Both GSM and SLL inhabit native temperate grasslands, and approximately 99.5% of native temperate grasslands have been destroyed or severely degraded due to agricultural and urban development. In particular, both species have been impacted through intense grazing, pasture improvement, ploughing or other heavy disturbance. In addition, weeds and inappropriate fire regimes have further reduced habitat quality for both of these species (DEWHA 2009; DoEE 2016).

Almost all habitat within the Retention Lease has been severely degraded as a result of decades of intensive agriculture. Removal of native vegetation and cultivation mean that the majority of habitat within the Retention Lease is most likely unsuitable for SLL, Golden Sun Moth, Pale Sun Moth and Reddish-orange Sun Moth. Following the targeted surveys, the likelihood of these species being present within the Retention Lease has changed from moderate to low.

Growling Grass Frog surveys were not conducted. However, following further time spent on site, there is little suitable long-term habitat for Growling Grass Frogs within the Retention Lease. Aside from a small section of Dooen Swamp in the south west of the Retention Lease and a small drainage line in the south-east, there are no significant drainage lines or depressions across the Retention Lease. The drainage lines present on site are ephemeral and unlikely to hold water except following major rainfall. Since the region moved from open irrigation channels to pipeline in 2010 (the Wimmera Mallee Pipeline), the availability of artificial water across the landscape (dams and irrigation channels) is diminished. As a result, Growling Grass Frogs may only be present in the Retention Lease following major rainfall events, with the majority of activity likely restricted to the established drainage lines in the south east of the Retention Lease, Dooen and Darlot Swamps, and the surrounding terrestrial habitat.

Incidental observations reveal that the general area supports a diverse array of birds, with 93 species recorded. The large dam next to the Viterra loading facility located approximately 1 km north of Dooen township and partially within the Retention

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Lease supports several species of waterbirds, including species listed under the EPBC Act Marine and Migratory Schedules as well as species classified in Victoria. This indicates that where water is present, the Retention Lease may support a range of waterbirds including some listed under Marine and Migratory Schedules of the EPBC Act and classified on the Victorian advisory list (DSE 2013), and has the potential to support species listed under the EPBC Act or FFG Act.

2.4.2 Do you consider this impact to be significant?

☐ Yes ☑ No

2.5 Is the proposed action likely to have any direct or indirect impact on the members of any listed migratory species or their habitat?

☑ Yes ☐ No

Migratory species

Refer to Table 6 of Appendix 3 Avonbank Mineral Sands Project Surveys 2020 (Ecology Australia, 2020)

Impact

Incidental observations reveal that the general area supports a diverse array of bird. The large dam next to the Viterra loading facility located approximately 1 km north of Dooen township and partially within the Retention Lease supports several species of waterbirds, including species listed under the EPBC Act Marine and Migratory Schedules. This indicates that where water is present, the Retention Lease may support a range of waterbirds including some listed under Marine and Migratory Schedules of the EPBC Act.

There are no permanent water bodies with the Project Area apart from a few small farm dams. During mining, there will be a process water dam to recycle water used in the wet process to separate the mineral sand product from the tailings, and there will be a requirement for a tailings storage facility to be constructed. Some temporary water holding structures may be required to prevent runoff from overland surface water flow from rainfall events entering the mining pits or causing site runoff issues.

Surface water modelling will be conducted to define this requirement.

2.5.2 Do you consider this impact to be significant?

☐ Yes ☑ No

2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?

☐ Yes ☑ No

2.7 Is the proposed action likely to be taken on or near Commonwealth land?

☐ Yes ☑ No

2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

☐ Yes ☑ No

2.9 Is the proposed action likely to have any direct or indirect impact on a water resource from coal seam gas or large coal mining development?

☐ Yes ☑ No

2.10 Is the proposed action a nuclear action?

☐ Yes ☑ No

2.11 Is the proposed action to be taken by a Commonwealth agency?

☐ Yes ☑ No

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2.12 Is the proposed action to be undertaken in a Commonwealth Heritage place overseas?

☐ Yes ☑ No

2.13 Is the proposed action likely to have any direct or indirect impact on any part of the environment in the Commonwealth marine area?

