

SHEET 2 – BIODIVERSITY AND HABITAT

The objective of this information sheet is to:

- summarise the status and the key findings of the biodiversity and habitat study program to date; and
- invite feedback on the draft environment effects statement (EES) scoping requirements relating to biodiversity and habitat.

Status of study program

Study	Consultant	Status
Baseline ecological assessment	Cardno	Complete
Targeted ecological assessment	Ecology and Heritage Partners	Ongoing
Biodiversity impact assessment	Ecology and Heritage Partners	Commencing
Biodiversity offset strategy	Ecology and Heritage Partners	Commencing

Baseline biodiversity surveys for the Project started in 2018 and are now largely complete.



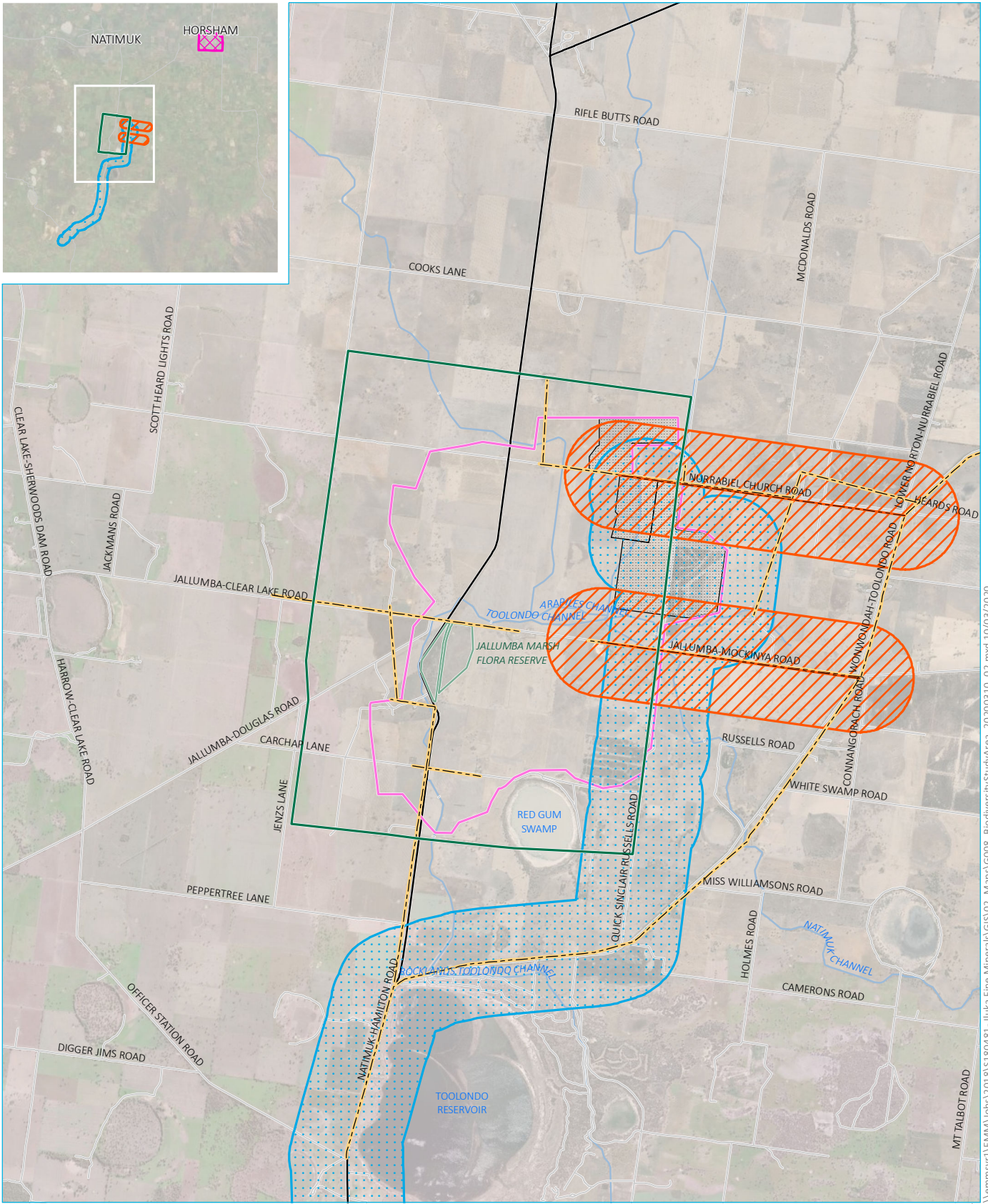
Key findings to date

The baseline biodiversity study area focussed on the mine layout development envelope and immediate surrounds, as shown in Figure 1. The targeted ecological assessment considered a slightly larger area for the mine and included the construction camp and the potential corridors for the pipeline and powerline. Results of the targeted assessments are expected to be ready from approximately April 2020 onward.

The baseline study indicated that the baseline biodiversity study area largely comprises of land used for farming but contains some habitats including mature woodland, large scattered trees, swamps and wetlands that support a range of wildlife. Some of the species are listed as threatened, near threatened, rare, vulnerable and/or endangered under State and/or Commonwealth legislation.