☐ Yes ☑ No

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Section 3

Description of the project area

3.1 Describe the flora and fauna relevant to the project area

Flora

Ecology Australia ((Avonbank Mineral Sands Project: Survey Findings 2018-2020 (Ecology Australia, 2020) concluded that;

- The project area/Retention Lease area is mostly a cropped landscape with modified remnants restricted to roadsides and paddocks.
- Approximately 36.8 ha of remnant vegetation is present in the Retention Lease, 18.9 ha is within the project area, and 13.6 ha is within the proposed mining footprint.
- The dominant EVCs are Plains Grassland and Plains Savannah, both of which are endangered, listed under the FFG Act and potentially under the EPBC Act.
- Black Box Lignum woodland also occurred in parts of the Retention Lease with patches mainly persisting in close proximity to Darlot Swamp.
- Plains Grassland EVC does not meet the condition thresholds for EPBC Act listing.
- Plains Savannah EVC does not have patch and condition thresholds under the EPBC Act, but is likely to represent a degraded version of the listed community (Buloke Woodlands of the Riverina and Murray Darling Depression Bioregions)
- No plant species listed under the EPBC Act or FFG Act were recorded in the Retention Lease, however Buloke has an advisory list classification of endangered and is common.
- Darlot and Dooen Swamps support several threatened wetland EVCs in good condition.
- Both Swamps were dry at the time of sampling and one threatened species was recorded.
- There are approximately 147 scattered trees within the Retention Lease with 108 being surveyed and the remaining c. 39 trees still to be assessed.
- Of the 108 surveyed trees within the Retention Lease (55 in project area), 65 are confirmed to be Large Old Trees (LOTs) (37 in project area), with the majority of unsurveyed trees predicted to be LOTs.

Fauna

- No Striped Legless Lizards, Golden Sun Moth, Reddish-orange Sun Moth and Pale Sun Moth were recorded during targeted surveys.
- Dry conditions prevented meaningful surveys for Growling Grass Frogs and waterbirds.
- Sixteen bird species listed under the Marine Schedule of the EPBC Act, two species listed under the Migratory Schedule of the EPBC Act, two species listed under the FFG Act and six species classified on Victorian Advisory List were recorded in the Retention Lease.

3.2 Describe the hydrology relevant to the project area (including water flows)

Surface water There are no natural waterways, permanent surface wetlands marine environments or listed groundwater dependent ecosystems (GDE) located within the Retention Licence or mining footprint, and no RAMSAR wetlands within 100km of the project area. Some minor ephemeral lines are mapped to occur as part of the drainage network of the project area, however these have now been decommissioned as a function of the installation of the Grampians Wimmera Mallee pipeline network. All available evidence suggests a low likelihood of any significant impact on surface water or drainage paths as a result of the proposed operations.

Groundwater

A baseline groundwater monitoring bore network has been installed across the project area, consisting of a total of 28 bores. Fourteen of these bores access the Parilla Sands Aquifer (PSA), and three bores access the Renmark Formation Aquifer (RGA). From the monitoring bore data, the saturated thickness of the PSA aquifer system was approximately 4m to 8m throughout the project area.

Average groundwater salinity, as measured in the network was approximately 9,000 mg/L TDS, with a maximum of approximately 11,100 mg/L and a minimum of 5,100 mg/L (GHD, 2018) (Appendix 4). There are 42 registered groundwater bores within 5 kilometres of the project area, with the majority of the bores being used for groundwater investigation/observation purposes and only two bores registered for domestic and stock purposes. The low level of groundwater use reflects the relatively high groundwater salinity in the aquifer system, which precludes crop irrigation.

Recharge from the project area to the PSA system is minimal, if any, as reflected by the relatively high groundwater salinity. Low rainfall and high evaporation rates result in minimal recharge to the system, with diffuse recharge probably occurring during wet years, and localised recharge occurring in areas where the PSA has relatively high permeability. To the south and outside of the Retention Licence Area, around the Wimmera River, the overlying Shepparton Formation becomes saturated and forms the water table aquifer (GHD, 2018).

There are no Ramsar wetlands in the project area or within 100km. The Darlot Swamp Wildlife Reserve, and the Dooen

Swamp Bushland Reserve, are approximately 2-3 km south of the proposed mining footprint. The closest Wetlands of National Importance are located approximately 30km to the west on the Wimmera River.

Further details regarding these potential GDEs are outlined in Sections 11 and 13 of this referral, and the location of surface water features is depicted in Figures 8-10

AECOM undertook groundwater bore drilling, and additional groundwater monitoring further site investigations in 2019, concluding that

- Parilla Sands Aquifer beneath the proposed mine footprint is brackish (salinity generally 6,000 to 13,000 mg/L TDS) with limited users in the vicinity of the area (only two registered stock and domestic bores within a 5 km radius)
- Groundwater within the upper aquifer shows a general increase in salinity down flow path (northwards), away from the surface drainage features present south of the proposed Mine
- There is little change in hydro-geochemistry between up-gradient bores (south), bores adjacent to surface drainage features, bores screened within the mineralised zone and down gradient outside of the mineralised zone (north)
- The depth to groundwater beneath the lowest points of Darlot and Dooen Swamps is greater than 5m (measured in March 2019 at 5.9m and 6.2m respectively)
- Downward vertical gradient immediately adjacent to swamps.

Figures 8-10 indicate bores drilled, and inferred groundwater elevation gradient in the vicinity of RL 2014 (GHD 2018) and include the further findings of AECOM 2019 (Appendices 4 and 5).

Groundwater resources are not expected to be significantly affected by the project. Groundwater studies completed to date indicate the proposed mining operation is likely to intercept groundwater only in the lower third of the ore body at some locations (GHD, 2018; AECOM 2019). This assessment is based on groundwater levels, as measured from a network of monitoring bores installed across the project area in the Parilla Sands Aquifer (Figures 8 and 9).

Preliminary aquifer parameter test work indicates that in-pit sump dewatering will be sufficient for managing groundwater inflows, which is expected during mining. The proposed dewatering will cause groundwater drawdown immediately around the pit. However, hydraulic conductivity of the PSA is generally low (GHD 2018; AECOM 2019) which means the distance from the pits that drawdown occurs is expected to be low, but will be further assessed and modelled prior to operations.

Groundwater for the PSA is also poor quality (salinity generally >6,000 mg/L TDS) and there are limited users in the vicinity of the mine plan area (only two stock and domestic bores within a 5 km radius).

3.3 Describe the soil and vegetation characteristics relevant to the project area

Regional and Project Scale Soil Types

There are four main categories of soil noted by Victoria Resources Online in the Wimmera Region, being:

- Cracking Clays (Vertosols). Grey vertosols are most common and extend throughout the region;
- Texture contrast soil (Sodosols). Red sodosols occur in the older alluvial plains such as the main tributaries to the Lakes and around the Wimmera River associated with the Northern riverine Plains. Brown and Yellow Sodosols occur with other soils in the dune fields in the western portion of the Wimmera;
- Soil lacking strong texture contrast (Calcarosols). Occuring mainly north of Dimboola and Warracknabeal but also west of Kaniva;
- Sandy soil (Tenosols, Rudosolos, Podosols). These soils are mainly associated with the sand dune areas of the west and north-west of the Wimmera region and also around the edge of the Grampians.

A number of soil studies have been undertaken in the Wimmera Region; however most have focussed south of the Wimmera River around the Grampians. The Soils of the Horsham Map Sheet was prepared in 1977 and includes the soil within the Avonbank HMS Project. The Soil Landscape Unit at the site is predominantly “Gently Undulating Plains” with small areas of “Flood Plain” along the south eastern boundaries. The main soil types occurring in the gently undulating plains are:

Soil Association H1 – Grey Vertosols.

The most common soil type in the Landscape unit (60%) and mainly occurring north of the Wimmera. Grey cracking clays consist of up to 25 cm of friable, self-mulching brownish grey to grey-brown, light to medium clay overlying mottled heavy clay. Cracking calcareous brown clays are also present but are distinguished by their non-friable surface from the Grey Cracking Clays. Red-brown earths may be found on some rises and low ridges. Highly productive agricultural soil used for wheat and may also be used for irrigated pastures.

Soil Association H3 – Sodosols

Approximately 20% landscape unit and occurs mainly south of Wimmera River. Noted as including solonetz (saline, alkaline and sodic throughout A2 present), solodised solonetz (saline, alkaline and sodic B horizon with bleached A2) and solodic (saline, alkaline and sodic subsoil). The greyish brown to brownish grey topsoil (8-45 cm depth) varies from loamy

sand to sandy clay loam topsoil. The A2 horizon is massive and variously bleached. Subsoil is mottled yellowish grey and brown to red-brown heavy clay with moderate structure. Non-friable calcareous grey and brown clay soil is also present. Mainly used for sheep grazing (wool and fodder production).

Soil Association H6 - Cracking calcareous brown clays

Approximately 12% landscape unit. Comprises reddish medium to heavy clay topsoil (5-30 cm depth) over red-brown heavy clay with strong structure. Hard when dry, becoming friable when moist and plastic and sticky when wet (12%). Mainly used for wheat production.