The baseline biodiversity study indicated that a number of listed species or ecological communities have previously been recorded in the biodiversity study area (note targeted assessments are being undertaken to confirm the presence of these species and communities):

- Eight listed under the Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act):
 - Victorian Temperate Woodland Bird Community
 - Semi-arid Northwest Plains Buloke Grassy Woodland Community;
 - Red Gum Swamp Community No. 1;
 - Buloke (*Allocasuarina luehmannii*);
 - Magpie Goose (*Anseranus semipalmata*);
 - Diamond Firetail (*Stagnopleura guttata*);
 - Whiskered Tern (*Chlidonyas hybrida*); and
 - Brown Toadlet (*Pseudophryne bibronii*).



Source: EMM (2020); Iluka Resources (2020); GA (2011); Imagery: Iluka Resources (2016)

0 2 4 km
GDA 1994 MGA Zone 54

KEY

- Biodiversity study area
- Mine layout development envelope
- Plant area development envelope
- Construction camp study area (refer to inset)
- Water pipeline study area
- Electricity powerline study area
- Nature conservation reserve
- Proposed electricity powerline extension
- Existing electricity powerline
- Major road
- Minor road
- Water channel

Biodiversity baseline study area

Iluka Resources Limited
 Technical information sheet 2
 Biodiversity and habitat
 Figure 1

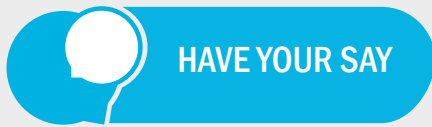


\\emmsvr1\EMM\Jobs\2018\180481- Iluka Fine Minerals\GIS\02_Maps\BiodiversityStudyArea_20200310_02.mxd 10/03/2020

- Six threatened flora species listed under the Victorian Advisory List:
 - Rock Wattle (*Acacia rupicola*);
 - Buloke (*Allocasuarina Luehmannii*);
 - Buloke Mistletoe (*Amyema linophylla subsp.orientalis*);
 - Wimmera Woodruff (*Asperula wimmerana*);
 - Winged Water Starwort (*Callitriche umbonata*); and
 - Leek flax-lily (*Dianella porracea*).
- Seven threatened fauna species listed under the Victorian Advisory List:
 - Spotted Harrier (*Circus assimilis*);
 - Magpie Goose (*Anseranas semipalmata*);
 - Brown Treecreeper (eastern subspecies) (*Climacteris picumnus victoriae*);
 - Diamond Firetail (*Stagonopleura guttata*);
 - Whiskered Tern (*Chlidonias hybrida*);
 - Bearded Dragon (*Pogona barbata*); and
 - Brown Toadlet (*Pseudophryne bibronii*).
- Three threatened ecological communities listed under the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*:
 - Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions;
 - Grey Box (*Eucalyptus microcarpa*) Woodlands and Derived Native Grasslands of South Eastern Australia; and
 - Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains.
- Two threatened fauna species listed under the EPBC Act:
 - Red-tailed Black Cockatoo (*Calyptorhynchus banksii graptogyne*); and
 - Growling Grass Frog (*Litoria raniformis*).

Four declared weeds (Bridal Creeper, Slender Thistle, Spear Thistle and African Boxthorn) and one declared pest (Red Fox) were recorded in the biodiversity study area.





Public comments are invited on the draft scoping requirements in relation to matters that should be investigated and documented in the environment effects statement (EES) process for the proposed Wimmera Project.

The draft scoping requirements are open for public comment until midnight on 31 March 2020.

Any comments received will be considered by DELWP during the finalisation of the scoping requirements and will be treated as public documents. Your comments also will be considered by the proponent in the preparation of the EES. Personal details and identifying features (eg names, addresses and contact details) will be removed before your submission is shared with Iluka Resources Limited. You must provide written consent for DELWP to provide your name and address to Iluka Resources Limited.

Comments should be emailed to:
environment.assessment@delwp.vic.gov.au

Written comments can also be posted to:

*Impact Assessment Unit, Planning
Department of Environment, Land, Water
and Planning
PO Box 500, EAST MELBOURNE, VIC
8002*

To discuss the draft EES scoping requirements with Iluka or for more information please contact Iluka:

Phone: 1800 305 993

Visit: www.iluka.com/engage/wimmera

Email: wimmeraproject@iluka.com

*Drop in: Wimmera community drop-in centre at Horsham Real Estate office
Tuesdays and Fridays 9.30 am–2.30 pm
or by appointment*

Impact assessment and Project design

Assessment of potential Project-related impacts on biodiversity is about to commence. This assessment will consider direct impacts (for example, removal of habitat), as well as indirect impacts (for example, whether changes in groundwater levels or water quality may impact on wetlands immediately surrounding the biodiversity study area).

The assessment will provide further recommendations to manage the potential impacts, with a preference to avoid the impacts wherever possible, then to reduce the impacts, and lastly to provide biodiversity offsets for the impacts where avoidance or reduction are not feasible.

Although the Red Gum Swamp and the Jallumba Marsh Flora Reserve lie within the indicative mineralisation extent, Iluka has designed the mine layout to avoid these areas, due to the biodiversity and cultural heritage values associated with these areas identified during the baseline assessments. The design of stockpiles and other infrastructure within the current mine layout plan also seeks to minimise the impact to remnant patches and individual trees.

Draft EES scoping requirements

The Victorian Department of Environment, Land, Water and Planning (DELWP) has released the draft EES scoping requirements for the Wimmera Project and is seeking public comment. These scoping requirements will guide the technical assessments that will be undertaken as part of the preparation of the EES for the Wimmera Project.

The draft EES scoping requirements are available here: www.planning.vic.gov.au/environment-assessment/browse-projects/projects/wimmera-mineral-sands