Two main Soil/landform Units are mapped as within the boundaries of the Avonbank HMS Project:

- St Helens gentle plains – This is the main unit within the Avonbank HMS boundaries. Soil group 34 dominant. Alkaline throughout with non-sodic topsoil and subnatric subsoil. Low risk of sheet/ rill erosion, gully/tunnel erosion and wind erosion. High risk of soil compaction. Used for dryland cropping and grazing
- Dooen eroded plain – Soil group 34 dominant with characteristics as described above. Some of the most productive cropping landscapes of the region used for dryland cropping

Based on published reports Soil Group 34 is described as cracking clay soils comprised of 10 cm of dark grey light to medium clay overlying a calcareous, dark grey heavy clay subsoil to 130 cm. The strongly structure subsoil is noted to grade to a yellower clay at depths continuing below 2 m. This pale subsoil is further noted to have restricted drainage, often strongly acidic and likely to be dispersive.

It is noted that the south-western corner encroaches into the Horsham Lakes and Lunettes unit, associated with the Dooen Swamp. Mining is not proposed to be undertaken within the Swamp.

Vegetation is described in in Ecology Australia (2020) as mostly a cropped landscape with modified remnants restricted to roadsides and paddocks.

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area

Nil. The project area is flat with no elevated features, and is and predominantly used for cropping.

3.5 Describe the status of native vegetation relevant to the project area

Overall the study area is characterised by low relief topography, has been extensively cleared of native vegetation, and is mostly cropped. The underlying geology is alluvial (Shepparton Formation) and surface soils are medium to heavy clays. Combined with a relatively low average rainfall – approximately 400 mm/pa – these conditions suggest that the former dryland vegetation was a mosaic of Plains Savannah and Plains Grassland Ecological Vegetation Classes (EVCs). These EVCs remain as scattered remnants across the project area. The Darlot and Dooen Swamps are ephemeral and are Black Box (Eucalyptus largiflorens) and Red Gum (E. camaldulensis dominated respectively).

- Vegetation remnants occupy a relatively small proportion of the Retention Lease (approx. 36.8 ha), the project area (18.9 ha) and the mine footprint (13.6 ha). The vast majority of the Retention Lease has a long-term association with broad acre clearing and cropping;
- The majority of remnants are Plains Grassland, Plains Savannah and Black Box Lignum Woodland EVCs, which reflect these as the former dominants of the landscape;
- Plains Grassland EVC forms part of an EPBC Act and FFG Act-listed community.. However, no surveyed remnants satisfied the condition thresholds for the EPBC Act-listed community (Approved Conservation Advice 28 August 2012). This relatively poor condition is also reflected in the low Vegetation Condition Scores (16-29) and is consistent with the practice of apparently regular cultivation of roadsides, resulting in species-poor weedy remnants.
- Plains Savannah EVC similarly forms part of an EPBC Act and FFG Act-listed community. Four of the patches identified in the Retention Lease consist predominantly of stands of remnant Buloke Allocasuarina luehmanni with few other native species. Two patches of planted Buloke were also assessed, which unlike the remnant stands, contained no Large Old Trees (LOTs). While all of these patches conform to the diagnostic characteristics for the community, the key legislative instrument – the National Recovery Plan – does not address condition or patch size thresholds for the community (Cheal et al. 2011). Further correspondence with DoEE confirmed that well defined thresholds for the community are not available.

  A brief examination of the criteria to prioritise actions for the recovery of the community, including size, connectivity, intactness and structural complexity (Cheal et al. 2011) suggest that the identified patches may be at the lower end of the scale for prioritisation. The simplified composition of these remnant and planted patches is also reflected in the Vegetation Condition Scores (14-30). It would appear that the remnants represent the listed community, but at the degraded end of the spectrum.
- Although Plains Grassland and Plains Savannah clearly dominated the former landscape, it would have been punctuated with various seasonal wetland communities, particularly those characterised by Tangled Lignum Duma florulenta. We identified nine modified patches of Black Box Lignum Woodland mostly in areas of close proximity to Darlot Swamp. Two patches were located within the college grounds and consisted of planted Black Box Eucalyptus largiflorens surrounding a patch of remnant Lignum. Clumps of Lignum were also frequently encountered within road reserves.
- Habitat Zone 8 (Table 5; Appendix 3 Avonbank Mineral Sands Project Surveys 2020 (Ecology Australia 2020)) is a

remnant patch dominated by River Red Gums Eucalyptus camaldulensis. This area may have once been an example of Red Gum Swamp surrounded by Black Box Lignum Woodland with the ground storey composition and topography currently more in line with Black Box Lignum Woodland. This EVC has been assessed with the appropriate Red Gum Swamp EVC Benchmark, although this area would most likely have been an isolated patch of Red Gums within Black Box Lignum Woodland.

- There was little to no evidence of the EPBC Act -listed Seasonal Herbaceous Wetlands. Although gilgai was evident on the heavier clays and the landscape once typical of this community, its persistence is at odds with decades of intensive agriculture.

Refer to Figure 13 for detail of locations of remnant vegetation.

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

The gradient across the entire site is generally flat, with a slight elevation towards the south east. Figure 10 provides contour information for the site.

3.7 Describe the current condition of the environment relevant to the project area

The existing environment is described in Appendices 1-3 and in Appendix 3 Avonbank Mineral Sands Project Surveys 2020 (Ecology Australia, 2020)

Overall the study area is characterised by low relief topography, a very high portion of land cleared for agriculture, and the prevalence of cropping. The underlying geology is alluvial (Shepparton Formation) and surface soils are medium to heavy clays. Combined with a relatively low average rainfall – approximately 400 mm/pa – these conditions suggest that the former dryland vegetation was a mosaic of Plains Savannah and Plains Grassland Ecological Vegetation Classes (EVCs). These EVCs remain as small scattered remnants across the project area. The Darlot and Dooen Swamps (outside the project area) are ephemeral and are Black Box Eucalyptus largiflorens and Red Gum E. camaldulensis dominated respectively.

The project will result in the removal of a maximum of 18.9 ha of remnant native vegetation from within the Project Area, inclusive of 13.6 ha withing the mine footprint. For the most part, impacted EVCs do not meet the condition thresholds for EPBC Act listing. Other listed flora species, notably Buloke and Buloke mistletoe, will be impacted. Overall however, it is not considered that the referred action will have a significant impact on these EVCs and flora species.

Similarly, it is not considered that the Project will compromise the ecology within any GDEs nor compromise the hydrology of potentially important surface water features such as Darlot and Dooen Swamps.

The ecological surveys undertaken to date do not indicate that the mine footprint provides significant habitat for listed threatened species.

In summary, it is not considered that the referred action will have a significant impact on listed threatened species and ecological communities.

The ecological surveys undertaken to date do not indicate that the mine footprint provides significant habitat for listed migratory species.

Similarly, it is not considered that the Project will compromise the ecology within any GDEs nor compromise the hydrology of potentially important surface water features such as Darlot and Dooen Swamps.

3.8 Describe any Commonwealth Heritage places or other places recognised as having heritage values relevant to the project

None

3.9 Describe any Indigenous heritage values relevant to the project area

WIM engaged Landskape Pty Ltd in late 2016 to conduct a cultural heritage desktop study of the Avonbank project. The cultural heritage manager acting for the Barengi Gadjin Land Council Aboriginal Corporation, the Registered Aboriginal Party for the project area, has also been consulted.

As indicated in Part 2, Section 11 of this referral, Landskape reviewed the Victorian Aboriginal Heritage Register and developed a general predictive model of the potential for Aboriginal heritage to be present within the project area.. The mining area is not within an area of cultural heritage sensitivity as defined by Division 3 of the Victorian Aboriginal Heritage Regulations 2007.

The preliminary desktop study found that no Aboriginal cultural heritage places have been previously identified within the

mining footprint. There are three stone artefact scatters in the vicinity of Dooen Swamp in the southwestern corner of the project area, 2 km outside and south of the mining footprint. There are also a number of scarred trees at Darlot Swamp, 1.9 Km east of the project area (refer to Figure 14). The referred action will have no impact on these artefact scatters and scarred trees.

The report noted that, based on predictive modelling, there is a low to moderate potential for Aboriginal cultural heritage to occur in the mine footprint. The report identified the need for further site investigations to ensure the project is compliant with the Aboriginal Heritage Act 2006.

As the Minister for Planning has determined that an environment effects statement (EES) is required for the referred action, an Aboriginal Cultural Heritage Management Plan (CHMP) for the Avonbank project will be required. WIM will engage with the Barengi Gadjin Land Council Aboriginal Corporation in relation to the requirements for the preparation and approval of a CHMP.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area

Predominantly freehold

3.11 Describe any existing or any proposed uses relevant to the project area

Predominantly cropping, with one area zoned for industry.

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 4

Measures to avoid or reduce impacts

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action

Flora

18.9 ha of remnant native vegetation is present within the project area, and of this the mining area of 13.6 ha will be unavoidably cleared to allow the project to proceed. This will result because of the requirement to establish mining pits to extract commercial ore. Some disturbance will also occur outside the mining footprint but inside the project area, to allow for ancillary project requirements (roads, pipelines, water holding structures etc), but measures will be taken to avoid clearing of remnant native vegetation to the extent practicable through sensitive infrastructure design and siting. .

This mining footprint and project area areas have been minimised within the constraints of commercial and practical project viability. An Environmental Management Plan will be developed and implemented to ensure avoidance of project impacts on vegetation within the project area to the extent practicable.Offsets will need to be identified and secured by binding legal commitments according to relevant policies for the areas to be cleared.

Offset requirements at Victorian and Commonwealth levels have yet to be quantified but will be determined as part of the approvals process.

Fauna

The outcomes of fauna work on the project are;

- No Striped Legless Lizards (SLL) Delma impar, listed as vulnerable under the EPBC Act were recorded during targeted surveys.
- No Golden Sun Moth (GSM) Synemon plana, listed as critically endangered under the EPBC Act,or Victorian-listed moths, were recorded during targeted surveys.
- No Pale Sun Moth and Reddish-orange Sun Moth were recorded during targetted surveys (classified as critically endangered in Victoria) were recorded during targeted surveys.
- Growling Grass Frog Litoria raniformis is listed as vulnerable under the EPBC Act. Dry conditions and lack of any surface water features within the mine footprint, prevented meaningful surveys for Growling Grass Frogs and waterbirds.
- Ten bird species listed under the Marine Schedule of the EPBC Act, including two species listed under the Migratory Schedule of the EPBC Act.

The two potential GDE areas present in the vicinity (but not within) the project area are believed to be ‘groundwater losing’ features and are not expected to be impacted by minor groundwater dewatering required for the project, or by return of saturated tailings following mining and processing activities.

The project area is relatively flat, and without permanent surface water bodies. Surface water investigations will be undertaken to identify potential impacts of project activities on surface water flows.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved

No significant impact

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 5

Conclusion on the likelihood of significant impacts

5.1 You indicated the below ticked items to be of significant impact and therefore you consider the action to be a controlled action

- ☐ World Heritage properties
- ☐ National Heritage places
- ☐ Wetlands of international importance (declared Ramsar wetlands)
- ☐ Listed threatened species or any threatened ecological community
- ☐ Listed migratory species
- ☐ Marine environment outside Commonwealth marine areas
- ☐ Protection of the environment from actions involving Commonwealth land
- ☐ Great Barrier Reef Marine Park
- ☐ A water resource, in relation to coal seam gas development and large coal mining development
- ☐ Protection of the environment from nuclear actions
- ☐ Protection of the environment from Commonwealth actions
- ☐ Commonwealth Heritage places overseas
- ☐ Commonwealth marine areas

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action

Summary

The proposed action is unlikely to have a significant impact on any protected matters and is therefore not a controlled action for the following reasons;

Flora

- The simplified composition of the remnant EVCs as reflected in the Vegetation Condition Scores (Avonbank Mineral Sands Project: Survey Findings 2018-2020 (Ecology Australia, 2020) represent the listed community but at the degraded end of the spectrum. for the most part, the EPBC - listed Plains Grassland EVC does not meet the condition thresholds for EPBC listing. Other listed flora species, Buloke and and Buloke mistletoe, will be impacted.Overall however,the referred action will not have a significant impact on the EVCs and flora species.

Similarly, it is not considered that the project will compromise the ecology within any GDEs nor compromise the hydrology of potentially important surface water features such as Darlot and Dooen Swamp. The ecological surveys undertaken to date do not indicate that the mine footprint provides significant habitat for listed threatened species.In summary, it is not considered that the referred action will have a significant impact on listed threatened species and ecological communities.

Fauna

The ecological surveys undertaken to date do not indicate that the mine footprint provides significant habitat for EPBC-listed migratory species.

Nuclear Action

WIM engaged SGS Melbourne and has commenced a significant Baseline Radiation Study. Representative material for a detailed assessment of ore, tailings and HMC activity studies has been assessed. The final product samples contain radionuclide concentrations that exceed 1Bq/g, but the tailings do not contain radionuclide concentrations that exceed 1Bq/g.

The radiological characteristics (activity concentration in Bq/g)of Avonbank project materials (rounded) are;

	HMC 1 (83%)	HMC 2 (93%)	Tailings
Th (nat)	3.8	5.8	0.09
U (nat)	2.5	3.4	0.07

As there is no thermal or chemical processing proposed for the Avonbank project, it has been assumed that there has been no separation or removal of individual decay chain radionuclides and therefore U(nat) and Th(nat) adequately represents the uranium and thorium in both the HMC and tailings.

The results of this work this work have been reviewed by JHRC (see Appendix 9) and are summarised below, and show that, the following components of WIM Resources' Avonbank project do not satisfy the statutory definition of a 'nuclear action' under the EPBC Act for the following reasons.

Mining and processing

Mineral sands and rare earth mining or milling are not captured by subparagraph (d) of the definition of 'nuclear action'

under the EPBC Act, nor for that matter any other sub-paragraph. The total activity concentration of the ore is approximately 0.7Bq/g combined Unat and Thnat, which is below the 1Bq/g activity concentration that is required to trigger the “excessive” activity level definition for unsealed sources. In the context of paragraph (g) and R.2.01, the total activity concentration of the ore is well below the 1Bq/g activity concentration that triggers whether a proposal constitutes a prescribed nuclear action for the purpose of sub-paragraph (g).The concentrations of radiation of the ore are also below the levels that constitute a ‘radiation source’ for the purposes of the Victorian Radiation Act 2005.

Tailings management and disposal

The total activity concentration of the combined uranium and thorium concentrations in the tailings is 0.2 Bq/g combined Unat and Thnat., less than the 1 Bq/g activity concentration activity concentration that is required to trigger the ‘excessive’ activity level for unsealed sources, and that triggers whether a proposal constitutes a prescribed nuclear action for the purpose of sub-paragraph (g) (and, for that matter, sub-paragraphs (c) and (e)).The tailings disposal therefore does not meet any aspect of the definition of a ‘nuclear action’ (by virtue of being a ‘nuclear installation’ or a prescribed ‘nuclear action’ under R. 2.01).

Stockpiling

The on-site temporary accumulation (or stockpiling) of final HMC product for export and then transportation should not be considered to meet the requirements for definition of ‘nuclear action.’ The only potentially relevant aspect of the definition of ‘nuclear action’ that could apply is in relation to the stockpiling (“storage”) of final product at the mine site processing plant prior to shipment. However, the final product is not being “stored” in the sense referred to in the Macquarie Dictionary – it is not a warehouse or storehouse, nor kept in readiness for future use.

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Section 6

Environmental record of the person proposing to take the action

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Explain in further detail

Yes

6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application

Nil

6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation's environmental policy and framework?

☑ Yes ☐ No

6.3.1 If the person taking the action is a corporation, provide details of the corporation's environmental policy and planning framework

Policy to be developed once project proceeds

6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?

☐ Yes ☑ No

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 7

Information sources

Reference source

Appendix 3. Avonbank Mineral Sands Project: Survey Findings 2018-2020 (Ecology Australia, 2020)
Appendix 4. Baseline Hydrogeology report (GHD, 2020)
Appendix 5. 2019 Hydrogeology Summary Report, Avonbank Heavy Mineral Sands Project (AECOM 2019)
Appendix 7. Preliminary Soils & Landform assessment (Tonkin, 2018)
Appendix 8. EES Consultation Plan (WIM Resource, 2020)
Appendix 9. Radiation Technical Note,Avonbank (JRHC, November 2019)
Figure 2. Avonbank Project Boundary Layers.pdf
Figures Avonbank.pdf
200218 Proposed Action Shapefiles MGA 1994 Z54.zip
200218_A3_Plan_Proposed Action_Avonbank Project_Rev.02.pdf

Reliability

All technical reports from reputable and experienced consultants. Therefore reliability is high.

Uncertainties

Further technical work to be conducted in most areas to predict specific impacts.

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Section 8

Proposed alternatives

Do you have any feasible alternatives to taking the proposed action?

Yes ☑ No

Australian Government

Department of the Environment and Energy

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Section 9

Person proposing the action

9.1.1 Is the person proposing the action a member of an organisation?

☑ Yes ☐ No

Organisation

Organisation name	WIM RESOURCE PTY LTD
Business name	
ABN	59159389929
ACN	
Business address	Suite 2004, Level 20, 201 Elizabeth Street, Sydney, 2000, NSW, Australia
Postal address	
Main Phone number	(02) 9264 1990
Fax	
Primary email address	mwinternitz@wimresource.com.au
Secondary email address	

9.1.2 I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

☑ Small business

☐ Not applicable

9.1.2.1 You must provide the date/income year that you became a small business entity:

~~01/07/2015~~ July 2012 M.W. 29/11/19

9.1.2.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations *

☐ Yes ☑ No

9.1.3 Contact

First name	Michael
Last name	Winternitz
Job title	Project Manager
Phone	0292641990
Mobile	0467515100
Fax	
Email	admin@wimresource.com.au
Primary address	Suite 2004. Level 20, 201 Elizabeth St, Sydney, 2000, NSW, Australia
Address	

Declaration: Person proposing the action

I, MICHAEL WINTERNITZ **, 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.**

Signature: ..... **Date:** 29/11/2019

I, MICHAEL WINTERNITZ **, the person proposing the action, consent to the designation of** WIM Resource Pty Ltd **as the proponent for the purposes of the action described in this EPBC Act Referral.**

Signature: ..... **Date:** 29/11/19

I have read the Department of the Environment and Energy's guidance in the online form concerning the definition of a small business entity and confirm that I qualify for a small business exemption.

Signature: ..... **Date:** 29/11/19

Australian Government

Department of the Environment and Energy

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Proposed designated proponent

9.2.1 Is the proposed designated proponent a member of an organisation?

☑ Yes ☐ No

Organisation

Organisation name	WIM RESOURCE PTY LTD
Business name	
ABN	59159389929
ACN	
Business address	Suite 2004, Level 20, 201 Elizabeth St,, Sydney, 2000, NSW, Australia
Postal address	
Main Phone number	0292641990
Fax	
Primary email address	mwinternitz@wimresource.com.au
Secondary email address	

9.2.2 Contact

First name	Michael
Last name	Winternitz
Job title	Project Manager
Phone	(02) 9264 1990
Mobile	0467515100
Fax	
Email	mwinternitz@wimresource.com.au
Primary address	Suite 2004, Level 20, 201 Elizabeth Street, Sydney, 2000, NSW, Australia
Address	

Declaration: Proposed Designated Proponent

I, MICHAEL WINTERNITZ **,the proposed designated proponent, consent to the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.**

Signature: mwinternitz **Date:** 29/11/19

Australian Government

Department of the Environment and Energy

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Referring party (person preparing the information)

9.3.1 Is the referring party (person preparing the information) a member of an organisation?

☑ Yes ☐ No

Organisation

Organisation name	WIM RESOURCE PTY LTD
Business name	
ABN	59159389929
ACN	
Business address	Level 2004, Level 20, 201 Elizabeth St,, Sydney, 2000, NSW, Australia
Postal address	
Main Phone number	(02) 9264 1990
Fax	
Primary email address	jyeates@wimresource.com.au
Secondary email address	

9.3.2 Contact

First name	John
Last name	Yeates
Job title	Manager Environment and Approvals
Phone	+61416034159
Mobile	
Fax	
Email	jyeates@wimresource.com.au
Primary address	Suite 2004, Level 20, 201 Elizabeth St, Sydney, 2000, NSW, Australia
Address	

Declaration: Referring party (person preparing the information)

I, JOHN S YEATES **, 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.**

Signature: ..... **Date:** 06/12/2019

Note: PDF may contain fields not relevant to your application. These fields will appear blank or unticked. Please disregard these fields.

Appendix A

Attachment

Document Type	File Name
action_area_images	Figures 2-15 Avonbank.pdf
action_area_images	191106_A3_Avonbank Project_Proposed Action_Location Plan_WIM_Rev.00.pdf
action_area_images	ShapeFile1.zip
action_area_images	Shapefile2.zip
action_area_images	Figure 2.pdf
action_area_images	Figure 7.pdf
action_area_images	Figure 15.pdf
action_area_images	200218_A3_Plan_Proposed Action_Avonbank Project_Rev. 02_WIM.pdf
action_area_images	200218_Proposed Action_Shape Files MGA 1994 Z54.zip
action_area_images	Figures Rev2 Avonbank.pdf
govt_approval_conditions	Letter to WIM Resource_signed.pdf
public_consultation_reports	Appendix 8_EES Consultation Plan.pdf
public_consultation_reports	Appendix 8. EES Consultation Plan.pdf
public_consultation_reports	Figure 2 Avonbank Project Boundary Layers.pdf
public_consultation_reports	Figures Avonbank.pdf
supporting_tech_reports	Appendix 3_Avonbank Mineral Sands Project Surveys 2018. pdf
supporting_tech_reports	Appendix 9_RadiationTechnical Note Avonbank .pdf
supporting_tech_reports	Appendix 3 Avonbank Mineral Sands Project Surveys 2020 Final.pdf
flora_fauna_investigation	Appendix 1_Preliminary Ecological Assesment .pdf
flora_fauna_investigation	Appendix 2_Preliminary Flora and Fauna Assessment .pdf
flora_fauna_investigation	Appendix 3_Project Surveys 2018.pdf
hydro_investigation_files	Appendix 5_ Hydrogeology Summary Report.pdf
hydro_investigation_files	Appendix 4 Baseline Hydrogeology report.pdf

Appendix B

Coordinates

Area 1
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